MONTH PROTOCOL

BRAIN INJURY & OTHER NEUROLOGICAL CONDITIONS

Dr. Mahmoud Sous Priyanka Yadav

3 MONTH REHAB PROTOCOL BRAIN INJURY & OTHER NEUROLOGICAL CONDITIONS

Don't let these conditions hold you back any longer - join us and start your journey to recovery today!

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Dr. Mahmoud Sous - Ph.D.

During the period of 1995-1999, I went to the medical school in Poland to research about the various methods of back pain treatment. After finishing my PhD, I took variety of courses including naturopath, acupuncture, and manual techniques. This gave me an idea that exercises, and massage could be helpful in treatment of chronic pain. But my findings didn't stop me here, I also worked as a naturopath practitioner in Canada where I got familiar about treatments with Chinese medicines, osteopath techniques and some other manual therapies which helps in pain management.

Fixing injuries requires an understanding of anatomy and biomechanics. That is why my research and treatment belong to the holistic approach of using different techniques and remedies for the treatment of back pain. In 1990, I realize that there are some complex spinal aspects and issues which leads to of back pain. So, from my case studies I formulated a guideline which is clear and easy to understand and will fix your issues.



My goal is to help people visualize how the body functions and what happens inside when you experience pain. Healing requires to focus on one's action because pain results due to faulty actions and movements. This thought motivated me to work on a book which will include all home remedies where people can treat themselves to fix their pain. I have included knowledge based on my clinical research using manual massage therapy, food habits, nutrition facts, heat, sauna, hydro-therapy, cold water treatments which overall helps in pain management. It gives me pleasure to introduce this book to the community where I have shared all my experienced treatment plans.



Priyanka Yadav (Physiotherapist)

I started my career in 2011, since then I have worked as a Physiotherapist in several clinics and hospitals in India. Working mostly in the Outpatient department made me realize that Physio's role is extremely crucial in the rehabilitation and recovery process of a patient. My desire to reach out to more people motivated me to work for this book. Have worked with Dr. Mahmoud on several research books on self-pain management. We have been constantly working on curating the best suited protocol for various Musculoskeletal

conditions. Additionally, we have also included approaches with alternative medicine.

We Believe in a Pain-Free Sciety!

Dr. Sous's Team who have contributed with theiw approaches in this book.

- * Priyanka Yadav Physiotherapist / Massage Therapist
- * Mandeep Kaur Physiotherapist
- * Youssef Elaridi RMT
- * Haitham Ajoury Layout & Design

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A 3-Month Rehabilitation Protocol for Brain Injury and Other Neurological Conditions



Mission Statement

This 3-month rehabilitation protocol is for people who are suffering from Stroke, Brain Injury, Concussion, Parkinson's disease, Multiple Sclerosis, Huntington's disease, and many more. We understand the challenges that people face when dealing with these conditions, which is why we've curated a comprehensive program that can be completed from the comfort of your own home. With our resources and guidance, you'll have the tools you need to rehabilitate yourself and regain control of your life. Don't let these conditions hold you back any longer - join us and start your journey to recovery today!

Introduction

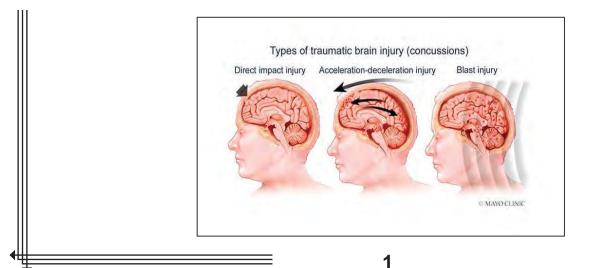
Your brain is the ultimate command center of your body, a complex web of neurons and nerves that work together with the spinal cord to form the nervous system. From the slightest touch to the most intense emotion, every sensation and movement is regulated by this system. Unfortunately, the brain is not invincible, and when it becomes damaged, it can lead to a wide range of complications. Memory loss, sensory impairment, and even changes in personality are just some of the effects that can arise from brain disorders. These disorders come in many forms and can have a profound impact on your life. This includes conditions that are caused by:

- Illness like Neurodegenerative diseases
- Genetics
- Traumatic injury

Brain injuries

Brain injuries often occur as a result of a severe car accident, fall or sports-related incident. There are two types of brain injury: traumatic and non-traumatic brain injury. While there are two types of brain injury, traumatic and non-traumatic, both can have a significant impact on an individual's life.

Traumatic brain injury (**TBI**) is a condition that develops when the brain is subjected to a forceful blow, jolt or penetration injury. This kind of injury can disrupt normal brain function, leading to a range of physical and cognitive symptoms.





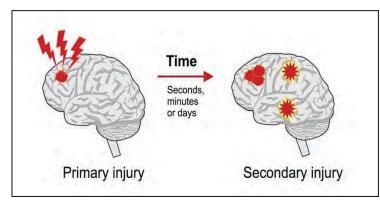
Non-traumatic brain injury can arise from several factors such as illness, oxygen deprivation, metabolic disorders, aneurysms, cardiac arrest or near-drowning experience. Unlike TBI, non-traumatic brain injury is not caused by external physical force to the head, but can still have severe consequences.

What happens after brain injury?

Immediately following a brain injury, two things occur:

1. Brain tissue reacts to the trauma from the injury with a series of biochemical and other physiological responses. Substances which are present in the brain cells starts getting accumulated in brain, further damaging, and destroying the cells which is called secondary cell death.

2. Depending on the severity of brain injury, effects may include temporary loss of consciousness or coma, respiratory (breathing) problems, and/or damaged motor functions.



Waking up following loss of consciousness is not immediate. It is important to be aware of the various neurologically based symptoms that may occur during this period, such as irritability, aggression, posturing, and other issues. Post-traumatic amnesia (PTA) is also typically experienced as an injured person regains consciousness. PTA refers to the period when the individual feels a sense of confusion and disorientation (i.e., wondering who or where they are and what has happened to them) and an inability to remember recent events.

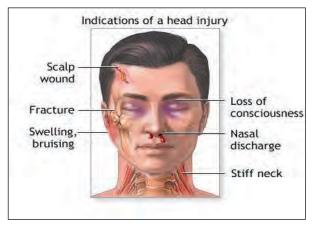


As time passes, these responses typically subside, and the brain and other body systems approach stability. Unlike bones or muscle tissue, the neurons in the brain do not mend themselves. New nerves do not grow in ways that lead to full recovery. In fact, certain areas of the brain remain damaged, and the functions that were controlled by those areas may be disrupted and lead to changes in the individual's life.

How to know if someone is having brain injury?

After an impact or injury to the head, a person can experience a variety of symptoms. Common symptoms of a brain injury include:

- Thin, clear liquid coming out of the ears or nose
- Loss of consciousness
- The black center of the eye is large and does not get smaller in light or unequal size of pupils.
- Vision changes blurred vision or seeing double, not able to tolerate bright light, loss of eye movement, blindness
- Dizziness, balance problems
- Difficulty breathing
- Not alert and unable to respond to others



- Paralysis, or difficulty moving body parts
- Weakness, Poor coordination
- Slow pulse, slow breathing rate, with an increase in blood pressure
- Headache, vomiting, confusion
- Ringing in the ears, or changes in the ability to hear
- Difficulty with thinking skills
- Inappropriate emotional responses, difficulty speaking
- Body numbress or tingling
- Loss of bowel control or bladder control

Types of Traumatic Brain Injury

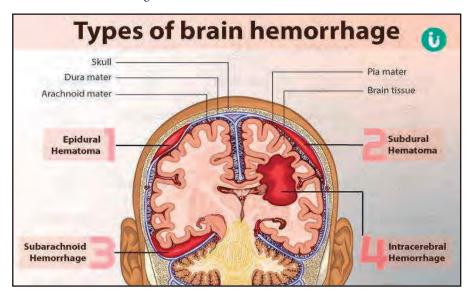
Doctors typically group traumatic brain injuries into two main categories: closed injuries and open (or penetrating) injuries. **Closed injuries** refer to TBIs that do not fracture the skull. Open injuries, on the other hand, occur when the skull bone breaks or is penetrated, leaving the brain exposed to the elements.

Within these two groups there are several different types of traumatic brain injuries that can occur:

1. Concussions: Concussions are the most common type of traumatic brain injury. When a strong force strikes your head, your brain moves in the direction of the force until it collides with your skull, causing damage. Concussion symptoms can range from mild to severe, and in some cases can even cause life-long difficulties. If concussion symptoms persist for longer than a month, then you most likely have developed post-concussion syndrome.



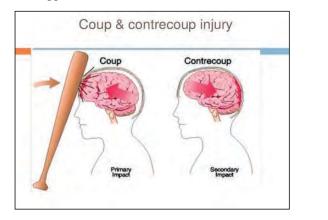
Contusions: These often accompany concussions. A contusion is essentially a bruise on the brain, which means it is a mild form of bleeding. If a contusion does not heal on its own, it can turn into a hematoma, which doctors can remove through surgery.
Brain Hemorrhages: A brain hemorrhage refers to uncontrolled bleeding on the surface of the brain or within the brain tissue itself. Hemorrhages that occur in the space surrounding the brain are known as subarachnoid hemorrhages, while those that originate in the cerebral matter are called intracerebral hemorrhages.



4. Intracranial Hematomas: Hematomas are collections of blood outside of blood vessels. Large hematomas that occur in the brain can lead to serious injury and even death if left untreated.

5. Coup-Countercoup Brain Injury: Another serious type of traumatic brain injury is known as a coup-countercoup injury. The terms coup and countercoup are French for "blow" and "counterblow." Therefore, a coup-countercoup injury actually refers to two separate injuries:

- Coup injury which occurs directly under the point of impact.
- Countercoup injury which occurs on the opposite side of the brain from where the blow struck.

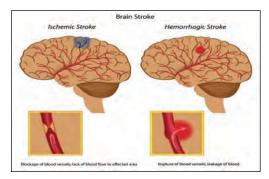


6. Stroke: A stroke occurs if the flow of oxygen-rich blood to a portion of the brain is blocked. Without oxygen, brain cells start to die after a few minutes. This can lead to stroke, which can affect nerve tissue and cause weakness, loss of sensation, numbness, and/or pain in the extremities. Sudden bleeding in the brain also can cause a stroke if it damages brain cells. A stroke is a medical emergency, and prompt treatment is crucial. Early action can reduce brain damage and other complications.

What are the types of stroke?

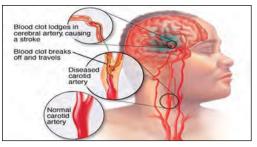
There are two types of stroke:

- Ischemic stroke is caused by a blood clot that blocks or plugs a blood vessel in the brain. This is the most common type; about 80% of strokes are ischemic.
- Hemorrhagic stroke which is caused by a blood vessel that breaks and bleeds into the brain.



Another condition that's similar to a stroke is a transient ischemic attack (TIA). It's sometimes called a "mini-stroke." TIAs happen when the blood supply to the brain is blocked for a short time. The damage to the brain cells isn't permanent, but if you have had a TIA, you are at a much higher risk of having a stroke.

A stroke is a medical emergency, and prompt treatment is crucial.



What are the symptoms of stroke?

The symptoms of stroke often happen quickly. They include:

- Sudden numbness or weakness of the face, arm, or leg (especially on one side of the body)
- Sudden confusion, trouble speaking, or understanding speech
- Sudden trouble seeing in one or both eyes
- Sudden difficulty walking, dizziness, loss of balance or coordination
- Sudden severe headache with no known cause.



Common Complications after your Stroke:

1. Blood clots or deep vein thrombosis (DVT)

DVT is a serious medical condition that can occur when blood clumps together and forms a solid mass. When you are in the hospital or immobile for a long time, you are at risk of developing a blood clot. This is because when you are inactive, blood flow slows down, and blood can pool in your legs. Depending on what caused your stroke, you may have a greater risk of blood clots.



In the hospital, healthcare providers focus on DVT as it is a common complication for patients who are bedridden. They may use compression stockings, blood thinners, and encourage you to move as much as possible to prevent blood clots from forming. But even when someone is doing better and is mobile, clotting is something to watch. It is important to maintain a healthy lifestyle by exercising regularly, eating a balanced diet, and avoiding smoking or excessive alcohol consumption to reduce the risk of blood clotting. If you experience symptoms such as pain, swelling, or redness in your legs, shortness of breath, or chest pain, it is important to seek medical attention immediately as these could be signs of DVT.

2. Involuntary muscle tightening or spasticity

When a stroke occurs, the hands may experience increased tone or stiffness due to disrupted connections between the brain and the hand muscles, this is called spasticity. Without this strong neural connection, it may become more difficult to fully straighten the fingers or grasp an item.



3. Decreased hand strength and function

The grip, strength, and overall function of the hands is often impaired, making it difficult to completely lift, grasp, or release items. This complicates everyday tasks and possibly the ability to be independent with functional activities. Loss of sensation & sometimes pins-and-needles feeling.



4. Aphasia and other speech disorders

Aphasia and other speech disorders can be incredibly challenging for those who experience them. Damage to the areas of the brain

that control language can result in difficulties with speaking, understanding, reading, and writing. Aphasia can be caused by a variety of factors, including stroke, traumatic brain injury, brain tumors, or infections. In addition to aphasia, individuals may experience other speech disorders such as apraxia, dysarthria, or stuttering.



Fortunately, there are resources available to help those with aphasia and other speech disorders. A speech-language pathologist (SLP) can assess the individual's communication abilities and design a personalized therapy plan. The goal of therapy is to improve communication skills and overall quality of life for the individual and their family.

Chronic headaches

This complication is more common in those who have had a hemorrhagic stroke, as blood from the hemorrhage may irritate the brain. You should not use over-the-counter medications without consulting your doctor.

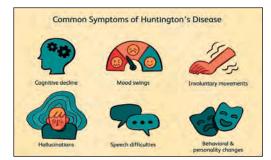


Neurodegenerative diseases

Neurodegenerative disorders encompass a wide range of conditions that result from progressive damage to cells and nervous system connections that are essential for mobility, coordination, strength, sensation, and cognition. Neurodegenerative diseases cause your brain and nerves to deteriorate over time. They can change your personality and cause confusion. Some brain diseases, such as Alzheimer's disease, may develop as you age. They can slowly impair your memory and thought processes. Other common neurodegenerative diseases include:

- Huntington's disease
- Amyotrophic lateral sclerosis (ALS), or Lou Gehrig's disease
- Parkinson's disease
- Ataxia
- Dementia/ Memory Disorder

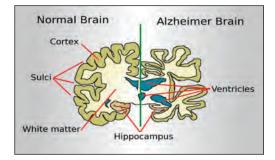
Huntington's disease: is a rare, inherited disease that causes the progressive breakdown (degeneration) of nerve cells in the brain. Huntington's disease has a wide impact on a person's functional abilities and usually results in movement, thinking (cognitive) and psychiatric disorders. It usually causes movement, cognitive and psychiatric disorders with a wide spectrum of signs and symptoms.



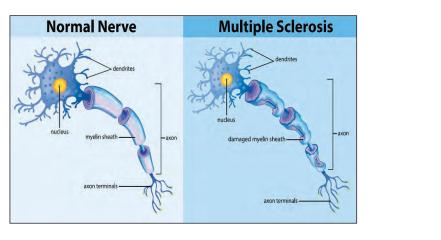
ALS or amyotrophic lateral sclerosis: is a progressive neurodegenerative disease that affects nerve cells in the brain and spinal cord that controls voluntary muscle movement. In ALS, motor neurons (nerve cells that control muscle cells) are gradually lost. As these motor neurons are lost, the muscles they control become weak and then non-functional, thus leading to muscle weakness, disability, and eventually death.



Alzheimer's disease: Alzheimer's disease (AD) is a neurodegenerative disease that is characterized by damage to areas of the brain that are responsible for thinking, learning and memory i.e. cognition.



Multiple sclerosis (MS): is a long-lasting (chronic) disease of the central nervous system. It is thought to be an autoimmune disorder, a condition in which the body attacks itself by mistake. In MS, the immune system attacks the protective sheath (myelin) that covers nerve fibers and causes communication problems between your brain and the rest of your body. Eventually, the disease can cause permanent damage or deterioration of the nerve fibers.



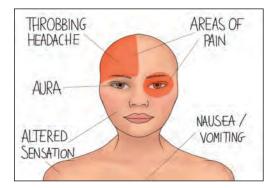
Parkinson's disease: is an age-related degenerative brain condition, meaning it causes parts of your brain to deteriorate. It's best known for causing slowed movements, tremors, balance problems and more. Most cases happen for unknown reasons, but some are inherited.



Dementia: is a broad term that describes a loss of thinking ability, memory, attention, logical reasoning, and other mental abilities. These changes are severe enough to interfere with social or occupational functioning.

Other Neurological Disorders

Migraine: is a chronic neurovascular condition that is characterized by severe headache that is usually one sided. This headache is usually accompanied by photophobia and nausea.



Depression: Depression is a mood disorder that causes a persistent feeling of sadness and loss of interest. Also called major depressive disorder or clinical depression, it affects how you feel, think and behave and can lead to a variety of emotional and physical problems. **Anxiety:** Anxiety disorders are a type of mental health condition. Anxiety makes it difficult to get through your day. Symptoms include feelings of nervousness, panic and fear as well as sweating and a rapid heartbeat.



All of the conditions that we have mentioned till now are some of the most common conditions related to the brain that can affect the general population. It's crucial that we discuss these conditions before we begin, so you can make an informed decision about your health. This brief introduction will help us determine whether our protocol is the right fit for you.

Get ready to embark on a journey of wellness! We're thrilled to share with you the exciting benefits of the supplements, herbs, herbal teas, seeds, and essential oils we'll be including in our protocol. This brief introduction will give you a sneak peek into the powerful ingredients that will help you achieve optimal health.

Goals of our 3-Month Rehabilitation Protocol

Typical goals for our patients might include:

- Improving the ability to focus and pay attention
- Remembering and learning new things
- Performing activities of daily living
- Improving Memory

What you are going to learn?

Welcome to our 3-month protocol that will help you with the rehabilitation process. Our team has broken down the entire recovery process into categories that will not only help you recover faster, but also make you feel better than ever before. First on the list are supplements, which are packed with nutrients to fuel your body's healing process.



Next up are the essential oils, seeds, and herbs that work wonders for the brain. Then, we have braces and devices that will aid in your rehabilitation.



But that's not all! Our list also includes foods, herbal teas, and juices that will provide your body with the nourishment it needs to heal.





Last but not least, we've compiled all the information you need into one comprehensive book that covers every aspect of your rehabilitation. Don't wait any longer to see results - try our program today and start your journey towards a better recovery!

What are Supplements?

Supplements are nutritional products that are designed to complement a person's diet and provide essential nutrients that may be lacking in their daily intake. They are available in many different forms, including pills, capsules, liquids, powders, and even gummies. Supplements can contain a variety of nutrients, including vitamins, minerals, amino acids, and herbal extracts. Some supplements are intended to help with specific health conditions, while others are more general and aim to support overall health and well-being. These supplements contain a range of nutrients, vitamins, and minerals that have been shown to support and improve cognitive function.



There are many different types of supplements, including vitamins, minerals, amino acids, proteins, probiotics, and fibers. Vitamins are essential nutrients that the body needs in small amounts for proper functioning. There are 13 different vitamins, including vitamins A, C, D, E, and K, each with its own unique benefits. Minerals are also crucial for optimal health and include calcium, iron, magnesium, and potassium. Amino acids are the building blocks of protein, and are essential for muscle growth and repair. Proteins are important for building and repairing tissues, and can also be used as a source of energy. Probiotics are live bacteria and yeast that are beneficial for gut health and digestion. Finally, fibers are a type of carbohydrate that the body cannot digest, and are important for maintaining digestive health, regulating blood sugar levels, and reducing the risk of certain diseases. While supplements can be helpful in providing additional nutrients that may be lacking in a person's diet, it's important to remember that they should not be used as a replacement for a healthy, balanced diet and regular exercise.

Some common examples of supplements include multivitamins, protein powders, omega-3 fatty acids, and probiotics. Supplements are not meant to replace a healthy and balanced diet but rather to complement it. While they can be beneficial for some individuals, they may not be necessary for everyone. Supplements can be used for various purposes, including improving athletic performance, supporting immune function, promoting heart health, and reducing inflammation. There are a variety of supplements available on the market that can help to protect our brain health. One important supplement for brain health is vitamin B12. This vitamin is essential for the growth and maintenance of the nervous system and can help to improve cognitive function, especially in older adults.

Supplements containing antioxidants such as vitamin C and E can also help to protect our brain health. Antioxidants help to reduce oxidative stress in the brain, which can lead to cell damage and cognitive decline. They can also help to improve blood flow to the brain and reduce inflammation, both of which are important for maintaining healthy brain function.

In addition to these supplements, there are also herbal supplements that can help to protect our brain health. Ginkgo biloba, for example, has been shown to improve blood flow to the brain and improve cognitive function. Bacopa monnieri is another herb that has been shown to improve memory and cognitive function.



It's important to note that while supplements can be helpful for protecting our brain health, they should not be used as a replacement for a healthy diet and lifestyle. Eating a balanced diet that includes plenty of fruits, vegetables, and whole grains, getting regular exercise, and getting enough sleep are also important for maintaining healthy brain function. However, for those who are unable to get all the nutrients they need from their diet, supplements can be a helpful addition to support brain health.

What are Essential Oils?

Essential oils are highly concentrated plant extracts that carry the natural fragrance and essence of a particular plant. These oils are extracted from various plant parts, including leaves, flowers, roots, and bark, and are known for their therapeutic properties. Essential oils have been used for centuries in aromatherapy, a form of alternative medicine that uses natural plant extracts to promote physical and emotional well-being. These oils are believed to have a range of health benefits, such as reducing stress and anxiety, promoting relaxation, and improving sleep quality.



Essential oils such as lavender, chamomile, and peppermint are known for their calming effects and can help reduce stress levels, leading to improved cognitive function, better sleep, and reduced inflammation. In addition to their calming effects, essential oils also have antioxidant properties that can help protect the brain from damage caused by free radicals. Essential oils such as frankincense and rosemary have been shown to improve memory and cognitive function, making them beneficial for individuals with Alzheimer's or dementia. Essential oils can also benefit general health by boosting immunity and reducing inflammation. Oils such as tea tree and eucalyptus have antibacterial and antiviral properties that can help fight off infections, while oils such as ginger and turmeric can help reduce inflammation in the body. It's important to note that essential oils should be used with caution and under the guidance of a healthcare professional. While they can provide many benefits, they can also be harmful if not used properly.

Essential oils should be diluted before use and should not be ingested without the advice of a qualified practitioner. In conclusion, essential oils have many potential benefits for brain and general health. They can help reduce stress, improve cognitive function, boost immunity, and reduce inflammation. However, it's important to use them safely and under the guidance of a healthcare professional.

How to use these Essential oils in our day-to-day life?

If you're interested in how effective Essential oils can be, and which ones to use in support of your health goals, it is helpful to learn different ways to use your favorite Essential oils. Here are some common ways you can use these in your day-to-day life as you work toward wellness.

AROMATHERAPY

Aromatherapy is a holistic healing treatment that uses natural plant extracts from flower, herb, and tree parts, like bark, roots, peels, and petals to promote health and well-being. Sometimes it's called essential oil therapy. Aromatherapy uses aromatic essential oils medicinally to improve the health of the body, mind, and spirit. It enhances both physical and emotional health. Aromatherapy has

been used for centuries. When inhaled, the scent molecules in essential oils travel from the olfactory nerves directly to the brain and especially impact the amygdala, the emotional center of the brain.



How Aromatherapy Works

Experts think aromatherapy activates areas in your nose called smell receptors, which send messages through your nervous system to your brain.

The oils may activate certain areas of your brain, like your limbic system, which plays a role in your emotions. They could also have an impact on your hypothalamus, which may respond to the oil by creating feel-good brain chemicals like serotonin. Essential oils can also be absorbed by the skin. A massage therapist might add a drop or two of wintergreen to oil to help relax tight muscles during a rubdown. A skincare company may add lavender to bath salts to create a soothing soak. These small herbal oils are potently aromatic and can quickly relax the mind while keeping you alert and focused.

Aromatherapy works through the sense of smell and skin absorption using products such as these:

- Diffusers
- Aromatic spritzers
- Inhalers
- Bathing salts
- Body oils, creams, or lotions for massage or topical application.
- Hot and cold compresses
- Clay masks

Here are some ways you can use essential oils:

Diffuse them

You can diffuse essential oils, which is a type of aromatherapy. It's a great way to change your mood quickly. As you breather in, the oil's aroma immediately stimulates your central nervous system, triggering an emotional response. It can reduce anxiety and stress response quickly. Mix essential oils and water in an essential oil diffuser and turn on the magic. A diffuser is a device that disperses tiny oil particles around the room so you can breather them in. Follow your diffuser's directions for the right oil-to-water ratio.



There are several other aromatherapy methods. Whichever method you choose, avoid direct contact with the essential oil and dilute it first.

Other aromatherapy methods include:

• Dry evaporation. Put a few drops of essential oil on a cotton ball and smell the aroma as it disperses.



• The old-fashioned way. Take deep breaths of the aroma after opening the bottle.



• Steam inhalation. Put a few drops of essential oil in a bowl of hot water. Put your head over the bowl, a towel over your head and breathe in the steam.



• Aromatherapy accessories: Necklaces, bracelets and keychains made with absorbent materials you apply essential oils to and sniff throughout the day.



• Aromatic spritzers: An aromatherapy spritzer is a simple combination of water and essential oils. Sometimes there are additional ingredients too (such as a solubilizer). You may hear aromatherapy spritzers called by the following alternate names aromatherapy

spray, aromatherapy mist, aromatherapy spritzer.



Tips for Using Aromatherapy Spritzers

Here are a few ways in which you can use an aromatherapy perfume spritzer:

- 1. Spray a little on your pillow to help you drift off to sleep at night.
- 2. Freshen up your car with a few squirts instead of using a standard car air freshener.
- 3. Use a spritzer as a personal perfume, instead of a commercial perfume.
- 4. Use it as an air freshener in the bathroom or the kitchen to disperse unpleasant smells.
- 5. Freshen up your laundry with a spritzer.
- 6. Help calm baby with a squirt of spritzer on their bedding.

There are all sorts of essential oils that you can add to a spritzer; just make sure you choose the right essential oil blend for your situation. For example, calming essential oils include lavender, romantic essential oils include ylang ylang, uplifting essential oils include sweet orange and antiseptic essential oils include tea tree.

- Topical applications: A mixture of essential oils with a carrier oil such as olive, jojoba or coconut oil that can be massaged into skin. Because essential oils are concentrated, they can cause irritation. Avoid using them full-strength on skin. How to use essential oils for massage will be discussed later in details.
- Roll on your skin. You can also apply essential oils to your skin, where it's absorbed into your body. You should not apply directly most essential oils to your skin without diluting them. With few exceptions, it's best to dilute the essential oil with a carrier oil, such as coconut or jojoba oil, to avoid skin irritation. Usually, a few drops of essential oil to an ounce of carrier oil are the concentration





To do an allergy test:

1. Dilute the essential oil in a carrier oil at twice the concentration you plan to use.

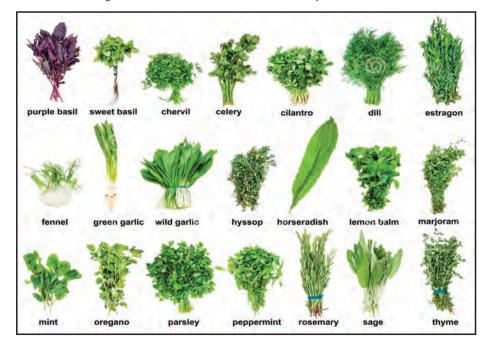
- 2. Rub the mixture into an area the size of a quarter on the inside of the forearm.
- 3. If there is no allergic response within 24 to 48 hours, it should be safe to use.

Things to remember:

- Essential oils are so strong, be mindful about why and how you're using them. Only small amounts typically just a few drops are used.
- It's also a good idea not to use them routinely, as your body can get used to them, lowering their effectiveness.
- You can use these alone or in any combination.

What are Herbs?

Herbs refer to plants that are used for medicinal, culinary, or aromatic purposes. They are typically the leaves, flowers, stems, or roots of plants and can be used in various forms such as teas, capsules, tinctures, or essential oils. The benefits of herbs to our health are numerous. They have been used for centuries to treat various ailments and conditions and are known for their healing properties. Some of the most common herbs used for medicinal purposes include ginger, garlic, turmeric, and chamomile. Ginger is known for its anti-inflammatory properties and is often used to treat nausea and vomiting. Garlic is known for its antibacterial and antifungal properties and is used to treat infections. Turmeric is known for its antioxidant properties and is used to reduce inflammation and pain. Chamomile is known for its calming effects and is often used to treat anxiety and insomnia.



In addition to their medicinal properties, herbs are also used in cooking to add flavor to dishes. Herbs such as basil, thyme, and rosemary are commonly used in Mediterranean cuisine, while cilantro and cumin are used in Mexican cuisine. Herbs not only add flavor to dishes but also provide numerous health benefits. For example, basil is known for its anti-inflammatory and antibacterial properties, while thyme is known to boost the immune system.

Furthermore, herbs are also used in aromatherapy, which is the use of essential oils to promote physical and mental well-being. Essential oils such as lavender, peppermint, and eucalyptus are commonly used in aromatherapy to reduce stress and anxiety and promote relaxation. Lavender is known for its calming effects, while peppermint is known to improve focus and concentration. In conclusion, herbs have been used for centuries to treat various ailments and conditions, add flavor to dishes, and promote physical and mental well-being. They are an excellent addition to any diet and can be used in various forms to reap their benefits. When used correctly, herbs can be a powerful tool for maintaining good health and promoting overall well-being.

What is herbal tea?

Herbal tea is a drink made from steeping herbs, spices, or other plant material in hot water. Herbal tea is also known as tisane. You can make an herbal decoction using herbs, roots or even spices, omitting the tea powder or leaves. As these teas don't come from the camellia sinensis tea plant they are caffeine-free and often drank for their abundant natural health properties. Certain herbs provide the greatest benefits when infused into water, and brewing tea is a great way to achieve that goal. Through aqueous extraction methods, you can draw beneficial compounds out of the herbs, allowing you to experience the benefits and enjoy their texture, color and aroma.



History

In China tea is pronounced as 'tu' means a bitter herb. If you have ever tasted tea leaves or grounded tea grains, you know the taste. In the Mandarin language the word is 'cha,' and that's how it became 'chai' in India.



Initially, tea was not a leisure drink, and was used for its health benefits. Tea leaves were boiled in the water to prepare a concentrated drink, like medicine. As the centuries passed, just like everything else, tea making techniques evolved too. Herbal tea makes a perfect choice of beverage for the start of your day, makes a warm drink to have before you go to bed, and makes a fine choice of drink to have in between your meals too.

You can drink herbal teas hot or cold and as they come without the caffeine, they can be enjoyed any time of day or night. Just like there is a ton of flora and plant matter out there, there are a ton of different herbal teas too. Some of the most common herbal teas include:

- Chamomile tea
- Mint tea
- Ginger tea
- Turmeric tea
- Hibiscus tea
- Rooibos tea
- Elderberry tea
- Cinnamon tea

Benefits of Herbal Teas

Given the lifestyle of urban people these days, herbal tea is a boon to mankind as it provides specific benefits-including digestion, detoxification, and weight loss. Rich in antioxidants, minerals, and vitamins, it not only makes your body healthy but also helps in relaxing, recovery and refreshing your mind.

1. Anti-ageing

Antioxidants found in herbal tea helps in slowing down the ageing process. They also prevent free radical damage and restores the age of your cells in the body. This makes your skin look flawless and younger.



2. Relieve Stress and Anxiety

Herbal teas calm and relax the mind, relieving stress and anxiety. Since it calms the mind, drinking herbal tea before going to sleep also helps people who suffer from insomnia.



Chamomile tea is one of the best teas for stress relief and difficulty sleeping. The comforting effect may also act as a mild anti-depressant for some as it stimulates the brain to reduce feelings of depression.

3. Detoxification

It's a best way to detoxify your body on a regular basis as its easy to brew a cup of herbal tea.



4. Fights the Cold

Herbal teas are great for treating a cold. The elder tree herb is one of the best for fighting a cold as it has properties that clear the nasal

passages and stops heavy coughs. It can also reduce the symptoms of asthma.



5. Improves Digestion

One of the great health benefits of herbal tea is that they help with the breakdown of fats and speed up the emptying of the stomach. Doing so, they can reduce symptoms of indigestion, bloating, and vomiting. Some of the best teas for these symptoms are dandelion, chamomile, cinnamon, peppermint, and ginger tea.

6. Boosts Immune System

The antioxidants and vitamins found in herbal teas are great for helping fight disease and infections. They can protect against oxidative stress and lower the risk of chronic disease. Some of the best herbal teas for boosting your immune system are elderberry, echinacea, ginger, and licorice root tea.



7. Reduces Inflammation

Daily drinking of herbal tea can greatly help those that suffer from arthritis. Herbal tea can reduce pain, swelling, and tiredness in joints. Ginger is actually one of the best herbs to relieve inflammation, due to its main component, gingerol. This makes the tea an ideal treatment for joint and muscle pain.

8. Lower Blood Pressure

Instead of taking pills, try drinking herbal tea to lower your blood pressure instead. Herbal teas such as Hibiscus can decrease blood pressure without any negative side effects due to the chemicals it contains.



9. Great for Skin Health

Herbal tea is a useful treatment for acne, without the side effects that some medications cause. The tea can either be ingested normally or by directly applying the tea onto the skin. Rooibos and chamomile tea are some of the best teas for treating the skin due to their antioxidants and antibacterial properties. Spearmint tea may also work as it reduces the breakout of acne.

No matter what combination of herbs you choose, you can brew tea from your preferred mix of fresh or dry herbs. Simply fill your

tea infuser with your herb mixture and steep in a mug of hot water to create your hot brew. To support environmental sustainability, choose a reusable tea infuser that's made of metal, silicone, or fabric. Make the most of your fresh leaves and enjoy a soothing cup of herbal tea made from the fresh herbs in your garden.



Directions to make Herbal Tea:

If you have fresh herbs in your garden, you can remove leaves from plant stems and chop roughly to expose surface area. If you don't have fresh herbs available, you can also use the dried herb or leaves for similar results.



- Aim for about 2 tablespoons of herbs per cup of water (measurements may vary depending on herbs).
- Heat water and herb mix and remove from heat just before the water reaches a boil.
- Allow the tea to steep for 5-10 minutes depending on desired strength of tea.
- Strain tea through a colander or fine mesh into a teapot or mug.
- Serve hot or refrigerate for iced tea. Add a drop of honey or maple syrup if desired.

What Are Seeds?

The official seeds definition is a type of embryonic plant that is surrounded by a protective outer covering. Seeds are produced by the ovule of the plant following its fertilization by pollen and composed of two main structures: the embryo and the seed coat.



Seeds are the tiny, nutrient-dense powerhouses that are often found in fruits, vegetables, and nuts. They are a rich source of vitamins, minerals, fiber, and healthy fats. Seeds come in various shapes, sizes, and colors and are packed with essential nutrients that our body needs to function properly. Some of the most popular seeds include chia seeds, flaxseeds, pumpkin seeds, sunflower seeds, hemp and

sesame seeds.

Benefits of Seeds:

Seeds are incredibly beneficial to our health. They are rich in antioxidants, which protect our cells against free radicals and reduce the risk of chronic diseases such as cancer, heart disease, and diabetes. Seeds are also an excellent source of fiber, which supports healthy digestion and lowers the risk of constipation, bloating, and other digestive issues. The high fiber content in seeds also helps to reduce cholesterol levels, which in turn, lowers the risk of heart disease. In addition to fiber, seeds are also rich in healthy fats, including ome-ga-3 and omega-6 fatty acids, which are essential for brain health, heart health, and overall well-being. These healthy fats also support healthy skin, hair, and nails. Seeds are also a great source of plant-based protein, which is important for muscle growth and repair, and maintaining healthy bones, skin, and hair. Seeds are incredibly versatile and can be easily incorporated into a healthy diet. They can be added to smoothies, yogurt, oatmeal, salads, and baked goods. They can also be eaten as a snack on their own or mixed with other nuts and dried fruits. Overall, seeds are an excellent addition to any healthy diet and provide numerous health benefits that support overall well-being.

Before we even start the protocol we need to pay attention to some do's & don'ts to prevent ourselves from certain activities that may eventually lead to brain damage. As individuals, we all have the power to make choices that can affect our physical and mental wellbeing, and one of the most significant factors that contribute to our overall health is our diet and lifestyle.

Preventive Measures:

There are a number of things people should avoid in order to prevent brain damage. The brain is one of the most important organs in the body, and it is important to take care of it.



1. One of the most important things people should avoid is smoking. Smoking can cause damage to the brain and increase the risk of stroke and other health problems.



2. Another thing people should avoid is excessive alcohol consumption. Drinking too much alcohol can lead to brain damage and other health problems.



3. People should also avoid using drugs, as they can cause damage to the brain. Using drugs can lead to addiction, which can cause a number of health problems, including brain damage.

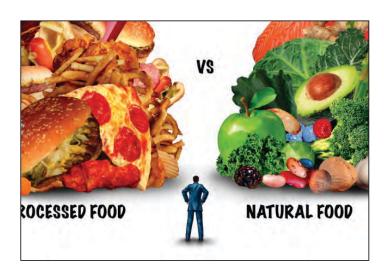


4. It is also important to avoid head injuries, as they can cause brain damage. This includes avoiding contact sports without proper protective gear and not wearing a helmet when riding a bike or motorcycle. Wearing helmets while riding bikes or playing sports, using seat belts while driving, and avoiding risky activities like bungee jumping and skydiving can all help prevent head injury.



5. People should also avoid stress, as it can cause damage to the brain. Stress can lead to anxiety, depression, and other health problems that can have an impact on the brain.

6. Additionally, people should avoid eating processed foods and foods that are high in saturated fats and sugar, as they can cause damage to the brain. A diet rich in fruits, vegetables, whole grains, and lean proteins can provide essential nutrients that support brain function.



7. People should also avoid staying up late and not getting enough sleep. Lack of sleep can cause damage to the brain and lead to a number of health problems. It is important to get enough sleep each night to ensure that the brain is functioning at its best.



8. Other things people should avoid include exposure to toxins, such as lead and mercury, and not wearing a seatbelt when driving or riding in a car.

9. Additionally, people should exercising regularly, as exercise is important for maintaining brain health.

10. Engaging in activities like reading, solving puzzles, or learning new skills can help keep the brain active and prevent cognitive decline.

11. It is also important to take care of your mental health, as mental health problems can have an impact on the brain. Activities like yoga, meditation & breathing exercise are the best way to keep your mental health at the max.

By following a healthy lifestyle, protecting your head, staying mentally active, and managing stress levels, you can promote brain health and prevent potential damage.

FIRST MONTH PROTOCOL:

I. SUPPLEMENTS GOOD FOR THE BRAIN



Taking care of our brain health is essential for us to maintain a healthy lifestyle. One way to enhance our brain function is by taking supplements that are good for the brain. There are different types of supplements that can improve brain health, and here are some of the best ones we have curated for you:

1. Nootropic Brain & Focus Formula combines a number of powerful amino acids such as Dimethylaminoethanol (DMAE Bitartrate), L-Glutamine, L-Tyrosine, and GABA, which enhance neuroactivity with plant extracts such as Bacopa that alter neurochemistry to improve focus, learning, and intelligence.



2. Ashwagandha: Ashwagandha, also known as Indian ginseng, is a powerful herb that has been used for centuries in traditional Ayurvedic medicine. One of the most well-known benefits of ashwagandha is its ability to boost brain function. Studies have shown that ashwagandha can improve memory, and cognitive function, and even help reduce symptoms of anxiety and depression. Ashwagandha contains compounds called withanolides, which are believed to be responsible for its cognitive-enhancing effects. These compounds work by reducing oxidative stress and inflammation in the brain, which can damage brain cells and impair cognitive function. Additionally, ashwagandha has been shown to increase the production of acetylcholine, a neurotransmitter that is important for learning and memory.



3. Vitamin B12: This vitamin is crucial for maintaining healthy nerve function and the formation of red blood cells. The brain requires adequate amounts of Vitamin B12 to function optimally. The vitamin helps to maintain the myelin sheath, which is the protective covering of nerve fibers. This covering helps to transmit nerve signals efficiently and quickly throughout the body. A deficiency of Vitamin B12 can lead to cognitive impairment, memory loss, and other neurological symptoms. It has also been linked to an increased risk of depression and other mood disorders.



4. Mushroom Extract Complex: Certain types of mushrooms, such as Lion's Mane and Reishi, contain compounds that have neuroprotective and neurodegenerative properties. These compounds have been shown to stimulate the production of nerve growth factors, which can help to repair damaged neurons and promote the growth of new ones. In the case of brain injuries, mushroom extract capsules may be particularly helpful in reducing inflammation and promoting healing. Traumatic brain injuries can cause swelling and inflammation in the brain, which can lead to further damage and impair function. The anti-inflammatory properties of mushroom extracts may help to reduce this inflammation and promote healing, potentially leading to better outcomes for those with brain injuries. For individuals with degenerative brain conditions, such as Alzheimer's or Parkinson's disease, mushroom extract capsules may offer some hope for slowing the progression of these conditions. The neuroprotective properties of these compounds may help to protect neurons from damage and prevent the accumulation of harmful proteins that are associated with these conditions. Additionally, some studies have suggested that mushroom extracts may help to improve cognitive function and memory in individuals with degenerative brain conditions.



5. Resveratrol, a natural compound found in various fruits, nuts, and red wine, has been known for its potential health benefits. Resveratrol can also play a significant role in maintaining brain health and preventing cognitive decline. Resveratrol is a potent antioxidant that helps to protect the brain from oxidative stress, which is responsible for damaging brain cells and contributing to the development of neurodegenerative diseases such as Alzheimer's and Parkinson's disease. Resveratrol also has anti-inflammatory properties that can help reduce inflammation in the brain, which has been found to be a significant contributor to cognitive impairment. Resveratrol has also been shown to increase the levels of BDNF in the brain, which can help to improve memory and learning ability.



6. 5-HTP, also known as 5-Hydroxytryptophan, is a naturally occurring amino acid that is derived from the seeds of the Griffonia simplicifolia plant. It is a precursor to serotonin, a neurotransmitter that plays a crucial role in regulating mood, appetite, and sleep. As a result, 5-HTP has been studied as a potential supplement for improving brain function. One of the most significant benefits of 5-HTP for the brain is its ability to increase serotonin levels. Serotonin is an essential neurotransmitter that is responsible for regulating mood, anxiety, and depression. 5-HTP may also be beneficial for sleep. Serotonin is involved in the regulation of sleep, and low levels of serotonin have been linked to insomnia and other sleep disorders.



II. ESSENTIAL OILS:

Essential oils are widely used for their therapeutic properties. They are known to have a positive impact on physical health, but their benefits extend to mental health as well. Many essential oils are considered good for the brain due to their ability to promote relaxation, reduce stress, and improve cognitive function.



1. Frankincense: Frankincense essential oil is known to reduce inflammation, which can impact brain health. It has been used for centuries to enhance spiritual practices and promote mental clarity.



2. Peppermint: It can help improve alertness, memory, and concentration, making it an excellent choice for students or anyone who needs to stay focused.



3. Lavender: One of the most well-known essential oils for brain health is lavender. This oil has a calming effect that can reduce anxiety and promote better sleep, which is essential for a healthy brain.



4. Chamomile oil: Chamomile oil has a calming effect that can help to reduce stress and anxiety. It is also known to improve sleep quality.



5. Rosemary: Rosemary essential oil is also beneficial for the brain. It has been shown to improve cognitive performance and memory retrieval, making it a great choice for those who want to enhance their mental clarity.



III. SEEDS

The brain is one of the most important organs in our body, responsible for controlling every aspect of our daily life. To keep our brain functioning at its best, it is important to eat a healthy diet that includes foods that are good for the brain. Seeds are a great source of nutrients that are essential for brain health. Here are 5 seeds that are good for the brain:

1. Black Chia Seeds - These tiny seeds are packed with omega-3 fatty acids, which help to improve cognitive function and reduce inflammation in the brain.



2. Flax Seeds - Rich in alpha-linolenic acid (ALA), flax seeds help to improve memory and brain function.



3. Pumpkin Seeds - These seeds are a great source of zinc, which is essential for brain function and the formation of new brain cells.



4. Sunflower Seeds - High in vitamin E, sunflower seeds help to protect the brain from oxidative stress and improve cognitive function.



5. Sesame Seeds - These seeds are rich in antioxidants, which help to protect the brain from age-related damage and improve memory.



Incorporating these seeds into your diet can help to keep your brain healthy and functioning at its best. Whether you sprinkle them on your salad, add them to your smoothie, or simply snack on them throughout the day, these seeds are a great addition to any diet.

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IV. HERBS GOOD FOR THE BRAIN

There are a variety of herbs that have been used for centuries to enhance brain function and improve overall cognitive health. Here are 5 of the best herbs that are good for the brain:



1. Moringa / Bacopa Monnieri - This herb has been used in Ayurvedic medicine for centuries to enhance memory and reduce stress.



2. Ashwagandha - This herb is known for its ability to reduce stress and improve overall cognitive function.





4. Passion Flower- Passion flower is known for its calming effects, which can reduce anxiety and stress. It contains a variety of compounds that have a sedative effect on the central nervous system, including flavonoids, alkaloids, and glycosides. These compounds work together to increase levels of GABA, a neurotransmitter that helps to calm the brain and reduce anxiety.



5. Rhodiola Rosea - This herb has been used for centuries to reduce stress and improve cognitive function.



Overall, these 5 herbs are some of the best for improving brain function and cognitive health. Incorporating them into your diet or taking supplements can provide a natural way to boost your brain power and overall well-being.

V. BRACES AND DEVICES YOU ARE GOING TO NEED FOR YOUR REHABILITATION:

1. Soft Hand Functional Rehabilitation Training Robot: Based on the combination of flexible robotics and neuroscience and with flexible pneumatic bionic muscles as the power source, the product aims to help users re-learn through exercise, improve hand mobility and accelerate the recovery process of hand function from the three levels of nerves, brain and muscles.

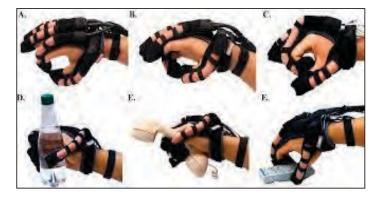


Robotics is a field of engineering that can contribute to solving this problem. This field has been extensively developed and is being applied in a great diversity of scenarios and human fields of action, as has been the case in the field of rehabilitation.

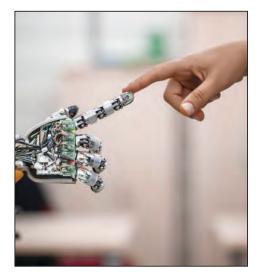


In the last decade, automated devices used for neuro-rehabilitation have been altered in order to improve limb function in people who have undergone traumatic injuries or have congenital or neurological disorders.

The human hands are very complex and versatile. Researche shows that the relationship between the hand function and the ability to perform ADL is stronger than the other limbs. The deficit in hand function would seriously impact the quality of patients' life, which means more demand is needed on the hand motor recovery. However, although most patients get reasonable motor recovery of the proximal upper extremity according to relevant research findings, recovery of hand functions has been limited due to low effectivity. There are two main reasons for challenges facing the recovery of the hand. First, in movement, the hand has more than 20 degrees of freedom (DOF) which makes it flexible, thus being difficult for therapists or training devices to meet the needs of satiety and varied movements. Second, in function, the area of cortex in correspondence with the hand is much larger than the other motor cortex, which means a considerable amount of flexibility in generating a variety of hand postures and in the control of the individual joints of the hand.



The benefit of this proposal is to use the results to prove that medical therapies involving repetitive movement allow the rapid establishment of affected neural connections. This system allows you to automate and optimize therapies, making them more intensive and decreasing the labor required of therapists in hand function training.



THE ROBOTIC

Robotics has been defined as the application of devices with electronic or computerized systems designed to perform human functions. A therapeutic robot is a system that detects the user's movements, uses this information to adjust parameters, and provides visual and sensory feedback to the patient. In itself, it has been reported that they are non-invasive devices, easy to control, with little risk for the patient, and with good effectiveness for treatment.



Robotics is one more tool in rehabilitation programs that allows increasing the intensity and quality of therapy. Although its development is advancing by giant steps and the results are very favorable, the success of the therapy requires clinical knowledge to identify which technology should be applied to each patient at each moment and how to make use of robotics to provide therapy based on the principles of motor learning, biomechanics and neuroplasticity.

Robotic rehabilitation devices, along with conventional therapy, provide a tremendous amount of benefits to clinics and patients, and are a solution for today to meet the challenges of tomorrow.



HAND FUNCTIONAL REHABILITATION ROBOT

The hand rehabilitation device designed to help with hand dysfunction caused by stroke, hemiplegia, cerebral hemorrhage, cerebral infarction, peripheral nerve injury of hand, orthopedic surgery, spinal cord injury, hand burn, children cerebral palsy, etc. Low self-esteem and high levels of frustration are common among people with hand motor-impaired disabilities due to their inability to perform everyday tasks. Something as simple as picking up a phone, tying a shoelace or fastening a blouse can be overwhelming and adversely affect the quality of life we all deserve.

The artificial intelligent hand rehabilitation robot combines flexible robotics technology and neuroscience. It uses flexible pneumatic bionic muscles as the power source. By repeatedly driving the bionic muscles on the gloves to expand and contract, the gloves can pull the fingers to drive the joints of the affected fingers. Helps you to do flexion and extension exercises.



How does this robot work?

It is associated with the basic mechanism of improving motor function after stroke, or any kind of brain insufficiency resulting in neuroplasticity. It is a term that refers to the brain's ability to modify the physical structure and function throughout life and in response to experience and training. One important goal of rehabilitation of stroke patients is the effective use of neuroplasticity for functional recovery. Therefore, high-intensity practice and repetitive training are required to help the patient's brain to re-learn the ability to move, making stroke rehabilitation a labor-intensive process.

Before we dive into the details of neurons and the neural pathways you should know some basic anatomy and physiology of the hand, to understand the mechanism of action of this device better.

Glove Robot Training your Hand

One of the primary goals of robot-based hand motor therapy is consistent improved steadiness and hand function, traits often challenging to attain when the muscles have yet to heal. This is especially difficult to maintain as you become more tired toward the end of the therapy session. Robotic devices gently support and guide movements of the hand to increase exercise consistency.



It is combined with flexible robot technology and neuroscience, it can help patients master fingers flexion and extension, reduce hand

muscle tension, relieve edema and stiffness, promote rehabilitation of brain nerve injury through exercise, improve hand activity and accelerate the rehabilitation of hand function.

How to use Soft Hand Glove

Please charge the device for at least 30 minutes if using it for the first time. Insert the power glove plug into the power socket on the side of the machine. Press and hold the power button for 2 seconds. Wait for the glove to fully extend and then put on the glove. Once you put on the glove, pull the whole glove towards the wrist so that the fingertips go as far as possible into the glove. Then tighten on the wrist and fasten the velcro of lateral strap without creating any discomfort.

Passive Training

Press on the menu button to select passive mode, select the extension and flexion index. To train for the first time. The recommended extension index is set to 8 and the flexion index set to 3. Press the start button to start training.



Bilateral Mirror Training

To perform the mirror training, insert the data glove plug into the data pocket and the power glove plug into the power socket on the side of the host. Wear the data glove on your healthy hand and power glove on the affected hand. Select mirror mode and press the start button. During the training the affected hand follows the movement of the healthy hand and does flexion or extension simultaneously. If both hands are unable to do the movements it is recommended to start with passive training.

The healthy side drives the affected hand, simultaneous movement of hands, activating mirror neurons, the motor nerve pathway of the normal healthy hand was copied to the affected hand.



1. ADL Training: It also helps you to trains your brain to do the activities of daily living like grasping a glass, gripping or squeezing with your affected hand. Just like bilateral mirror training you need to do action like gripping something or grasping a glass with your good hand and the affected hand will follow. You might need to train your affected hand quite some time to perfect a particular move-

ment. However it will come with practice.



2. Wrist Brace: Brain injury can cause a variety of symptoms, including difficulty with balance and coordination, tremors, and muscle weakness. These symptoms can make it difficult for patients to perform everyday activities, such as writing or typing. Wrist braces can help to improve these symptoms by providing support to the wrist and stabilizing the hand. By stabilizing the hand, wrist braces can help to improve fine motor skills, which can be particularly important for patients who have suffered a traumatic brain injury. Wrist braces are commonly used to provide support, stability, and protection to the wrist joint. They are designed to help relieve pain, reduce inflammation, and prevent further injury to the wrist. This wrist brace is comfortable, lightweight, and perfect for multi-purpose use. You can wear them throughout the night, at work, traveling, working out, and more.



3. Shoulder Brace: One of the main benefits of using a shoulder brace for brain injury is that it can help to reduce the risk of further damage to the brain. By providing support to the neck and shoulder area, the brace can help to reduce the pressure on the brain, which can prevent further damage from occurring. Additionally, the use of a shoulder brace can help to improve the patient's overall posture and reduce the risk of strain or injury to the neck and shoulder area.

Our shoulder brace provides stronger, more reliable support, speeds up the recovery process, to protect the shoulder from injuries when playing basketball, volleyball, and other sports. Reduce muscle strain, from slight discomfort to more serious conditions like Dislocated AC Joint, Bursitis, Rotator Cuff, Labrum Tear, Frozen Shoulder Pain, Sprain, Soreness, and Tendonitis. Our shoulder sleeve will improve your condition and accelerate the healing process.



IV. Foot Spa: The feet are often considered the "second heart" of the body because they contain many nerve endings and blood vessels. By soaking the feet in warm water and adding essential oils or salts, the body can relax and release tension. This relaxation can have a positive effect on the brain, as stress and anxiety can impair cognitive function. Additionally, the act of soaking the feet can increase circulation, which can be beneficial for brain health. Improved circulation can help supply the brain with the necessary nutrients and oxygen it needs to function optimally. This foot spa also offers massage functions, which can further promote relaxation and reduce stress.



VI. FOODS THAT YOU NEED TO INCLUDE IN YOUR DIET

Let's discover the delicious foods that can boost your brain power and enhance your cognitive abilities! Incorporating these brain-boosting foods into your diet is a smart move towards a healthier and happier you. So, let's dive into these amazing foods that can help you maintain a sharp mind and improve your overall brain function!

1. Dark Chocolate: Studies found that flavonoids in dark chocolate can enhance the production of nitric oxide, which helps to increase blood flow to the brain and reduce inflammation. Dark chocolate improves visual information processing and working memory performance. This is due to the presence of caffeine and theobromine, which are natural stimulants found in dark chocolate.



2. Nuts: They are rich in vitamins, minerals, and healthy fats. However, recent studies have shown that nuts can also play a significant role in preventing brain injury. Nuts are high in antioxidants, which are known to protect the brain from damage caused by free radicals. Nuts are also a great source of omega-3 fatty acids, which are essential for brain health. Omega-3 fatty acids can help protect the brain from inflammation and promote healthy brain function.



3. Chaga & Lion's Mane Mushroom Coffee:

Chaga is a mushroom that grows primarily on birch trees and is rich in antioxidants and anti-inflammatory compounds that have been shown to help protect the brain from damage caused by oxidative stress and inflammation. Lion's Mane mushroom, on the other hand, contains compounds that have been shown to promote the growth and regeneration of nerve cells in the brain, which can be particu-

larly helpful in cases of brain injury where the brain has suffered damage or trauma. When combined with coffee, Chaga and Lion's Mane mushrooms can create a potent brain-boosting drink that can help improve cognitive function and promote overall brain health. For individuals who have suffered from a brain injury, drinking Chaga and Lion's Mane mushroom coffee may help to speed up the recovery process by promoting the growth of new nerve cells and protecting existing cells from further damage.



4. Linden Honey: Brain injuries can be caused by a variety of factors such as accidents, strokes, or even infections. These injuries can lead to a range of symptoms such as memory loss, headaches, and difficulty concentrating. However, studies have shown that linden honey can help to reduce the damage caused by these injuries. The high antioxidant content of linden honey helps to protect brain cells from oxidative stress, which can cause cell damage and death. Additionally, the anti-inflammatory properties of this honey can help to reduce brain swelling and inflammation, which can further reduce the damage caused by injury. Linden honey also contains a compound called quercetin, which has been shown to have neuroprotective effects.



5. Apricot: Apricots are a good source of essential nutrients for brain health. These foods are rich in vitamins and minerals, such as vitamin C, potassium, and iron, all of which are important for brain function. Vitamin C, for example, helps to reduce inflammation and protect the brain from oxidative damage. Potassium is essential for proper nerve function, while iron is necessary for the production of hemoglobin, which carries oxygen to the brain.



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VII. HERBAL TEAS:

Herbal teas have been used for centuries to promote health and wellness. For patients with brain injury or brain conditions, herbal teas can be an effective way to alleviate symptoms and improve overall well-being. Here are 5 herbal teas that can help patients with brain injury or brain conditions:



1. Ginkgo Biloba Tea: Ginkgo Biloba is a natural remedy that can improve blood flow to the brain and help to reduce inflammation.



2. Peppermint Tea: Peppermint tea is known for its calming properties, which can help to reduce stress and anxiety.



3. Cat's Claw tea: It has been found to contain antioxidants that can help protect the brain cells from damage caused by free radicals. The tea also has anti-inflammatory properties that can reduce the inflammation that can cause further damage to the brain cells. Furthermore, Cat's Claw tea has been found to have a positive effect on brain function. It can improve memory and cognitive function, which is particularly beneficial for those who have suffered from brain injury or have a brain condition. The tea contains compounds that can increase blood flow to the brain, which can also improve brain function.



4. Lavender Tea: Lavender tea has a calming effect that can help to reduce stress and anxiety.



5. Mullein tea: It contains several compounds such as saponins, flavonoids, and mucilage that have anti-inflammatory and antioxidant properties. These properties make mullein tea a potential therapeutic agent for patients with brain injury or brain conditions.



In conclusion, herbal teas can be a powerful tool for patients with brain injury or brain conditions. They can help to alleviate symptoms, improve overall well-being, and promote relaxation and sleep. By incorporating these herbal teas into their daily routine, patients can experience the many benefits of natural remedies and improve their quality of life.

VIII. JUICES

Fruit juices are a delicious and healthy way to stay hydrated and energized. But did you know that some fruit juices are particularly good for brain health? Here are 5 fruit juices that can help to boost your cognitive function and protect your brain from damage.

1. Prune juice: is rich in antioxidants, vitamins, and minerals, which are essential for maintaining optimal brain function. The antioxidants in prune juice protect the brain cells from oxidative stress and damage caused by free radicals. This, in turn, reduces the risk of age-related cognitive decline, memory loss, and dementia. Moreover, prune juice is high in potassium, a mineral that helps to maintain a healthy balance of electrolytes in the brain.



2. Pomegranate juice: Pomegranates are rich in polyphenols and flavonoids, which can help to protect the brain from damage and improve blood flow.



3. Cranberry juice: Cranberries are high in antioxidants and can help to improve cognitive function and memory.



4. Apple juice: Apples are high in antioxidants and can help to protect the brain from damage and improve cognitive function.



5. Cherry juice: Cherries are high in antioxidants and can help to improve memory and cognitive function.



In conclusion, these 5 fruit juices are not only delicious, but they can also help to boost your brain health. By incorporating these juices into your diet, you can protect your brain from damage, improve cognitive function, and reduce the risk of cognitive decline. So next time you're in the mood for a refreshing drink, reach for one of these brain-boosting fruit juices!

IX. SOME HERBAL RECIPES:

These recipes will help you to recover faster.

1. Mix juice recipe by. Dr. Sous:

Ingredients

- 1 Carrot
- 1 Lemon
- 1 Beetroot
- 1 cup beetroot green leaf
- 2 cups of water
- 5-6 mint leaves
- ¹/₂ Cup of pomegranate seeds
- 1 Tsp Himalayan salt



That Juice contains 8 mixed ingredients around 857.99g and Calories 390 % daily value, Fat 4.5g(6%), Carbohydrate88g, Fibre 25g (90%), Sugar 49g, Protein 8g, Sodium112%, Potassim43%, calcium 200g (15%) and Iron 183%.

2. Beef Bone marrow soup

Ingredients

- Beef bones
- 1 Garlic
- 1 Onion
- 2 Teaspoons of turmeric
- 4 Teaspoons sesame seeds
- 4 Teaspoons red cress seeds
- 2 Parsley
- 1 Tsp black paper
- 1 Lemon
- 1 Tsp Sea salt
- Olive oil

How to make

Chopped onion and garlic. Put the pressure cooker on the stove, add 1 tsp olive oil. Add chopped onion and garlic to the cooker and cook till turn brown, add salt (according to taste) and 2 teaspoons of turmeric. Whenever it is a little brown add beef bones and half liter water. Cook for 2hrs on slow heat.



On the side, put lemon juice in a bowl, add black paper, hot pepper, and cumin powder, and mix well. Add everything together in the end and cover it for 5 minutes. Have it warm or hot. The best time to eat is 3 or 4 hours before going to bed.



Nutrition facts

That Soup contains 11 ingredients around 2687g and Calories of 4010, Fat 203g (271%), Saturated fat 77g, Cholesterol 550mg (183%), Sodium 342%, Carbohydrate 302g (101%), Fiber 46g (163%), Protein 262g, Vitamin D 1.5mcg (6%), calcium 143%, Iron 64.5mg (357%), Potassium 7950mg (169%).

3. Massage with Essential Oils blends:

Recipe 1. (Lavender, Spearmint, and Eucalyptus)

- 2 teaspoons of coconut oil
- 1 2 drops of Lavender
- 1-2 drops of Spearmint
- 1-2 drops of Eucalyptus essential oils

Looking for natural remedies to relieve your tension headache? Try this amazing blend of Lavender, Spearmint, and Eucalyptus essential oils mixed with just 2 teaspoons of coconut oil. The calming and soothing properties of Lavender combined with the refreshing and invigorating aroma of Spearmint and Eucalyptus provide an unbeatable combination to help alleviate tension headaches. Simply massage the blend onto your temples and feel the tension melt away. Say goodbye to headaches and hello to a rejuvenated mind and body with this incredible Essential Oils blend.

4. Body Soak

Recipe 1

- 4 tablespoons jojoba oil
- 4 tablespoons milk
- 10 drops of Chamomile essential oil

• 10 drops of Rosemary essential oil



Indulge in a luxurious and rejuvenating body soak with our premium blend of natural ingredients! Our recipe includes 4 tablespoons of nourishing jojoba oil, 4 tablespoons of soothing milk, and a heavenly aroma of 10 drops each of Chamomile and Rosemary essential oils. This indulgent concoction is perfect for a relaxing and refreshing self-care routine. Say goodbye to stress and exhaustion and say hello to a revitalized and pampered you!

5. Body Soak

Recipe 2

- 1 2 drops peppermint oil
- 1-2 Thyme oil
- 1-2 drops of Lemongrass
- 1-2 drops Jasmine
- 1-2 drops Rose oil (up to 8 drops total)



Indulge in a luxurious bath experience with these exquisite essential oils! Add 1-2 drops of refreshing peppermint oil, aromatic thyme oil, zesty lemongrass, fragrant jasmine, and delicate rose oil (up to 8 drops total) to your body soak. Let the soothing scents envelop you, easing away tension and leaving you feeling rejuvenated and refreshed. Transform your bath into a spa-like oasis with this heavenly blend of essential oils.

6. Foot Soak

Recipe 1

- 6-8 drops peppermint oil
- 6-8 drops of lavender oil

• 2 tablespoons of Epsom Salt



Indulge in a luxurious foot soak with just a few simple ingredients! Add 6-8 drops of refreshing peppermint oil and calming lavender oil to 2 tablespoons of soothing Epsom salt for the ultimate relaxation experience. Treat your feet to a spa-like treatment that will leave them feeling refreshed and rejuvenated.

7. Foot Soak

Recipe 2

- 10 drops of Rosemary oil
- 5 drops of Chamomile oil
- 5 drops of Lavender oil



Pamper your feet with this luxurious foot soak recipe! Just mix together 10 drops of fragrant rosemary oil, 5 drops of soothing chamomile oil, and 5 drops of calming lavender oil. Your tired and achy feet will thank you for this indulgent treat!

8. Body Scrub

Recipe 1

- ¾ cup of Sugar
- 10 drops Lavender Essential Oil
- 10 drops Frankincense Essential Oil
- 2 tablespoons of sweet Almond Oil



Indulge in the ultimate pampering experience with this heavenly body scrub recipe. Sweeten up your skin with 3/4 cup of sugar, then add in 10 drops of luxurious lavender essential oil and 10 drops of tantalizing frankincense essential oil. But that's not all - add in 2 tablespoons of sweet almond oil to leave your skin feeling silky smooth and oh-so-soft. Get ready to feel like royalty with this divine body scrub recipe.

9. Body Scrub

Recipe 2

- 1 cup sugar granulated sugar
- 3/4 cup oil olive oil
- 1-2 drops of essential oil lavender
- 1-2 drops of chamomile
- 1-2 peppermint



Indulge in a luxurious pampering session with this heavenly body scrub recipe! With just a few simple ingredients, you can create a rejuvenating and aromatic blend that will leave your skin feeling silky smooth and smelling divine. Gather 1 cup of fine granulated sugar, 3/4 cup of pure olive oil, and a few drops of essential oils for the ultimate sensory experience. Add a drop or two of calming lavender oil, soothing chamomile oil, and invigorating peppermint oil to create a harmonious blend that will awaken your senses and soothe your soul. Not only will this heavenly concoction exfoliate your skin, but it will also moisturize it, leaving you with a radiant glow. So, go ahead and indulge in this luxurious treat. Your body will thank you for it!

10. Inhalation with Essential Oils-

- 2 drops eucalyptus oil
- 2 drops tea tree oil
- 2 drops rosemary oil
- 1 drop clove oil
- 1 drop frankincense oil





Essential oils are becoming increasingly popular among people looking for alternative ways to treat various health conditions. The combination of eucalyptus oil, tea tree oil, rosemary oil, clove oil, and frankincense oil has been known to provide numerous benefits when inhaled. Inhalation with essential oils can be done through various methods, including diffusing, steaming, or simply inhaling directly from the bottle. Eucalyptus oil is known for its anti-inflammatory and decongestant properties. It is commonly used to relieve respiratory conditions such as asthma, bronchitis, and sinusitis. Tea tree oil is another popular oil that is known for its antibacterial and antifungal properties. It is often used to treat acne, dandruff, and other skin conditions. Rosemary oil is a powerful antioxidant that helps to improve circulation, reduce stress, and boost the immune system. Clove oil is known for its analgesic properties, making it an excellent natural pain reliever. Finally, frankincense oil is often used for its anti-inflammatory properties and is commonly used to treat conditions such as arthritis and asthma. When these oils are combined and inhaled, they have a synergistic effect that can help to improve respiratory function, boost the immune system, and reduce inflammation and pain. To inhale these oils, simply add two drops of each oil to a diffuser or bowl of steaming water. Alternatively, you can add the oils to a cotton ball and inhale directly from the bottle. Pregnant women, children, and people with certain medical conditions should avoid using essential oils. Overall, inhalation with essential oils is a natural and effective way to improve health and well-being.

X. BODY POSITIONING, BED MOBILITY & TRANSFER

During the first month of this protocol you need to take care of the patient with how to position him/her on the bed and how to transfer them from one surface to another.

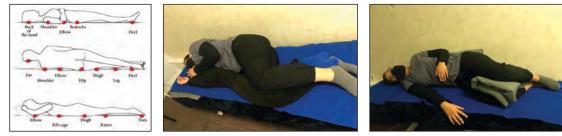
Proper positioning both in bed and in a wheelchair is essential. Appropriate positioning will assist in preventing skin breakdown and contractures, improve pulmonary hygiene and circulation, and may modify muscle tone. If joints stay in the same position for a very long time, e.g., always bent or extended, contractures may occur. Different positions can prevent contractures. Remaining in one position for a long time increases the tension on the body (spasticity, spasms). Varying positions support the regulation of body tension.

- Bed elevation: The upper end of bed should be minimally elevated or done only for a short period of time. When elevating the upper end of the bed, the patient slides down this causes shear forces that affect the skin of the buttocks. Being half-seated places great strain on the buttocks, which means increased risk of pressure sores.
- Areas of particular risk are those covering the bones.

When positioning a patient in bed, supportive devices such as pillows, rolls, and blankets, along with repositioning, can aid in providing comfort and safety. There are various positions for patients in bed, which may be determined by their condition, preference, or treatment which are as follows,

Stress-relief positions

1. Lateral position: This position aims to prevent risk on vulnerable areas and promotes relaxation. Let the person be relaxed on one side, supporting the upper part of the body with a pillow. This will reduce the stress on shoulders.



2. Prone position: Check the vulnerable skin areas like hips, knees, and toes before placing a person in this position. Also, monitor breathing of a person while complete paralysis when placed in prone. This position eases the strain on vulnerable areas, promotes relaxation and avoids contractures.



3. Extended position: In this position the upper part of the body is opposite the bent knees. It helps regulate body tension.



4. Frog leg or crossed leg position: The legs are supported on the outer side to prevent the tension. The buttocks are elevated which reduces the risk of pressure sores. This position also helps in reducing spasms and spasticity



5. When the person is lying down, the head should be kept in a neutral position with hips and knees slightly bent. The foot should also be in a neutral position. Special boots are used to help keep the foot in proper alignment. If the person is unable to move by himself, ensure repositioning in bed every 2 hours. This will help prevent skin breakdown and pressure sores.

6. Semi Side-lying: This position relieves pressure from bony landmarks which avoids pressure directly on the greater trochanter (hip). Precaution should be taken that a pillow or roll must be used between legs and knees. Consider placing top leg over bottom leg instead of on top of bottom leg if it does not increase pressure on the hip.



7. Supine: The upper end of the bed is elevated to 30 degrees. Make sure the respiratory functions are working optimal. A pillow can be kept between the knees to prevent the body from sliding down. Precaution should be taken to not elevate the upper bed end beyond

30 degrees.



8. For those people who are unable to move by themselves if they are sitting a reclining or tilt-in-space wheelchair is preferred. This will help support the hips and head in proper alignment.



9. You can also support the foot with wrap bandage in slight planar-flexed position.



XI. BED MOBILITY AND TRANSFERS

Bed mobility and transfers are extremely important functional activities that individuals with brain injury need for independent mobility.

What is bed mobility?

Bed mobility refers to activities such as shifting in bed, rolling (turning to side-lying), lying to sitting, and sitting to lying down. It also includes shuffling to sit on the edge of the bed when preparing to stand or transfer.

Why is bed mobility important?

People who have limited mobility from injury, weakness, or disability may have difficulty moving in and out of bed. Also, there is an increased risk of injury for the caregiver when assisting patients who have limited mobility. For this good body mechanics and certain positions should be practiced.

Things to keep in mind

- The area surrounding should be clear before shifting or moving.
- If the person has lines attached to the chest or tubes, make sure it does not interfere with the activity.
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- The side from which the person will get up is decided based on the strength of the patient.
- If the moving is assisted by a caregiver or another person, make sure the instructions given to the patient are clear.
- Avoid forcing or pulling the limb of the patient while shifting them.
- For caregivers and assisting persons, while lifting the patient always remember to bend the knees and keep the back straight.

Steps for moving the patient up in bed:

1. If the patient is unable to move this can be done with the help of two-person assistance.

- 2. Before starting any activity, inform the process what movements will take place and how the patient can participate in it.
- 3. Raise the bed to waist level and ensure that brakes are applied. Caregivers must stand on each side of the bed.

4. Lay the patient on the back. Place a pillow under the head and at the headrest of the bed. This will prevent the head from accidently hitting the head to the bed.

5. Stand between shoulders and hips of the patient. The feet of the caregiver must be wide apart. While moving the weight will be shifted from back foot to front foot.



6. Fanfold the bedsheet towards the patient with palm facing up. This provides a strong grip while shifting the patient.



7. Ask the patient to tilt head toward chest, fold arms across chest, and bend knees to assist with the movement. Let the patient know when the move will happen.



8. Tighten your gluteal and abdominal muscles, bend your knees, and keep back straight and neutral.

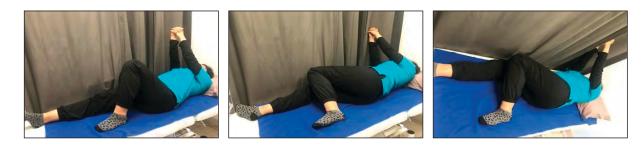
9. On the count of three by the lead person, gently slide (not lift) the patient up the bed, shifting your weight from the back foot to the front, keeping back straight with knees slightly bent.

10. Replace pillow under head, position patient in bed, and cover with sheets.

Rolling: Used to dress and change position at night. It is also a prerequisite for getting from lying to sitting. For rolling to be effective, the patient is required to learn to move the head, neck, upper limb, lower limb, and trunk in a balanced manner. Initially, rolling should be taught to a patient on mat but afterwards the patient gets confidence to perform it over bed.

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- Patient lies in supine position.
- Patient flexes his head, neck, and right shoulder.
- Right arm is moved towards the left side to create momentum.
- The momentum of the arm is transferred to the trunk and lower limb.
- The lower half of the body will be rolled to a prone position. Flexion of hip and knee will facilitate the roll.
- Patient takes his right shoulder at the back side by putting weight on the left forearm and thus, weight is distributed on both upper limbs.
- Patient lies prone.



Assisting the patient to sitting position:

The leg closest to the edge of the bed can be straight or bent depending on which is more comfortable for the patient. Have the patient bend the opposite hip and knee. For example, you should bend the patient's right hip and knee if getting the patient out on the left side of the bed.



Place your hands behind the patient's shoulder and hip or thigh on the far side. Have the patient reach with their opposite arm across their body, toward the side of the bed. Important tip: the patient should always roll toward you, not away from you.



Assist the patient in rolling toward you and have them use their opposite arm to reach across their body into a side lying position.



The patient should place their arms in a position that is comfortable for them. However, having the arms positioned as pictured below, allows the patient to use their arms and upper body strength to help push up to a seated position. The patient should now be lying on

their side with hips and knees bent.



Have the patient move their legs off the edge of the bed. If needed, you can assist the patient to move their legs from behind their knees.



The patient can use both arms to push up to help achieve a sitting position. If needed, assist the patient to achieve a sitting position by placing one arm behind their shoulder. The other arm could be placed behind the other shoulder, supporting their trunk (as pictured) or on the patient's pelvis. Important tip: If assisting the patient, perform the activity in a continuous smooth motion. Always take your time, do not rush.



To help the patient move from a sitting position on the bed to a standing position first assist the patient to scoot to the edge of the bed. With you standing in front of the seated patient, the patient leans to one side while you support the shoulder on that same side. With your other arm help the patient shift the hip forward. This process would be alternately repeated on the opposite side.

Make sure the patient's feet are flat on the floor and he/she sits for a few seconds (or minutes, as needed) before leaning forward to be assisted to a standing position.



Assisting the patient from sitting to lying in the bed:

- Have the patient sit on the bed (closer to the head of the bed) and away from the edge which allows for less repositioning once in bed.
- Assist the patient as needed to get into the side lying position.
- Have the patient bend both knees and roll onto their back. Assist patient as needed.

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• The patient can scoot in bed to adjust to a comfortable position. Assist patient as needed.

Supine to sit independently:

- Turn on side with interlocking your fingers.
- Move your legs outside.
- Push your elbow and move up.



Sitting unsupported:

The seated position is less stable when reaching or using the hands to grasp, manipulate and lift objects. Reaching forwards or sideways displaces the centre of mass, causing a tendency to fall. However, patients with brain injury have limited proprioception and are unable to use their body parts to maintain an upright position. They need to adopt alternate strategies.

- One strategy is to use upper limb muscles to help stabilize the trunk in an upright position.
- Patients who have profound lower limb weakness can use compensatory strategies to maintain their posture. To reach sideways with one arm they can abduct the contralateral arm. Similarly, to reach forwards with one arm they reach backwards behind the body with the other arm while at the same time extending the neck.



Assisting sit to stand with one person assistance:

- The caregiver must face the patient. Legs can be supported by blocking with your knees if necessary.
- Ensure that the patient's feet are supported on the floor.
- Place your hands around the patient's waist or under the buttocks.
- Have the patient scoot their bottom to the edge of the bed/chair, if unable to do this independently you can assist him/her by "bum walking"
- Patient brings feet back (knee flexion and ankle dorsiflexion) to the chair, so they are underneath him/her when standing. Knees are positioned around 80-90 degrees.
- Patient leans forward (trunk/hip flexion) in preparation for standing. It is imperative that they lean their 'nose over their toes.' To bring their center of mass forward. He/she can hold onto a piece of equipment, the therapist's forearms, or hips.
- Encourage your patient to become independent. The patient is encouraged to "push-up" through his/her feet and knees.
- Assist the patient to straighten his/her knees and hips by providing a forward and upward pressure on their pelvis.
- The patient's knees can be blocked/supported if required
- Once up, ensure the patient is steady and able to maintain their safety independently before letting go.



Sit to stand independent:

- Take a chair with arm support.
- Interlock your fingers and shift the body weight forward.
- Lift your hips and keep shifting your weight forward in effort to straighten the knee.



Sit to stand with walker:

- Hold the walker close
- Shift your body forward
- Lift the hips and push your body weight forward



What are transfers?

Learning and practicing safe transfers is a vital part of rehabilitation for all individuals who suffer brain injury.

Pivot transfers:

Pivot transfers are useful for a person who is not able to walk safely between surfaces. "Pivot" indicates that the person bears at least some weight on one or both legs and spins to move their bottom from one surface to another. A pivot transfer can be performed in both squatted and full standing positions and can be completed with anywhere from minimal assistance to total assistance from a caregiver or helper. Assisting standing pivot with one person assistance:

- The caregiver must stand in a walk stance with knees slightly flexed and toes pointing toward the chair.
- Maintain the back erect, lean forward and place hands behind the patient's lower back/pelvis
- When necessary, block the patient's weaker leg by placing his/her feet on either side of the patient's feet and use your knees to support the patient's weaker leg.
- Let the patient sit on the edge of the bed with his/her feet on the floor, toes pointing away from the chair.
- When necessary, protect the weaker side of a patient (e.g., shoulder).
- The patient can place his/her hands on the transfer surface, or the assisting person's waist or forearms.
- Transfer first towards the patient's stronger side. Let the patient assist by full or partial weight bearing.
- While transferring, position (wheel) chair at a 30-degree angle to the side of the bed. If applicable, remove the footrest and armrest nearest to the patient.
- Patient places hands on the arm of chair and lowers down.





Assisting standing pivot with help of walker:

- Let the patient sit on the edge of the bed with his/her feet on the floor, toes pointing away from the chair.
- When necessary, protect the weaker side of a patient (e.g., shoulder).
- The patient can place his/her hands on the walker, stand with the help of the walker from the bed or chair.
- Turn the walker and pivot slowly towards the transferring surface. Let the patient assist by full or partial weight bearing.
- Sit slowly with proper balance.





Assisting standing pivot independently:

- Let the patient sit on the edge of the bed with his/her feet on the floor, toes pointing away from the chair.
- When necessary, protect the weaker side of a patient (e.g., shoulder).
- The patient can place his/her hands on the transfer surface.
- Let the patient transfer from the stronger side first towards. Let the patient assist by full or partial weight bearing.
- While transferring, position (wheel) chair at a 30-degree angle to the side of the bed. If applicable, remove the footrest and armrest nearest to the patient.
- Patient places hands on the arm of chair and lowers down.



Assisting the patient for sliding board transfer:

- Let the patient sit at the edge of bed and angled towards the chair.
- Armrest of the wheelchair is removed.
- Have the patient lean to the side and slide one end of the board under their hips/buttocks and the other end half-way covering the transfer surface (chair/bed).
- Adjust the two surfaces between the sliding board to be a similar height (if possible, position height of bed so patient is going downhill).
- Ensure the patient does not place his/her fingers under the ends of the board, because as they shift their bodyweight their fingers will get pinched underneath.
- Encourage the patient to use their arms to scoot along the board. You can assist at the hips/buttocks as needed to complete the transfer.
- Once the patient is settled in the chair, have them lean to the side again to remove the board.
- If using a wheelchair, ensure the brakes are on, and the armrest and footrest on the appropriate side are removed.

XII. FACIAL EXERCISES, FACIAL MASSAGE AND SWALLOWING TECHNIQUES

When individuals suffer from brain injury it usually also results in facial palsy and difficulty in swallowing. They may experience various sequelae that interfere with their facial function. Common sequelae are:

• Asymmetry

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- Muscle contracture
- Facial muscle weakness
- Synkinesis

Because the facial muscles provide little intrinsic information about posture and movement, it is difficult for patients to perform voluntary facial movements without some feedback. Activation of the facial muscles alone is not, however, sufficient to recover facial expressions. It has been proposed that because emotions generate specific facial muscle contractions to achieve reactionary expressions. From a practical perspective, it is useful to consider incorporating facial exercises that focus on emotions and expressions into a rehabilitation programme. For example, ask the patient to remember a time when she / he was very happy when practicing a smile to activate the positive effect marker associated with smiling.

Exercises:

- 1. Before you start your exercises consciously try to relax the unaffected side of your face.
- 2. Using your index or middle finger to assist the weaker side, gently lift the eyebrow.
- 3. Using your finger to assist the weaker side, gently close your eyelid to assist with eye closure.
- 4. Using one finger to assist the weaker side, gently pull your mouth into midline and then assist into a smile.
- 5. Slowly pucker your mouth then relax.
- 6. Slowly open eyes wide open and lift eyebrows.
- 7. Slowly close your eyes tightly and relax.

Passive movements:



Self exercises:

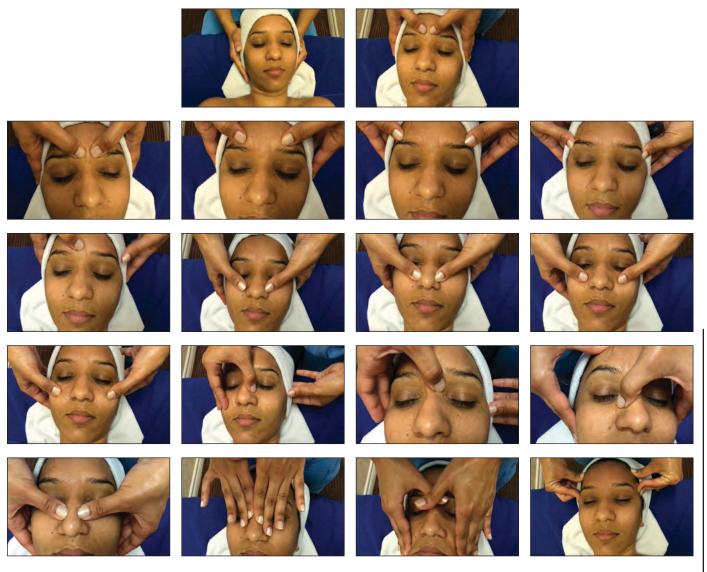


Massage for facial contractures: Usually when the muscles are not working, it starts getting tight and needs massage to release. Considerations and precautions to take in mind before applying massage are as follows:

- no deep, lengthening or dragging techniques to the flaccid side
- no extreme temperature with hydrotherapy
- concern with eye infection
- do not place client prone (pressure on flaccid muscles)
- do not work from midline toward flaccid side

Steps to apply facial massage are:

- Position supine, no prone gently support opposite side of head
- Local heat over muscle shortened (if no edema)
- Unaffected side first
- Effleurage, petrissage, muscle stripping, chest, posterior neck, and shoulders
- Manual Lymphatic Drainage if edema is present
- Unaffected facial muscles: pressure toward the lesion from lateral to midline of the face
- fingertip kneading, compressions, stroking, vibrations, short fascial spreading





Facial Acupressure points: The acupressure points located on the face have been used to help with anything from congestion and headaches to fevers and chills. Although research on the benefits of acupressure is limited, some research suggests it may help reduce physical pain as well as stress.

There are several acupressure points located on your face. Points on the front of your face include: **1. LI20:** LI20 is in the nasolabial groove, which is the groove where your nostril meets your face.



2. GV26: GV26 is located right in the center between your lips and your nose.



3. Yintang: Yintang is located between your eyebrows, which is the area otherwise known as your "third eye."



Acupressure points on the side of your face include:

1. Taiyang: Taiyang is in the tender depression of the temple.



2. SJ21: SJ21 is in the depression anterior to the supratragic notch, which is right above the tragus of the ear, closer to the face.



3. SJ17: SJ17 is located right behind the earlobe.



On the hand: LI4 can help with disorders of the face and relieve pain as well as chills and fevers. To find it, squeeze your thumb to the base of your index finger. You can locate it at the highest point of the bulge of the muscle and nearly level with the end of the crease.

Dysphagia:

It is the medical term for difficulty swallowing. It is more common in older people but may also be present in people with certain neurological conditions. Difficulty swallowing can lead to nutrition and hydration issues, choking, and aspiration pneumonia (an infection resulting from material from the mouth and stomach entering the lungs). People with dysphagia benefit from doing different swallowing exercises. Such condition-specific exercises can help to improve swallowing muscle strength and coordination, improving the symptoms of dysphagia.

Exercises to help dysphagia:

Those with dysphagia should first do exercises like the ones listed below under the care of a medical professional. They can guide the person step by step through the exercises and tell them if they're doing the exercises correctly. The exercises are,

Effortful Swallow: Gather the saliva in your mouth in the middle of your tongue. Keep your lips pressed together. Swallow all the saliva at once like you're swallowing a grape or a pill.

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Dynamic shaker: Lie on your back on a flat surface. Make sure your shoulders are against the surface and do not use a pillow or headrest. Keeping your shoulders on the surface, lift your chin as if you're trying to look at your feet. Lower your head back down to the surface. Repeat 30 times. Then rest for 2 minutes. Repeat as many times as indicated by a medical professional.

Jaw Thrust: Push your lower jaw as far forward as possible, placing your lower teeth in front of your upper teeth. Hold the position for time determined by your doctor or physical therapist. Repeat as many times as indicated by your doctor or physical therapist.

Masako maneuver: Stick your tongue out of your mouth. Bite down gently on your tongue to keep it in place. Swallow while holding your tongue between your teeth. Release your tongue. Then, repeat as many times as indicated by a medical professional.



Mendelsohn maneuver: Press the index, middle, and ring finger of one hand on your neck to locate your Adam's apple—the small bump or simply the skin on the front of your neck below the chin. Swallow once, noticing how the Adam's apple moves up and down when you swallow. Swallow again, but this time, squeeze your throat muscles to hold your Adam's apple at its highest point. Hold it for as long as indicated by your doctor, or if you can if you can't yet hold it for that long.



Supraglottic maneuver: Collect a bit of saliva in your mouth. Take a deep breath and hold it. Swallow while holding your breath. Immediately after swallowing, cough. Once you have this down with saliva, you can try with food or drink, at the direction of a medical professional.

Hyoid lift maneuver: Gather materials—a drinking straw, pieces of paper towel, and a cup. Place the straw in your mouth. Suck on the straw, picking up a piece of the paper with the suction that forms. Keep the suction strong enough to carry each piece of paper over to a cup. Stop sucking and let the paper fall into the cup. Repeat until all pieces of paper are in the cup.

Tongue strengthening exercises:

Tongue-strengthening exercises can help improve your swallowing. With practice, these exercise may help you increase your tongue strength and mobility. This may improve your ability to swallow, especially when used with other types of swallowing exercise Before you swallow, you chew your food to a size, shape, and consistency that can be swallowed. When you swallow, this material passes through your mouth and into a part of your throat called the pharynx. From there, the chewed food passes through a long tube (esophagus) before entering your stomach and the rest of your digestive tract.

This movement requires a series of coordinated actions from your muscles along this path. If something doesn't work properly, it can lead to problems swallowing. Muscle weakness in these areas can make proper swallowing difficult. Swallowing exercises can increase strength, mobility, and control of these muscles. Over time, this may help you to swallow normally again. The specific tongue exercises are as follows:

- Stick out your tongue as far as you can. Put something flat like a spoon or tongue depressor on your tongue. Push against your tongue with the flat object and push your tongue against the object. Hold for a couple of seconds. Repeat 5 times.
- Extend your tongue as far as possible to the corner of your mouth while pushing against a depressor. Hold for a couple of seconds. Relax. Repeat on the other side of your mouth. Repeat the whole process 5 times.
- Extend your tongue to the bumpy part on the top of your mouth right behind your teeth. Then curl your tongue back toward the back of your mouth as far as possible. Hold for a few seconds. Repeat 5 times.
- Inhale and hold your breath very tightly. Bear down like you are having a bowel movement. Keep holding your breath and bearing down as you swallow. This is called a super-supraglottic swallow. Repeat a few times.
- Pretend to gargle while holding your tongue back as far as possible. Repeat.
- Pretend to yawn while holding your tongue back as far as possible. Repeat.
- Do a dry swallow, squeezing all your swallowing muscles as tightly as you can. Imagine swallowing a vitamin whole, without water. Repeat a few times.



Resisted Tongue Exercises:





Guidelines for safe swallowing: Remember that dysphagia patients have individual requirements, so all these guidelines may not apply to every patient.

- Maintain an upright position (as near 90 degrees as possible) whenever eating or drinking.
- Take small bites only 1/2 to 1 teaspoon at a time.
- Eat slowly. It may also help to eat only one food at a time.
- Avoid talking while eating.
- When one side of the mouth is weak, place food into the stronger side of the mouth. At the end of the meal, check the inside of the cheek for any food that may have been pocketed.



- Try turning the head down, tucking the chin to the chest, and bending the body forward when swallowing. This often provides greater swallowing ease and helps prevent food from entering the airway.
- Do not mix solid foods and liquids in the same mouthful and do not "wash foods down" with liquids unless you have been instructed to do so by the therapist.



- Eat in a relaxed atmosphere, with no distractions.
- Following each meal, sit in an upright position (90-degree angle) for 30 to 45 minutes.

Food consistency for people with dysphagia:

Level 1: Foods in this group are puréed to a smooth, mashed potato-like consistency. If necessary, the puréed foods can keep their shape with the addition of a thickening agent. Meat is puréed to a smooth pasty consistency. Hot broth or hot gravy may be added to the puréed meat, approximately lounce of liquid per 3 ounce serving of meat. Be cautious that if any food does not purée into a smooth consistency, it may make eating or swallowing more difficult.

Level 2: Foods in this group should be minced/chopped into very small pieces (1/8 inch). The flecks of food are similar in size to sesame seeds.

Level 3: Foods in this group should be ground/diced into 1/4-inch pieces. These pieces of food are similar in size to rice.

Level 4: Foods in this group should be chopped into 1/2-inch pieces. These pieces of food are similar in size to uncooked elbow macaroni or croutons (small bread cubes).



Level 5: Foods in this group are soft, moist, regularly textured foods.



Thickening and Thinning Agents

Foods can be thickened or thinned to individual requirements. Many foods can be used to change a liquid to a different consistency. The amount of thickening agent needed to reach a certain food consistency varies depending on the food being thickened and on the thickening agent used.

How to Thin Liquids? Add hot milk-based liquids (hot milk or cream) to puréed soups, puréed vegetables, or cooked cereal. Add other hot liquids (broth, gravy, sauces) to mashed potatoes, puréed, or ground meats, and puréed or chopped vegetables. Butter or melted margarine may also be used. Add cold milk-based liquids to cream, yogurt, cold soups, puréed fruits, or puddings and custards.



How to Thicken Liquids and Foods? Add baby rice or commercial thickener to hot milk-based liquids. Add potato flakes, mashed potatoes, or flaked baby cereal to other hot liquids (soups, sauces, gravies). Add plain unflavored gelatin, puréed fruits, banana flakes, or a commercial thickener to cold liquids. Add potato flakes, mashed potatoes, thick sauces, or gravies, canned puréed or strained meat (baby food), or a commercial thickener to puréed soups. Add flaked baby cereal, flavored gelatin, cooked cream of rice or wheat cereal, or a commercial thickener to puréed fruits. Add mashed white or sweet potatoes, potato flakes, sauces, or commercial thickener to puréed soups.

XIII. BREATHING EXERCISES & CHEST CLEARING PROCEDURES:

Respiratory conditions are the most common cause of prolonged stay in hospital settings, with a vast variety of clinical diagnosis being assessed and physiotherapy contribution along with medical treatment. Conditions which necessitate physiotherapy involvement include pneumonia, chronic bronchitis, asthma, bronchiectasis, cystic fibrosis, hyperventilation and chronic obstructive pulmonary disease. The physiotherapist's role in patient care includes assessment, advice, education and active hands-on intervention. Traditionally, respiratory physiotherapists aid the mobilization and removal of secretions. However, their scope extends to an array of measures



for further betterment of patients like:



i. Mobilizing secretions leading to effective coughing and removal of secretions.

- ii. To teach appropriate breathing patterns and control.
- iii. To mobilize thorax and shoulder girdle with proper postural awareness.
- iv. Reduce breathlessness and the work of breathing
- v. Improve the efficiency of ventilation support.
- vi. Weaning from ventilators and support further non-invasive mechanical ventilation
- vii. Improve functional abilities and exercise tolerance (i.e. carrying out daily tasks)

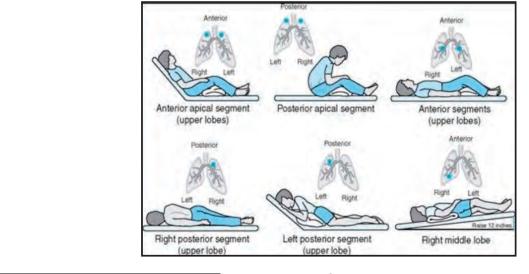
viii. Home management advice.

Chest physiotherapy (CPT) is an ambiguous term which refers to a variety of physiotherapy modalities used in the treatment of patients with underlying cardio-respiratory pathology. This includes airway clearance techniques (ACT), exercise, thoracic mobility exercises, positioning, breathing exercises, and inhalation therapy.

The following techniques are all part of chest physical therapy:

Postural drainage and Percussion (PD&P)

Postural drainage uses the force of gravity to assist in effectively draining secretions from the smaller airways into the central airway where they can either be coughed up or suctioned out. Each position consists of placing the target lung segment(s) superior to the carina. Positions should generally be held for 3 to 15 minutes (longer in special situations). Standard positions are modified as the patient's condition and tolerance level. Before determining the postural drainage position, it is very important to auscultate the lungs and identify the lung segments where added sound (Crepitus, Ronchi) is heard. Postural drainage can be facilitated with percussion and vibration in the postural drainage position.



The patient is placed in a head- or chest-down position and is kept in this position for up to 15 minutes. To obtain the head-down positions, the use of a pillow, bean bag chair, or couch cushions can be helpful. Often, percussion and vibration are performed in conjunction with postural drainage.

Percussion

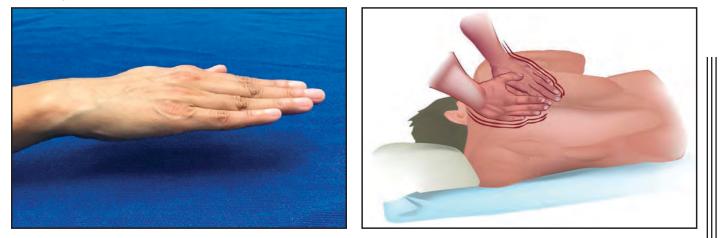
Percussion involves rhythmically striking the chest wall with cupped hands. It is also called cupping or clapping. The purpose of percussion is to break up thick secretions in the lungs so they can more easily be removed. Percussion is performed on each lung segment for one to two minutes at a time. Mechanical percussors are available and may be suitable for children over two years of age. The percussor is moved over one lobe of the lung for approximately 5 minutes, while the patient is encouraged to perform coughing and deep breathing techniques. This process is repeated until each segment of the lung is percussed. The hand is cupped as if to hold water but with the palm facing down (as shown in the picture below). The cupped hand curves to the chest wall and traps a cushion of air to soften the clapping.

Percussion is done forcefully and with a steady beat. Each beat should have a hollow sound. Most of the movement is in the wrist with the arm relaxed, making percussion less tiring to do.



Vibration

As with percussion, the purpose of vibration is to help break up lung secretions. Vibration can be either mechanical or manual. It is performed as the patient breathes deeply. When done manually, the person performing the vibration places his or her hands against the patient's chest and creates vibrations by quickly contracting and relaxing arm and shoulder muscles while the patient exhales. The procedure is repeated several times each day for about five exhalations. Vibration is done with the flattened hand, not the cupped hand (see the figure below). Exhalation should be as slow and as complete as possible.



The therapist places a firm hand on the chest wall over the part of the lung being drained and tenses the muscles of the arm and shoulder to create a fine shaking motion.

Indications for postural drainage:

These techniques are used at intervals on people who have conditions that cause a great deal of sputum to be produced, for example cystic fibrosis, bronchiectasis (irreversible widening of the airways), or sometimes COPD (chronic obstructive pulmonary disease). The techniques may also be used when people cannot cough up sputum effectively, as may happen with older people or with people who have muscle weakness or who are recovering from surgery, injury, or severe illness.

Contraindications

Postural drainage cannot be used for people who

- Cannot tolerate the position required
- Have recently vomited up blood
- Have had a recent rib or vertebral fracture
- Have severe osteoporosis
- Have a high risk of bleeding

Postural drainage also should not be used for people whose lung condition does not involve excess mucus secretion.

Positioning of Patient for Postural drainage:

Body position has also been shown to affect oxygenation. Alterations in ventilation-perfusion inequality have been suggested as the main reason for improved oxygenation in these body positions. The following pictures describe the positions for postural drainage. Pillows may be used for added comfort. If the person tires easily, the order of the positions can be varied, but all areas of the chest should be percussed or clapped.

- Please remember to clap and vibrate only over the ribs.
- Avoid clapping and vibrating over the spine, breastbone, stomach, and lower ribs or back to prevent trauma to the spleen on the left, the liver on the right, and the kidneys in the lower back.
- Do not clap or vibrate on bare skin.

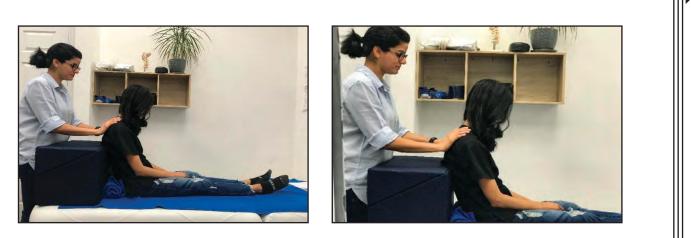
Self-Percussion -- Upper Lobes

The patient should sit upright and reach across his or her chest to clap on front of chest over the muscular area between the collarbone and the top of the shoulder blade. Repeat on the opposite site. Patient can also clap his or her own upper back if able to reach it.



Position 1. Upper Lobe Apical Segment

Have your patient sit upright. Clap on both sides of the upper front chest over the muscular area between the collarbone and the top of the shoulder blade.



Position 2. Upper Lobe Posterior Segment

Have your patient sit up and lean forward on a pillow over the back of a sofa or soft chair at a 30-degree angle. Stand or sit behind your patient and clap both sides of the upper back. Take care not to clap on your patient's backbone.



Position 3. Upper Lobe Anterior Segment

Have your patient lie on his or her back with arms to sides. Stand behind your patient's head. Clap both sides of your patient's chest between the collarbone and nipple.



Position 4. Lingula

The person will then lie on the right side, face down toward the foot of the bed, with the hips and legs propped on pillows. The body should be rotated about a quarter-turn towards the back.

A pillow can also be placed behind the person. The legs should be slightly bent with another pillow placed between the knees. The caregiver will then percuss and vibrate just outside the nipple area.





Position 5. Middle lobe

For the middle lobe position, the person will lie face-down on his or her left side, a quarter-turn toward the back with the right arm up and out of the way. The legs and hips should be elevated as high as possible.

A pillow may be placed on the back and between slightly bent legs. The caregiver will percuss and vibrate just outside the right nipple area.



Position 6. Lower Lobe Anterior Basal Segment

In this position, the person will lie on the right side, face down facing the foot of the bed, with a pillow propped behind the back. The hips and legs should be elevated as high as possible on pillows. The knees should be slightly bent with a pillow placed in between. The caregiver will percuss and vibrate over the lower ribs on the left side and repeat the right side.



Position 7. Lower Lobes Posterior Basal Segment

For this position, the person will lie on his or her stomach with hips and legs elevated on pillows. The caregiver will percuss and vibrate the lower part of the back over the left and right sides of the spine, taking care to avoid the spine and lower rib.



Position #8 Lower lobes lateral basal segment

For these positions, the person will lie on the right side, leaning forward about one-quarter of a turn with hips and legs elevated on pillows. The top leg may be flexed over a pillow for support and comfort.

The caregiver will percuss and vibrate the uppermost portion of the lower part of the left ribs, repeating on the right side.



Position #9 Lower Lobes Superior Segment

For this final position, the patient will lie flat his or her stomach on a bed or table. Two pillows should be placed under the hips. The caregiver will percuss and vibrate the bottom part of the shoulder blades on both the right and left sides of the spine, taking care to avoid the spine itself.



Things to remember while doing postural drainage:

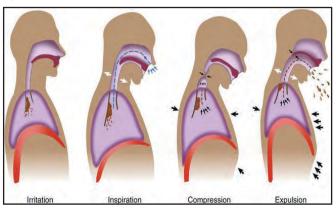
- You can nebulize the patient with saline or any bronchodilator agent before starting any physiotherapy exercise to reduce bronchospasm, decrease viscosity of mucus and sputum, and thereby liquefying them for enhancing secretion removal.
- Make suitable position as per the force of gravity to drain out bronchial secretions from affected lung segments to the dependent central airways.

- The required positions are determined depending on the location, severity, and duration of mucous obstruction.
- The physiotherapy exercises are performed at least twice or thrice a day before meals and bedtime and each position is done for 5-15 minutes.
- If patients develop signs of hypoxemia (tachycardia, palpitations, dyspnea, or chest pain) the procedure should be discontinued if it occurs. Immediately discontinue the exercise if hemoptysis occurs.
- Comfort of the patient must be of paramount consideration for active participation for positional physiotherapy exercises.
- Must ensure to auscultate the chest before and after the positional exercises to ascertain effectiveness of exercises and to further determine the areas of needed drainage.
- Encourage deep breathing and coughing after spending adequate time in each position.
- Diaphragmatic breathing should be encouraged throughout the postural drainage (this helps in widening of airways for effective secretions drainage).

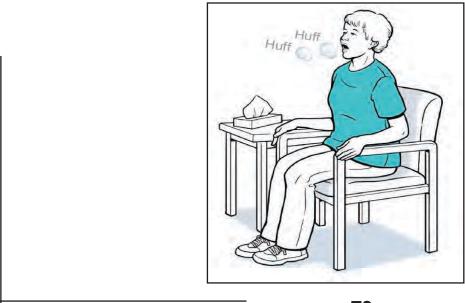
Removal of secretions

Forced maneuvers like coughing and huffing, are considered as the main techniques of airway clearance, and, thus, an essential part of every combination of treatment modalities. The concept is to enhance mucus transport due to forced maneuvers and energy transfer between the high airflow velocity and the mucus layer thus dislodging the mucus and leading to its removal.

Coughing: It involves a deep breath (full lung volume), with the help of abdominal muscles to ensure that the expiration is sufficient to remove secretions from airways.



Huffing: It is a forced expiration against open glottis. It generates less intrathoracic pressure than coughing. The patient is instructed to take a medium size breath in (mid lung volume), involving the abdominal muscles with fast expiration making a strong sighing sound. It is performed with pursed lips with the mouth slightly open.



Forced Expiratory Technique: It involves taking one or two huffs from mid to low lung volumes, with open glottis. Prerequisite for this involves a period of relaxed controlled diaphragmatic breathing before and after the procedure, with deep slow breaths.



Suctioning: Suctioning is recommended, in addition to postural drainage in case of an excessive accumulation of mucus in the lungs, probably due to poor cough function.



Turning

Turning from side to side permits lung expansion. The patient may turn on his or her own, or be turned by a caregiver. Turning should be done at a minimum of every two hours if the person is bedridden. The head of the bed can also be elevated in order to promote drainage.

Breathing Exercises to increase the lung capacity

Your lung capacity is the total amount of air that your lungs can hold. Over time, our lung capacity and lung function typically decrease slowly as we age after our mid-20s.

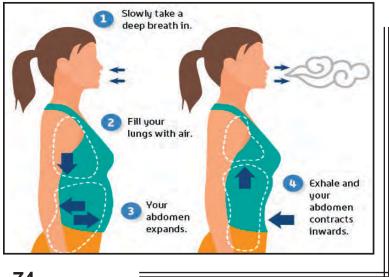
Some conditions like chronic obstructive pulmonary disease (COPD) can significantly speed up these reductions in lung capacity and functioning. This leads to difficulty in breathing and shortness of breath.

So, these are the exercises that can help maintain and increase lung capacity, making it easier to keep your lungs healthy and get your body the oxygen it needs.

Diaphragmatic Breathing

Diaphragmatic breathing is a type of breathing exercise that helps strengthen your diaphragm, an important muscle that helps you breathe as it represents 80% of breathing. This breathing exercise is also sometimes called (belly breathing or abdominal breathing).

When the diaphragm is functioning effectively in its role as the primary muscle of inspiration, ventilation is efficient and the oxygen consumption of the muscles of ventilation is low during relaxed (tidal) breathing. When a patient relies substantially on the accessory muscles of inspiration, the mechanical work of breathing (oxygen consumption) increases and the efficiency of ventilation decreases.



Controlled breathing techniques, which emphasize diaphragmatic breathing are designed to improve the efficiency of ventilation, decrease the work of breathing, increase the excursion of the diaphragm, and improve gas exchange and oxygenation.

Aims

- 1. To mobilize secretions.
- 2. To teach effective coughing and remove secretions.
- 3. To teach relaxation.
- 4. To teach breathing control.
- 5. To teach postural awareness.
- 6. To mobilize thorax and shoulder girdle.

Physiological Effect

- 1. It helps you cope with the symptoms of post-traumatic stress disorder (PTSD).
- 2. It improves your core muscle stability.
- 3. It improves your body's ability to tolerate intense exercise.
- 4. It slows your rate of breathing so that it expends less energy.
- 5. It helps you relax, lowering the harmful effects of the stress hormone cortisol on your body.
- 6. Improve respiratory capacity.
- 7. It helps lower your blood pressure

Technique

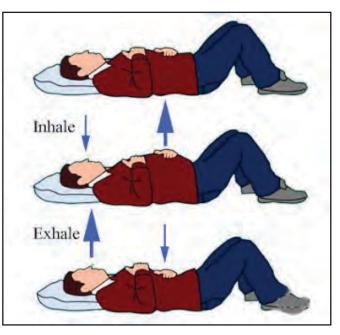
1. Lie on your back on a flat surface (or in bed) with your knees bent. You can use a pillow under your head and your knees for support if that's more comfortable.

2. Place one hand on your upper chest and the other on your belly, just below your rib cage.

3. Breathe in slowly through your nose, letting the air in deeply, towards your lower belly. The hand on your chest should remain still, while the one on your belly should rise.

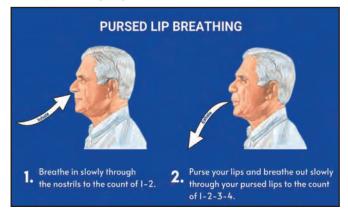
4. Tighten your abdominal muscles and let them fall inward as you exhale through pursed lips. The hand on your belly should move down to its original position.

You can also practice this sitting in a chair, with your knees bent and your shoulders, head, and neck relaxed. Practice for five to 10 minutes, several times a day if possible.



Pursed Lip Breathing

To practice pursed lip breathing, breathe in slowly through your nose for two counts, keeping your mouth closed. Take a normal breath. Pucker or "purse" your lips as if you were going to whistle and breathe out.



Pursed lip breathing is one of the simplest ways to control shortness of breath. It provides a quick and easy way to slow your pace of breathing, making each breath more effective.

Effects of pursed lip breathing

Pursed lip breathing

- Improves ventilation
- Releases trapped air in the lungs
- Keeps the airways open longer and decreases the work of breathing
- Prolongs exhalation to slow the breathing rate
- Improves breathing patterns by moving old air out of the lungs and allowing for new air to enter the lungs
- Relieves shortness of breath
- Causes general relaxation

Technique

Use this technique during the difficult part of any activity, such as bending, lifting or stair climbing.

Practice this technique 4-5 times a day at first so you can get the correct breathing pattern.

- Relax your neck and shoulder muscles.
- Breathe in (inhale) slowly through your nose for two counts, keeping your mouth closed. Don't take a deep breath; a normal breath will do. It may help to count to yourself: inhale, one, two.
- Pucker or "purse" your lips as if you were going to whistle or gently flicker the flame of a candle.
- Breathe out (exhale) slowly and gently through your pursed lips while counting to four. It may help to count to yourself: exhale, one, two, three, four.





Inhale

Exhale

With regular practice, this technique will seem natural to you. Pursed lip breathing reminders

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Pucker or Purse

- Do not force the air out.
- Always breathe out for longer than you breathe in.
- Breathe slowly, easily, and relaxed ... in and out ... until you are in complete control.

Postural awareness

Rounded shoulders, kyphosis, lordosis, scoliosis and head thrust forward are common postural abnormalities. Such abnormalities limit thoracic spine mobility and hence decrease chest expansion. Therefore it is essential to teach patients to relax the upper tar so, straighten the spine and keep the head erect while walking or sitting. This must be applied in positions of work and when sitting resting, e.g. reading or watching television.

Mobilizing the thorax and shoulder girdle

Exercises involving thorax and shoulder are useful in mobilizing the lower part of the thorax and to encourage basal expansion to prevent atelectasis and improve coughing. Examples of such exercises are:

Trunk Rotations

- Sit in a relaxed position.
- Cross your arms in front of you, keeping your shoulders relaxed.
- Breathe in through your nose.
- Breathe out through your pursed lips and turn your body to one side.
- Breathe in.
- Breathe out and return to centre.
- Repeat to the other side.
- Repeat 3 to 5 times in each direction.



Reaching to the sky

- Sit with your arms relaxed by your side.
- Breathe in through your nose.
- Breathe out and lift one arm up, reaching to the sky.
- Breathe in.
- Breathe out and return the arm to the start position.
- Repeat with the other arm.
- Repeat cycle 3 to 5 times.



Windmill

- Sit with arms relaxed by your side.
- Breathe in through your nose.
- Breathe out through your pursed lips and bring your arms up over your head and try to touch your palms together.
- Breathe in.
- Breathe out and bring your arms back to the start position.
- Repeat 3 to 5 times.

Seated Kicks

- Sit in a relaxed position with both feet flat on the floor.
- Breathe in through your nose.
- Breathe out through your pursed lips and kick your foot up off the floor.
- Breathe in.
- Breathe out and lower it back to the start position.
- Repeat with the other leg.
- Repeat cycle 3 to 5 times.

Shoulder Shrugging

- Sit with your shoulder relaxed and your arms by your side.
- Breathe in through your nose.
- Breathe out through your mouth and lift your shoulders up as if trying to touch your ears.
- Breathe in.
- Breathe out through your pursed lips and relax your shoulders to the start position.
- Repeat 3 to 5 times.

Shoulder Rolls

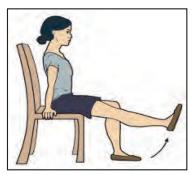
- Sit with your shoulders relaxed and your arms by your side.
- Breathe in through your nose and out through your pursed lips in a slow, controlled manner.
- Roll your shoulders backwards for 3 to 5 breath cycles.
- Repeat rolling your shoulders in a forward direction for 3 to 5 breath cycles.

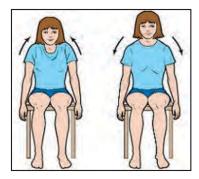


Foot Rocking

- Sit in a relaxed position with both feet flat on the floor.
- Breathe in through your nose and out through your pursed lips in a slow, controlled manner.

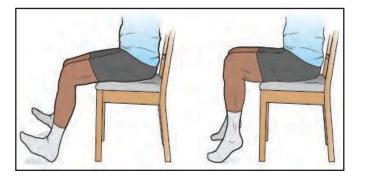








- Rock your feet from heel to toes in a smooth pattern.
- Continue for 3 to 5 full breath cycles.



Neck Stretches

Sit in a relaxed position with your arms by your side. Do these slowly and gently. Ear to shoulder

- Breathe in through your nose.
- Breathe out and lean your head to one side as if trying to touch your ear to your shoulder. Keep your eyes looking forward.
- Hold the position and breathe in and out 3 times.
- Return to centre on your last breath out.
- Repeat going to the other side.



Chin to chest

- Breathe in through your nose.
- Breathe out and drop your chin down to your chest, keeping your shoulders relaxed.
- Hold the position and breathe in and out 3 times.
- Return to centre on your last breath out.



Turning to one side

- Breathe in through your nose.
- Breathe out and turn your head to one side.
- Hold the position and breathe in and out 5 times.
- Return to centre on your last breath out.
- Repeat going in the other direction.



XIV. ROLE OF MASSAGE THERAPY IN THE REHABILITATION

Massage therapy has long been used to ease pain, provide comfort, and address cognitive and neurological issues. Currently, there are many massage therapists who focus their practice solely on headaches, sports related concussions and other TBI related issues. Massage therapy helps people who have suffered from TBI by easing the pain of a traumatic injury, providing comfort, flushing the lymphatic system to enable healing and by helping with neurological issues.



Effectiveness of massage therapy:

Individuals who have suffered a brain injury are often unable to exercise and can remain inactive for long periods. This can cause issues with metabolic waste products that needs to be removed from the body. Massage therapy can help, ensuring that the flow of blood and lymph fluid is improved. Using massage therapy, it's possible to improve and potentially partially restore the proper joint function. This can include everything from the spine to the extremities.



Brain injuries can also cause chronic tension in certain areas of the body. To improve this, oxygen flow needs to be improved in these areas. This provides healthy nutrients to the body and awakens sensory receptors and ensures that the muscles become more active. People who suffer from a brain injury often experience painful muscle spasms. This can be recurring and unfortunately common throughout even a short time. This is typically caused by scar tissue that hasn't healed fully and instead becomes stretched or broken. A deep muscle massage can help here, particularly if a person has inactive muscles due to this type of injury.



Preparation of the patient for massage:

• Ask the patient to sit in the middle of the table, then lay on her side, using the arms to support her weight while lying down.

• Have her turn onto her stomach with her face in the face cradle. Place a bolster under the ankles and adjust the drape. Deep, rhythmic breathing by you, the therapist, throughout the massage will help you maintain your focus, connect with your client, and facilitate the flow of the massage.

Hands and Arms (Approximately 8 Minutes)

• Effleurage the patients right hand and arm several times to spread lubricant and warm the tissues. Use alternating one-handed petrissage on the palm and thumb glide between the metacarpals.



• Turn the hand over: slip your little finger in between the client's middle and ring finger, and your fourth finger between the client's ring and little finger.

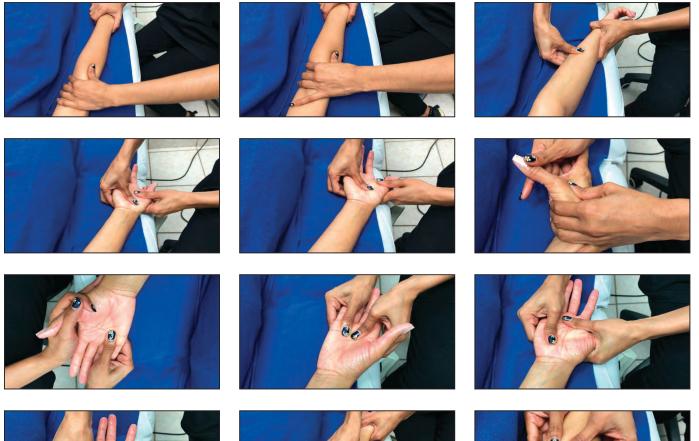


• Put your other little finger between the client's middle and index finger, and your ring finger between the client's index finger and thumb. Open the palm of the hand and work with thumb glides; hold acupressure points (unlike the foot, these points are held two at a time: hold 1 and 2 at the palm heel, move one thumb's width toward the fingers for 3 and 4, move one thumb's width toward

fingers for 5 and 6, and move back down).



• Release the fingers and hold the hand with one of your hands; draw the forearm up to a 45- degree angle, elbow resting on the table. Use one-handed petrissage on the forearm, alternating hands. Thumb glide and friction the forearm.

















How to do Self Hand Massage:

To get the most benefits from a hand massage, it's best to do it every day for at least 15 minutes. Try to use moderate pressure instead of light pressure, especially if you have hand pain. Doing a hand massage before bedtime may improve the quality of your sleep. You may want to apply some heat to your hands and arms before you start to help your muscles relax. Then, take the following steps:

• Remove all jewelry. Before you begin massaging your hands and fingers, be sure to take off any rings or bracelets that may get in the way.



- Sit in a comfortable position. To apply moderate pressure, it may be easier to have one hand on a table while you use your other hand to do the massage strokes.
- Loosen your hands up. Shake them out and wiggle your fingers about. Stretch your hands by flexing them as wide as you can, and then make a fist. Bend your wrists with your hands points down, and then flex your hand up and down several times. Continue to use these techniques for about one minute before you begin to massage your hands.



• Use your palm to stroke your forearm from the wrist to the elbow and back again on both sides. If you want to, you can extend the stroking to your shoulder. Do this at least three times on both sides of your forearm. The idea here is to warm up your muscles.



- Use your palm to stroke from your wrist to your fingertips on both sides of your hand. Do this at least three times. Use moderate pressure.
- Use your thumb to do most of the work. Start by holding out one of your hands, keeping your fingers straight. Then, wrap your opposite hand's fingers around the back of your hand with your fingers facing straight up. Your thumb should be laying on your palm and pointing towards you.



• Apply the amount of pressure you are comfortable with. Start off using light pressure, and then work your way towards a deeper massage. This will help you find tender, sore, or tight spots.



• When you reach the finger, continue to pinch up the finger with a firm pressure. Inch your thumb up and down each finger, starting at the balls, and working your way up slowly to the tip of your finger. Squeeze along the sides of your fingers, too. Repeat this for every finger.



• Reverse your hand placement and go to the space between the thumb and the index finger. There is a muscle here that holds most of the tension in the hand. Here, you will do some deep compressions, kneading, or gliding. You can do this by either pinching with the thumb and index finger or using your knuckles.



XV. CUPPING THERAPY

Introduction

Cupping therapy is a physical treatment which refers to a technique that uses small glass cups or bamboo jars as suction devices that are placed on the skin. It has been used for thousands of years, said to be as early as 3000 BC. This method is mostly used in Asian and Middle Eastern countries. Cupping is believed to have potential benefit in treating myriad types of disease and conditions. The most common conditions were pain related such as chronic muscle pain, low back pain, neuralgia pain, fibromyalgia, headache & migraine.



History of Cupping

The practice of cupping is over 5000 Years old. The effect has remained the same; only the cups and the techniques have changed over these many years. We can find the application of suction cups in the medicine of all "Primitive" people, as well as in the oldest civilizations. Traditionally, Cupping Therapy has been practiced in most cultures in one form or another. Over the centuries, cupping techniques and styles have often been influenced by their geographical location, as well as by the materials used in that area: animal horns, bamboo, ceramic, glass, metal, and plastic have all been used in this procedure found in Ancient Egyptian, Chinese, Unani, Korean, Tibetan, and Latin American cultures, whose purpose has been to assist the body in self-healing. The Arabic name for Cupping Therapy is Al-Hijamah which means to reduce in size i.e. to re-

turn the body back to its natural state. The practice of Al-Hijamah has been part of Middle-Eastern cultural practice for thousands of

years with citations dating back to the time of Hippocrates (400 BC). As prescribed by Al-Qanun Fi'l-Tibb, Canon of Medicine (1025 CE), cups are often used to treat conditions related to menstruation in Arabic and Islamic countries. It is reported that **Prophet Muhammed (PBUH)** used it and advocated its use.

In the Chinese tradition, the evidence of the use of cupping therapy can be traced back to the early Han Dynasty. Ge Hong – a famous herbalist and alchemist during the Jin Dynasty is considered the first to use this technique in China. He strongly believed that with "cupping and acupuncture combined, more than 1/2 of the ills can be cured".





Chinese cupping is a form of Oriental healing and traditional Chinese medicine that is believed to be around three thousand years old, and from the first accounts, it is known to heal pulmonary tuberculosis. A Handbook of Prescriptions for Emergencies, written in 300 AD by Ge Hong, a Taoist herbalist. This form of healing cup therapy is non-invasive in nature and works on the Chinese surmise that ailments are caused when the "qi" or "chi" or the life force of the body is disrupted because of some ailment or injury. Cupping therapy works to restore this equilibrium and thus heal the patient and provide pain management. Traditional Chinese form of healing is deeply rooted in nature and man's harmony with his surroundings. It is based on four basic beliefs:

1. Humans are closely linked to their environment and all factors such as their location on earth, month of the year and time of the day all affect their bodies. Other factors also play an important part such as age, genetic background and body type.

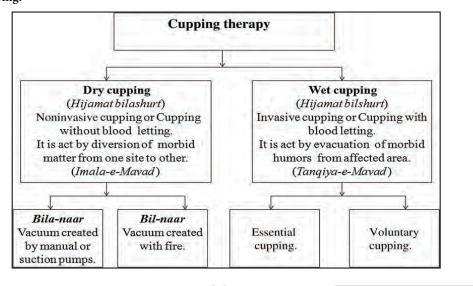
2. The human body is a comprehensive structure that includes not just the body but also the mind, spirit, emotions and feelings that together make up a complete person. Each of these are driven by the life energy inside a person.

3. The human body has the innate ability to heal itself and sometimes just needs a little stimulation in the right way.

4. The human body is capable of giving the person signals about its condition and people should know how to recognize these signals and understand the signs so they can take action before they actually fall ill.



Classification of Cupping:



There are mainly two types of cupping therapy, dry cupping and wet cupping. Dry cupping is the process using vacuum on different areas of the body in order to accumulate blood in that area without any incisions made. Olive oil may be applied to the cupping area to allow easy movements of the cups and create a massaging effect. In wet cupping, small incisions or puncture are made on the skin using small razor or needle before treatment. When the cup is applied and the skin is drawn up using vacuum, a small amount of blood may flow from the puncture sites, which are believed to help removing harmful substances and toxins from the body.

Mechanism behind cupping therapy:

The practice of applying a partial vacuum causes the tissues beneath the cup to be drawn up and swell, thereby increasing blood flow to the affected area. This enhanced blood flow draws impurities and toxins away from the nearby tissues and organs towards the surface for elimination via the break in the skin layer created through the incisions made prior to the application of the "cup" or similar device. The vacuum or sucking effect can be achieved by many different methods including sucking with the mouth directly over a cut or wound (as in the case of poisonous bites), using a leech to draw blood, the use of instruments such as animal horns as was done in ancient times, or the more modern methods of using bamboo, glass or plastic "cups", either with fire or a pump mechanism.



TCM teaches that it is the stagnation of qi and blood that causes pain and disease. Cupping invigorates local circulation of qi and blood in the area being treated, resolving swelling, pain, and tension. By drawing impurities to the surface, it removes toxins. From a Western physiology perspective, cupping loosens connective tissue or fascia and stimulated blood flow to the surface. Cupping stimulates tissue relaxation and better cell-to-cell communication.



Leeches were also commonly used for drawing blood and have been approved by the FDA in the US for use in plastic and reconstructive surgery. These medicinal leeches are valued because while drawing blood they release natural anticoagulant and anesthetic substances and are therefore able to efficiently restore blood flow. Some cupping clinics employ the use of medicinal leeches and while it may be unpleasant it is in fact a safer and preferred option, which also leaves less scarring.

Cupping, Hijamah (wet cupping) or Bloodletting

Even amongst those who practice cupping, "wet" cupping is regarded as the curative modality whereas dry cupping (in which no blood is removed), is a "relaxation therapy" and often practiced as part of relaxation massage techniques. Chinese medicine practitioners however do use dry cupping in order to "invigorate blood flow" in cases of blood "stasis", yet this is a relatively new phenomenon in Chinese medicine where



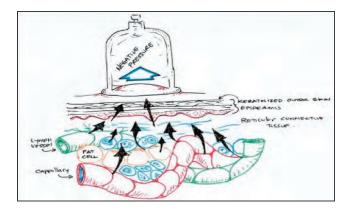
practitioners especially in western countries avoid drawing blood. While dry cupping has its uses, it is limited in its therapeutic effectiveness since the blood is drawn to the surface but not released, hence the effect of improving blood flow as well as release of some heat through the pores is achieved, but it is a temporary effect.

Hippocrates and Galen were also great advocates of Hijamah. In Hippocrates' time bloodletting was topological and not used in terms of the theory of the 4 humors. Specific points were bled for specific illnesses. Galen explains that the principal indication for bloodletting is to eliminate residues or divert blood from one part of the body to another. His approach was based on two key Unani concepts prevalent at the time. First, that blood did not circulate well in the body, and that it eventually went stagnant until it was "let out". Secondly, the concept of the balance of the four humors (blood, phlegm, black bile and yellow bile) was the source of health or illness, in which case bloodletting is used to bring about balance between these humors.

What is Hijama?

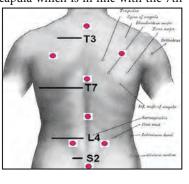
Hijama, also known as Wet Cupping is a safe, non-invasive therapeutic trauma that involves creating a controlled subcutaneous inflammation via means of Myofascial Decompression and Scarification. In this process, Hijama cups are placed on the targeted anatomical site. Blood and lymph, among other fluids, are drawn via means of vacuum and then bled through superficial skin scratches. Hijama targets the outermost layer of the skin "The Epidermis" layer. Hijama clears lymphatic fluids, aged / deformed red blood cells, Histamine, Uric Acid, Prostaglandins, Bradykinin, Cancerous cells, Heavy Metals, Lactic Acid, and interstitial fluids from the microcirculation. The body then automatically activates its natural defense mechanism (Hemostasis), which stops the bleeding.

Hijama is performed using single-use, disposable cups, and a single-use sterile surgical blade. Negative pressure applied by Hijama ruptures weak capillaries that have lost elasticity and deteriorated, in cases beyond repair. The incisions are made on intact skin, in an aseptic condition. They look more like a scratch or a paper cut. Capillary cells regenerate from pre-existing blood vessels; this process is called angiogenesis. Angiogenesis occurs to heal the body and restore blood flow to affected tissues. The Endothelial cells mend themselves and create a new capillary. The activated endothelial cells produce enzymes and growth factors that trigger the healthy multiplication of more endothelial cells and release them into the surrounding tissue. This process forms new capillaries and increases the vascular network. The negative pressure under the cup has up to a 4-inch effect on deep tissues, which stimulates the body to remove unhealthy toxins as they trickle out in the cup and cleanse the target points.



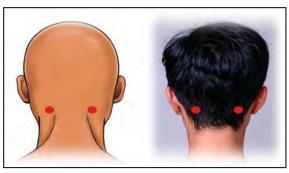
From examination purpose the practitioners of Hijamah (wet cupping) used the following areas in this general form: 1. The area between the shoulder blades, most commonly in line with the inferior angle of the scapula which is in line with the 7th thoracic vertebra.

Sometimes other points lateral to the spinal column between the spinous processes of the 6th to 9th thoracic vertebrae are used. This particular area is the best for performing general Hijamah (wet cupping points) as it is the area where toxins and impurities in the blood accumulate and stagnate especially around the 17th, 19th, and 21st of the month. In Traditional Chinese Medicine this point is regarded as the meeting point of the blood and is used for all blood disorders whether due to deficiency or excess.



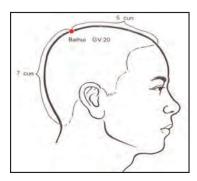
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2. GB 20: The occipital area of the neck in the recesses formed between the upper portion of the 37 sternocleidomastoid and the trapezius muscles. This is in the region of a commonly used acupuncture point called Feng Chi, which means "wind pool". It is believed that many pathogens enter the body at this area and that is why it is recommended to cover this area when it is cold or windy. Treating this area is helpful in resolving a number of common ailments of the head and neck, including headache, vertigo, pain/stiffness of neck, blurry vision, red/painful eyes, tinnitus, nasal obstruction, common cold, and rhinorrhea (runny nose, nasal discharge associated with allergies or hay fever or common cold). It's also very useful for insomnia, and tends to have a relaxing and balancing effect upon the nervous system.



3. On the head in the midline, the exact point is normally directly above the apex of the ear as in the diagram below:

In Traditional medicine this point corresponds with the acupuncture point called Bai Hui, meaning a hundred convergences and is the meeting point of all the yang energy of the body. It is commonly used to treat all mental, emotional disorders, but also useful for headaches, epilepsy, neurological and endocrine disorders.



4. On the anterior aspect of the foot in a depression distal to the junction of the 2nd and 3rd metatarsal bones. This area is traditionally used to treat swelling, headache, dizziness / vertigo, abdominal pain, bloating, constipation. It can also aid groundedness and focus and treat ADD/ADHD, mania, restlessness, palpitations and epilepsy.



Note: Women are not in need of regular Hijamah as they do release blood through the menses.

Common effects of Hijamah:

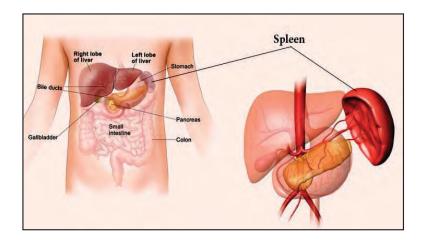
- 1. Removal of "bad" blood or impurities from the blood.
- 2. Diverts and expels toxins and harmful impurities from the vital organs.
- 3. Removes excess blood.

- 4. Removes excess heat from the blood and surface of the body.
- 5. Draws inflammation away from the deeper organs.
- 6. Assists the body's own healing abilities.

Effect of Hijamah on the Organs and the Systems

Hijamah has specific and general effects on the organs of the body and these are largely based on the indirect effects on circulation and altering of the blood composition. There are some direct effects however that relate to the area being bled and its connection with the particular organ.

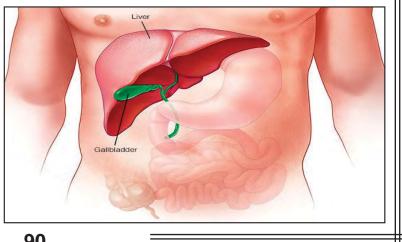
Spleen: The spleen is an organ in the body that acts as a blood filter. It removes old red blood cells and holds a reserve of blood in case of massive blood loss. It also recycles iron and has an important role in the function of the immune system. Disorders of the spleen include splenomegaly, where the spleen is enlarged for various reasons, such as cancer, specifically blood-based leukemias, and asplenia, where the spleen is not present or functions abnormally.



From the results of the composition of Hijamah blood, it is clear that Hijamah can reduce the load on the spleen by assisting in its function of removing aged blood cells and thereby assist with splenomegaly where it is due to congestion of the spleen due to inability to process large amounts of damaged or old RBCs. Hijamah is also necessary where the spleen has been removed.

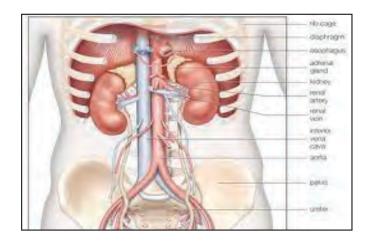
Liver: The liver is a vital organ that has a wide range of functions in the human body, including detoxification, protein synthesis and production of biochemicals necessary for digestion. This organ plays a major role in metabolism and has a number of essential functions in the body, including glycogen storage, decomposition of red blood cells, plasma protein synthesis, hormone production, and detoxification. Because of its location and various functions, the liver is prone to many diseases such as:

- 1. Infections such as hepatitis
- 2. Alcohol damage,
- 3. Fatty liver
- 4. Cirrhosis
- 5. Cancer
- 6. Drug damage

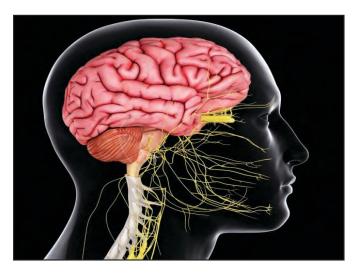


Many diseases of the liver are accompanied by jaundice caused by increased levels of bilirubin in the system. The bilirubin results from the breakup of the hemoglobin of dead red blood cells; normally, the liver removes bilirubin from the blood and excretes it through bile. Because the liver can easily become overworked, Hijamah has an effect on the liver similar to its effect on the spleen in that it reduces the work required by the liver in detoxifying the body and removing waste products. Hijamah therefore may assist in all the above liver diseases and also the resulting jaundice that may occur.

Kidneys: The effect on the kidneys is similar to that on the spleen. Hijamah assists the kidney's filtration function and lessens its load by removing impurities directly from the blood. After the procedure there is also heightened activity by the kidney in releasing erythropoietin which stimulates production of new red blood cells.



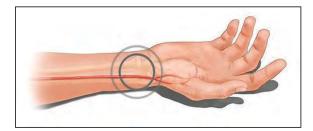
Nervous system: Anecdotal evidence shows that Hijamah is useful for both restoring proper blood flow to the brain (in cases of ischemia) as well as reducing pressure in the brain when it is high. Hijamah may therefore be useful in the prevention and treatment of stroke, and it is also noted for its ability to improve memory and focus as reported by those who have had it done. (Treating stroke with Hijamah is an advanced method of Hijamah treatment and should not be done without proper training,



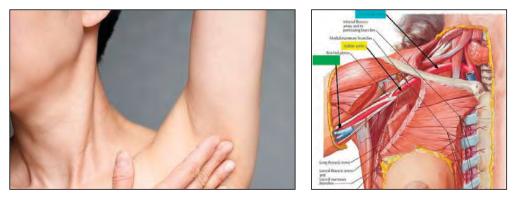
Areas/points that should not be bled

There are a number of areas that should not be bled for the purpose of Hijamah. Some of these lie in close proximity to arteries; others are empirically not suited to bleeding therapies. These include the following areas:

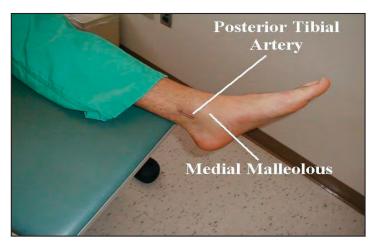
1. Over the radial artery at the wrist.



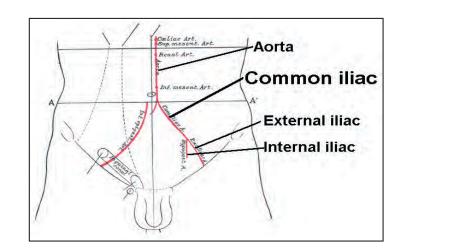
2. Over the axillary artery (in the armpit)



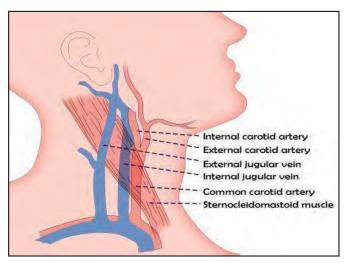
3. Over the posterior tibial artery



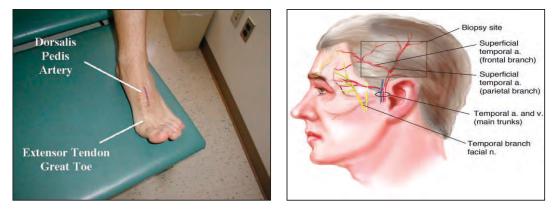
4. Over the external iliac artery on the lower abdomen



5. Over the carotid artery in the neck



Some areas that overly arteries can be bled but caution must be taken when bleeding so as not to puncture the artery and cause excessive bleeding, these include the dorsalis pedis on the upper aspect of the foot, the superficial temporal artery located at the temples on the head.



What to do after Hijamah?

There are a number of precautions that must be adhered to after the Hijamah procedure. These are essential to prevent infection and also to avoid adverse effects that may occur after the treatment.

1. The incisions should be cleaned and disinfected appropriately and thereafter covered with a suitable dressing or plaster.

2. The body is in a condition of vulnerability after Hijamah and care must be taken to avoid exposure to cold as well as the weakness that arises from not eating appropriately after Hijamah. For this reason it is recommended to cover the body appropriately after Hijamah especially if the weather may be cold or damp.

3. There is also the possibility of blood clots developing if the patient remains immobile afterward, one should therefore not go to sleep immediately afterwards but rather take a short walk and remain active for a few hours before resting.

4. Recommended foods include those that are rich in healthy fats and proteins and these should be taken one hour after the Hijamah. Plenty of fluids should be taken to redress the loss of body fluids, but refrain from caffeine and sugary drinks.

5. Hijamah patients should also avoid showering immediately after the procedure and take care not to scratch the incisions as this will contribute to scarring.

6. The dressing should be changed daily or as needed until the wound has completely healed.

7. The practitioner should dispose of the instruments used and the blood in an appropriate manner to avoid cross-infection.

SECOND MONTH PROTOCOL

I. Supplements

1. Vitamin D3: This vitamin is important for brain function since it helps regulate calcium levels, which is necessary for healthy brain cell communication. Vitamin D3 is known to be neuroprotective, meaning that it helps protect the brain from damage caused by free radicals and other harmful substances. It also helps regulate the levels of neurotransmitters like dopamine and serotonin, which are crucial for regulating mood, memory, and cognitive function. Research has shown that low levels of vitamin D3 are associated with an increased risk of depression, anxiety, and cognitive decline, particularly in older adults. One study found that older adults with low levels of vitamin D3 had a higher risk of developing dementia and Alzheimer's disease compared to those with adequate levels. In addition to its protective effects, vitamin D3 also helps promote the growth and development of new brain cells. This is particularly important for children and adolescents, as their brains are still developing and growing.



2. Beetroot Powder: contains nitrates, which are converted into nitric oxide in the body. Nitric oxide helps to increase blood flow to the brain, which is essential for proper brain function. Studies have shown that consuming beetroot powder can improve cognitive function, memory, and decision-making skills. Additionally, beetroot powder has been found to reduce inflammation in the brain, which can lead to a decreased risk of neurodegenerative diseases such as Alzheimer's and Parkinson's. Beetroot powder is also rich in antioxidants, which help to protect the brain from oxidative stress caused by free radicals.



3. Magnesium Glycinate: Magnesium is an essential mineral that plays a critical role in many bodily processes, including nerve function and brain health. One of the key benefits of magnesium glycinate is its ability to protect the brain from damage caused by injury or trauma. Studies have found that magnesium supplementation can help reduce the severity of brain injuries, including traumatic brain

injuries (TBIs) and concussions. Magnesium has been shown to have a neuroprotective effect, meaning it can help safeguard brain cells from damage and reduce inflammation in the brain. This makes it a promising treatment option for individuals who have suffered a brain injury or are at a high risk of experiencing one. In addition to its potential benefits for brain injury, magnesium glycinate may also be helpful in treating degenerative brain conditions such as Alzheimer's and Parkinson's disease. It can help improve cognitive function in individuals with Alzheimer's disease, and may even reduce the risk of developing the condition in the first place. Magnesium has also been shown to have a protective effect on dopaminergic neurons in the brain, which are responsible for producing the neurotransmitter dopamine that is depleted in Parkinson's disease.



4. Moringa or Bacopa Monnieri: Moringa, also known as the "miracle tree," is a plant that has been valued for its medicinal properties for centuries. It is rich in nutrients, antioxidants, and anti-inflammatory compounds. Recent studies have shown that Moringa may also have brain-boosting benefits. One of the key ways Moringa can benefit the brain is by reducing oxidative stress. Oxidative stress occurs when there is an imbalance between the production of free radicals and the body's ability to neutralize them. This can lead to damage to cells, including those in the brain. Moringa's high antioxidant content can help combat this damage and protect brain cells from oxidative stress. In addition, Moringa has been shown to have neuroprotective effects. This means that it can help protect the brain from damage and degeneration.



5. Sleep Well: Our sleep well gummies have Passiflora Incarnata and Melatonin that promotes relaxation and better sleep. Passiflora incarnata, commonly known as passionflower, has been used for centuries as a natural remedy for anxiety and insomnia. Recent studies have shown that it may also be beneficial for brain health, particularly in cases of brain injury and degenerative brain conditions. Passionflower contains compounds such as flavonoids and alkaloids that have antioxidant and anti-inflammatory properties, which may help to reduce damage to brain cells. In addition to passionflower, melatonin has also been studied for its potential benefits in brain injury and degenerative brain conditions. Melatonin is a hormone that is naturally produced by the body to regulate sleep-wake

cycles. It has also been shown to have antioxidant and anti-inflammatory properties, which may help to protect the brain from damage.



6. 5-HTP Dietary Supplement: 5-HTP is a naturally occurring amino acid that is converted into serotonin in the body. Serotonin is a neurotransmitter that plays a critical role in regulating mood, appetite, and sleep. 5-HTP supplements are commonly used to treat depression and anxiety, but recent research suggests that it may have broader applications in brain health. One potential application of 5-HTP is in the treatment of brain injuries. Studies have shown that 5-HTP can help to reduce inflammation and oxidative stress in the brain, which are common features of brain injury. Additionally, 5-HTP may also have a role in the prevention and treatment of degenerative brain conditions such as Alzheimer's and Parkinson's disease. Research has shown that serotonin levels are reduced in these conditions and that boosting serotonin levels may help to slow or prevent the progression of these diseases. One study found that 5-HTP supplementation improved cognitive function and reduced the severity of symptoms in patients with Parkinson's disease.



II. Essential Oils

1. Lemon Oil - Lemon oil has been shown to improve mood and enhance cognitive performance.



2. Cedarwood Oil - Cedarwood oil has a calming effect that can help reduce stress and anxiety, which can improve brain function.



3. Sage Oil - Sage oil has been shown to improve memory and cognitive performance.



4. Basil Oil - Basil oil has a stimulating effect that can improve focus and concentration.



5. Ylang Ylang Oil - Ylang Ylang oil has a calming effect that can help reduce stress and anxiety, which can improve brain function.



III. Seeds: The brain is one of the most important organs in our body, responsible for controlling every aspect of our daily life. To keep our brain functioning at its best, it is important to eat a healthy diet that includes foods that are good for the brain. Seeds are a great source of nutrients that are essential for brain health. Here are 5 seeds that are good for the brain:

1. Hemp Seeds - Packed with omega-3 and omega-6 fatty acids, hemp seeds are great for brain health and can help to improve memory and cognitive function.



2. Poppy Seeds - These tiny seeds are a good source of thiamine, a vitamin that is essential for brain function and the production of neurotransmitters.



3. Black Seeds - Also known as Nigella seeds, these seeds have been used for centuries to improve brain function and memory.



4. Mustard Seeds - These seeds are a good source of magnesium, which is essential for brain function and can help to improve memory and cognitive function.



5. Cumin Seeds - Rich in iron, cumin seeds help to improve blood flow to the brain and can help to improve cognitive function.



Incorporating these seeds into your diet can help to keep your brain healthy and functioning at its best. Whether you sprinkle them on your salad, add them to your smoothie, or simply snack on them throughout the day, these seeds are a great addition to any diet.

IV. HERBS GOOD FOR THE BRAIN

There are a variety of herbs that have been used for centuries to enhance brain function and improve overall cognitive health. Here are 5 of the best herbs that are good for the brain:

1. Ginseng - Ginseng is an herb that has been used for centuries to improve cognitive function and reduce stress.



2. Gotu Kola - This herb has been used in Ayurvedic medicine for centuries to improve memory and cognitive function.



3. Cramp Bark - This herb contains a variety of compounds that have been shown to have neuroprotective effects, which can help to prevent or slow down the progression of age-related cognitive decline, memory loss, and other neurological disorders. Cramp bark contains a range of anti-inflammatory compounds, including salicin and kaempferol, which can help to reduce inflammation in the brain and protect against damage.



4. Rosemary – Rosemary is an herb that has been used for centuries to improve memory and concentration.



5. Sage – Sage has been used for centuries to improve memory and cognitive function.



V. FOODS THAT YOU NEED TO INCLUDE IN YOUR DIET

Let discover the delicious foods that can boost your brain power and enhance your cognitive abilities. Incorporating these brain-boosting foods into your diet is a smart move towards a healthier and happier you. So, let's dive into these amazing foods that can help you maintain a sharp mind and improve your overall brain function.

1. Manuka Honey Coffee: The combination of Manuka honey and coffee creates a powerful drink that has been found to improve cognitive function and promote healing in the brain. Manuka honey is a unique type of honey that is produced in New Zealand from the nectar of the Manuka tree. It has been shown to have antibacterial and anti-inflammatory properties, which can be beneficial for people with brain injuries. Coffee, on the other hand, contains caffeine, which has been shown to improve mental alertness and cognitive function. When combined, Manuka honey and coffee create a potent beverage that can help people with brain injuries. The caffeine in coffee helps to improve mental alertness and cognitive function, while the antibacterial and anti-inflammatory properties of Manuka honey can help to reduce inflammation in the brain and promote healing. Additionally, Manuka honey has been found to improve memory and increase the production of brain-derived neurotrophic factor (BDNF), which is a protein that promotes the growth and survival of neurons in the brain.



2. Wild Rice: Wild rice, commonly known as Zizania palustris, is a type of aquatic grass that is native to North America. Unlike other types of rice, wild rice is not true rice but rather a type of grass seed. It has been used for centuries by indigenous people for its nutritional and medicinal properties. Wild rice is an excellent source of protein, fiber, vitamins, and minerals that are essential for maintaining a healthy body. Recent studies have shown that wild rice may be beneficial for patients with brain injury or brain conditions. Wild rice contains high levels of antioxidants that can help protect the brain from oxidative stress, which is a major contributor to brain damage. The antioxidants in wild rice can also help improve brain function and reduce inflammation, which can help alleviate the symptoms of brain injury or brain conditions. In addition to its antioxidant properties, wild rice is also rich in omega-3 fatty acids, which are essential for brain health. Omega-3 fatty acids have been shown to improve cognitive function, memory, and mood.



3. Quinoa: Quinoa is rich in essential vitamins and minerals that are crucial for brain health, such as vitamin E, magnesium, and iron. These nutrients can help improve blood flow to the brain, enhance cognitive function, and protect brain cells from damage. Additionally, quinoa is an excellent source of protein, which is essential for repairing and rebuilding damaged tissues, including those in the brain.



4. Amaranth: is a rich source of protein, fiber, and micronutrients, such as iron, zinc, and magnesium that are essential for brain function and recovery. Studies have shown that amaranth may help improve cognitive function, memory, and mood, which are often impaired in patients with brain injury or neurological disorders. One of the key benefits of amaranth for brain health is its high content of antioxidants, particularly rutin, and nicotiflorin, which help protect the brain from oxidative stress and inflammation. Another potential benefit of amaranth for brain health is its ability to modulate the gut-brain axis, which is the bidirectional communication system between the gut and the brain. The gut-brain axis plays a crucial role in regulating mood, behavior, and cognition, and is disrupted in many brain conditions, such as depression, anxiety, and autism spectrum disorder. Amaranth contains prebiotic fibers that can stimulate the growth and activity of beneficial gut bacteria, which in turn can produce neurotransmitters and other signaling molecules that can affect brain function and behavior.



5. Wheat Bran: Wheat bran is rich in nutrients that can benefit brain health, including vitamins B1, B2, B6, and E, as well as fiber and minerals such as iron, magnesium, and zinc. These nutrients can help support brain function by improving blood flow to the brain, reducing inflammation, and protecting against oxidative stress. In addition, wheat bran is a rich source of antioxidants, which can help protect the brain against damage caused by free radicals. Free radicals are unstable molecules that can cause damage to cells and tissues in the body, including the brain.



VI. Herbal Teas: Herbal teas have been used for centuries to promote health and wellness. For patients with brain injury or brain conditions, herbal teas can be an effective way to alleviate symptoms and improve overall well-being. Here are 5 herbal teas that can help patients with brain injury or brain conditions:



1. Rooibos Tea: rooibos tea is rich in antioxidants, which have been shown to protect the brain from damage caused by free radicals. Free radicals are unstable molecules that can cause damage to cells, including brain cells. By consuming rooibos tea, patients with brain injury or brain conditions may be able to reduce the risk of further damage to their brain cells.



2. Marshmallow root tea: It has been used for centuries for its numerous health benefits, including its positive effects on brain health. This herb is known for its ability to soothe inflammation, which is a major contributor to cognitive decline. Inflammation in the brain is linked to a variety of neurological disorders, such as Alzheimer's disease, Parkinson's disease, and multiple sclerosis. Marshmallow root tea contains high levels of antioxidants that help to reduce inflammation in the brain, thereby protecting it from damage. Marshmallow

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root tea is also known for its ability to support the nervous system. This herb contains mucilage, which is a type of fiber that helps to support the health of nerve cells. Nerve cells are responsible for transmitting messages throughout the body, including the brain.



3. Horsetail tea: also known as Equisetum arvense, has been used for centuries for its medicinal properties. Recent studies have shown that horsetail tea may have potential benefits for brain injury and brain-related conditions. Horsetail tea also contains silica, a mineral that is essential for healthy brain function. Silica helps support the production of myelin, a substance that protects nerve cells in the brain. Myelin is essential for proper brain function, and can be damaged in cases of brain injury or other neurological conditions.



4. Echinacea tea: also known as purple coneflower tea, has been used for centuries for its medicinal properties. It is believed to have anti-inflammatory, immune-boosting, and anti-viral properties that can help treat a variety of ailments. It contains compounds such as

echinacoside and cichoric acid that have antioxidant properties and can protect the brain from damage caused by free radicals. Additionally, echinacea tea has been found to increase blood flow to the brain, which can help improve cognitive function and memory.





5. Sage Tea: Sage contains compounds that have been shown to have neuroprotective effects, meaning they may help to protect the brain from damage and improve its function. These compounds, known as terpenoids and flavonoids, have been shown to have anti-in-flammatory and antioxidant properties, which can help to reduce inflammation and oxidative stress in the brain.



In conclusion, herbal teas can be a powerful tool for patients with brain injury or brain conditions. They can help to alleviate symptoms, improve overall well-being, and promote relaxation and sleep. By incorporating these herbal teas into their daily routine, patients can experience the many benefits of natural remedies and improve their quality of life.

VII. FRUIT JUICES

Juices are a delicious and healthy way to stay hydrated and energized. But did you know that some fruit juices are particularly good for brain health? Here are 5 fruit juices that can help to boost your cognitive function and protect your brain from damage.



1. Mango juice: Mangoes are rich in vitamins A and C, which are important for brain health and can help to reduce inflammation.



2. Red Grapefruit Juice: Red grapefruit juice is a delicious and refreshing drink that is not only tasty but also beneficial for brain health. The juice is rich in antioxidants, vitamins, and minerals that promote brain health and function. The bioactive compounds in red grapefruit juice, such as vitamin C, flavonoids, and carotenoids, have been shown to protect the brain against oxidative stress, inflammation, and neurodegenerative diseases. Additionally, the high levels of folate and potassium in red grapefruit juice are essential for proper brain development and function. Folate is important for the production of neurotransmitters, which are essential for communication between nerve cells, while potassium helps regulate brain activity and maintain proper fluid balance. In conclusion, adding red grapefruit juice to your diet can be a simple and effective way to promote brain health and enhance cognitive function.



3. Tart cherry: Juice has been found to have numerous health benefits, including improving brain health. The juice is packed with antioxidants, which help to protect the brain from damage caused by free radicals. By consuming tart cherry juice, we can help protect our brain cells from this damage, which can lead to improved cognitive function and memory. In addition to its antioxidant properties, tart cherry juice also contains high levels of melatonin. Melatonin is a hormone that regulates sleep and helps to promote restful sleep. Its high levels of antioxidants, melatonin, and anti-inflammatory properties make it an effective way to protect our brains from damage and promote healthy cognitive function.



4. Pineapple juice: Pineapples contain bromelain, which can help to reduce inflammation and improve cognitive function.



5. Cranberry juice: is a popular beverage that is known for its many health benefits. One of the most interesting potential benefits of cranberry juice is its ability to improve brain health. Research has shown that the antioxidants present in cranberries can help to protect the brain from damage caused by free radicals. One of the compounds in cranberry juice is proanthocyanidin, which has been found to improve memory and attention in both animals and humans. Another compound found in cranberries is quercetin, which has been shown to have anti-inflammatory properties and may help to reduce the risk of cognitive decline.



In conclusion, these 5 fruit juices are not only delicious, but they can also help to boost your brain health. By incorporating these juices into your diet, you can protect your brain from damage, improve cognitive function, and reduce the risk of cognitive decline. So next time you're in the mood for a refreshing drink, reach for one of these brain-boosting fruit juices!

VIII. SOME HERBAL RECIPES

These recipes will help you to recover faster.

- 1. Body Soak Recipe 1
 - 1 drop of sandalwood
 - 1 drop of marjoram
 - 1 drop of frankincense
 - 2 drops of lavender



This combination of essential oils - 1 drop of sandalwood, 1 drop of marjoram, 1 drop of frankincense, and 2 drops of lavender - creates a powerful and soothing body soak. When added to a warm bath, these oils can help calm the mind, ease muscle tension, and nourish the skin. Sandalwood is known for its grounding and meditative properties, while marjoram is a natural muscle relaxant. Frankincense is often used in aromatherapy for its ability to reduce stress and anxiety, and lavender is a well-known oil for promoting relaxation and supporting healthy skin. Together, these oils create a luxurious and therapeutic bath experience that can help promote overall wellness and relaxation. Whether you're looking to unwind after a long day, soothe sore muscles, or simply pamper yourself, this body soak is a wonderful way to care for your mind and body. Just add a few drops of each oil to your bath water, soak for at least 20 minutes, and emerge feeling refreshed, rejuvenated, and relaxed.

- 2. Body Soak Recipe 2
 - 1 drop of sandalwood
 - 1 drop of lavender
 - 1 drop of jasmine
 - 2 drops of eucalyptus



The combination of sandalwood, lavender, jasmine, and eucalyptus in a body soak makes for a luxurious and rejuvenating experience. Each drop of sandalwood adds a warm and woody aroma to the mix, while lavender contributes a calming and relaxing scent. The addition of jasmine oil brings a sweet and floral aroma to the soak, which is perfectly balanced by the refreshing and invigorating scent of eucalyptus. When combined and added to a warm bath, these essential oils work together to create a deeply relaxing and therapeutic experience for both the body and mind. Sandalwood oil is known for its anti-inflammatory and antiseptic properties, making it great for soothing skin irritations and promoting healthy skin. Lavender oil is also great for the skin and is often used to calm anxiety and promote restful sleep. Jasmine oil is known for its aphrodisiac properties and is often used to promote feelings of love and sensuality. Eucalyptus oil is a natural decongestant and is great for clearing the sinuses and easing respiratory issues. Overall, this body soak is a wonderful way to unwind and let go of stress and tension while also promoting overall health and wellness.

3. Body Scrub Recipe

- 3/4cup of Sugar
- 10 drops of Cinnamon Essential Oil
- 10 drops of Ginger Essential Oil
- 5 drops of Sage oil
- 2 tablespoons of Sweet Almond Oil



Body scrubs are an amazing way to pamper yourself and help your skin feel rejuvenated and refreshed. If you're looking for a natural, homemade body scrub, try this recipe that only requires a few simple ingredients. To make it, you will need 3/4 cup of sugar, which

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is a great exfoliant and helps to remove dead skin cells. Additionally, you will need 10 drops of cinnamon essential oil, which can help to improve circulation and provide a warming sensation, 10 drops of ginger essential oil, which is known for its anti-inflammatory properties, and 5 drops of sage oil, which can help to soothe and calm the skin. These essential oils blend together to create a wonderful scent that will leave you feeling relaxed and refreshed. To bind all these ingredients together, you will need 2 tablespoons of sweet almond oil, which is a great moisturizer for the skin. Sweet almond oil is rich in vitamins A, B, and E, which can help to nourish and protect your skin. Mix all of the ingredients together in a bowl until well combined, and your body scrub is ready to use. Gently massage the scrub onto your skin in circular motions, paying special attention to any rough or dry areas. Rinse with warm water and pat dry. Your skin will be left feeling soft, smooth, and moisturized, with a lovely scent that will linger throughout the day.

4. Body Scrub Recipe

- ¾ cup sugar granulated sugar
- 3/4 cup oil olive oil
- 5 drops of lavender oil
- 1-2 drops of chamomile
- 1-2 drops of Basil oil





Body scrubs are an excellent way to exfoliate and rejuvenate your skin. They can be made using a variety of ingredients, but one of the most popular combinations is sugar and oil. To make a basic sugar scrub, all you need is ³/₄ cup of granulated sugar and ³/₄ cup of olive oil. However, to take your scrub to the next level, you can add a few drops of essential oils to create a luxurious spa-like experience. For example, lavender oil is known for its calming properties and can help soothe both your skin and your senses. Adding 5 drops of lavender oil to your sugar scrub can help you unwind and relax after a long day. Chamomile oil is another great option, as it can help reduce inflammation and redness in the skin. Just 1-2 drops of chamomile oil can make a big difference in the overall effectiveness of your scrub. Finally, basil oil is known for its antibacterial and anti-inflammatory properties, making it a great addition to any body scrub. Just a drop or two of basil oil can help promote healthy, clear skin. Overall, with just a few simple ingredients, you can create a luxurious and effective body scrub that will leave your skin feeling soft, smooth, and rejuvenated.

5. Foot Soak Recipe No 1:

- a pot of warm water
- 1/2 cup Epsom salt
- 1/3 cup baking soda
- 1 tsp carrier oil (sweet almond, jojoba, grapeseed oil, etc.)
- 2 drops thyme essential oil
- 2 drops of lavender essential oil
- 1 drop of lemon essential oil





One of the best ways to relax and rejuvenate tired feet is through a foot soak, and there are many foot soak recipes to choose from. One popular recipe involves combining a pot of warm water with Epsom salt, baking soda, carrier oil, and a few drops of essential oils. Epsom salt is known for its ability to soothe sore muscles and reduce inflammation, while baking soda helps to soften the skin and neutralize odors. Carrier oils like sweet almond, jojoba, and grapeseed oil can help to moisturize and nourish the skin. Thyme essential oil has antibacterial and antifungal properties, making it a great addition to any foot soak recipe. Lavender essential oil is known for its calming and relaxing properties, while lemon essential oil can help to brighten and invigorate the skin. Simply mix all of these ingredients together in a pot of warm water, soak your feet for 20-30 minutes, and enjoy the benefits of this luxurious foot soak. Whether you're looking to pamper yourself after a long day or soothe sore feet after a workout, this foot soak recipe is sure to do the trick.

6. Foot Soak Recipe no.2

- 1/2 cup of Epsom salt
- a pot of warm water
- 3 drops of Rosemary essential oil
- 3 drops of Wintergreen essential oil
- 2 drops of Ginger essential oil
- 1 tablespoon of coconut/olive/almond oil



When it comes to self-care, there are few things more relaxing than a warm bath or foot soak. And if you're looking to take your self-care routine to the next level, you might want to consider adding some Epsom salt and essential oils to the mix. This simple body scrub recipe only requires a few ingredients, but it can do wonders for your skin and overall well-being. To make this scrub, you'll need 1/2 cup of Epsom salt, a pot of warm water, 3 drops of Rosemary essential oil, 3 drops of Wintergreen essential oil, 2 drops of Ginger essential oil, and 1 tablespoon of coconut, olive, or almond oil. Start by dissolving the Epsom salt in the warm water, then add the essential oils and carrier oil of your choice. Mix well and apply to your skin, using gentle circular motions to exfoliate and invigorate. Not only will this scrub help to slough off dead skin cells and improve circulation, but the essential oils can also help to alleviate stress, sore muscles, and even headaches. And if you're looking to pamper your feet specifically, try a foot soak instead. Simply fill a basin with warm water, add a handful of Epsom salt and a few drops of your favorite essential oils, and soak your feet for 15-20 minutes. Your feet will thank you for the much-needed TLC, and you'll emerge feeling relaxed, refreshed, and renewed.

7. Frankincense & Licorice herbal tea:

- ¹⁄₂ teaspoon Frankincense
- 1 teaspoon Licorice
- 1 Teaspoon of honey
- A slice of lemon



How to prepare

Add everything to a mug of just-boiled water. Let the tea steep as long as you like, then drink for fast relief.

Nutrition facts

This tea per serving size 16g and amount per calories 25, total fat 0%, cholesterol 0%, sodium 0%, carbohydrate 2%, fiber 1%, sugar 6g, protein 0g, vitamin D 0%, calcium 0%, iron 0%, and potassium 0%.

Ingredients benefits

- Frankincense: has anti-inflammatory effects that may help reduce joint inflammation caused by arthritis, and improves asthma.
- Licorice: is supplement for conditions such as digestive problems, menopausal symptoms, cough, and bacterial and viral infections. Licorice gargles or lozenges have been used to try to prevent or reduce the sore throat.
- Honey: is antidepressant, anticonvulsant and anti-anxiety benefits and honey helps improve cholesterol.
- Lemon: reduce your risk of heart disease, anemia, kidney stones, digestive issues, and cancer, and relieves a sore throat

8. Chamomile Tea:

For a sound sleep, sip a cup an hour or so before bed the flowers has properties that go to work as natural pain-killing agents and also encourage relaxation.

- 1 teabag of chamomile
- 1 cup of boiling water



How to prepare

Add the tea bag to a mug of just-boiled water. Let the tea steep as long as you like, then drink for fast relief.

Nutrition facts

This tea per serving size 252g and amount per calories 0, total fat 0%, cholesterol 0%, sodium 0%, carbohydrate 0%, fiber 0%, sugar 0g, protein 0g, vitamin D 0%, calcium 1%, iron 0%, and potassium 0%.

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Ingredients benefits

- Chamomile tea: Contains anti-inflammatory properties, soothes cold symptoms and is good for your immune system.
- Boiling water: Is the purest method to kill disease-causing germs, including viruses, bacteria, and parasites.

9. Herbal tea for stress

Ingredients

- 1 tsp lemon balm
- 1 tsp holy basil
- 1 tsp eleuthero
- 1 tsp lavender
- 1 tsp chamomile



How to prepare: Mix all ingredients together in a bowl. Boil everything for 10 minutes and let it cool slightly and drink warm.

Nutrition facts: This tea per serving size is 256g and the amount per serving is calories 10, total fat 0%, cholesterol 0%, sodium 10mg, carbohydrate 1g, fiber 2%, sugar 0g, protein 1g, vitamin D 0%, calcium 40mg, iron 7%, and potassium 40 mg. Benefits of Ingredients

- Lemon Balm: reduces stress and anxiety, promotes sleep, improves appetite, and eases pain and discomfort from indigestion.
- Holy Basil: protect against infection and treat wounds. Extracts made from its leaves are thought to boost wound healing speed and strength.
- Eleuthero: Eleuthero increases blood flow to the brain, improving mental functions such as memory and concentration, and also has anti-stress and potential immunity-boosting effects.
- Lavender: improved mood, reduced stress and anxiety, and improved sleep quality.
- Chamomile: reduces moderate to severe symptoms of generalized anxiety disorder and improves heart health, supporting bone health, relieving menstrual pain, and calming anxiety.

10. Carrot, Ginger, and Turmeric Soup

Ingredients:

- 3 Carrots
- 1 White Onion
- 3 cloves garlic minced
- 1-inch piece of fresh ginger finely grated
- 2-inch Piece of fresh Turmeric finely grated
- 4 cups (950ml) Vegetable Stock
- 1 tbsp. Lemon Juice
- Canned Coconut Milk (for topping)
- Black Sesame Seeds (for topping)
- Black pepper



Method:

Dice the onion and carrot into small chunks (no need to be precise as everything will be blended at the end) and grate the ginger and turmeric finely. Heat a small amount of olive oil in the bottom of a large stock pot and sauté the onion for 3 minutes until translucent, then add the minced garlic, turmeric, and ginger and sauté for another 1 minute. Next, add the diced carrot and sauté for another 2 minutes. Then add the vegetable stock and simmer for 20-25 minutes until the carrot is cooked through and soft. Use a stick blender to blend the soup until it is smooth, or transfer it into a standing blender and blend. Stir in the lemon juice, then serve with a swirl of coconut milk and some black sesame seeds.



IX. Exercises for the Second Month:

UPPER EXTREMITY STRETCHING AND EXERCISES

Any kind of brain injury or degenerative brain disease can lead to spasticity when it disrupts areas of your brain that control the natural tension of a muscle (also called muscle tone). Spasticity affects up to 43% in people who've survived an injury within a year of the event. The condition makes muscles stiff and tight.



Exercises for spasticity help enhance neuroplasticity, or the brain's ability to create new pathways to perform functions (like managing muscle tone) as said by the experts. Stretching and moving can also help you avoid some long-term effects of spasticity, such as contracture.

How is it treated?

Treatment options for spasticity depend on the severity of your symptoms after brain injury. Your doctor may also suggest trying a variety of treatments and management strategies at the same time. Here are some common treatment options,

exercise and stretching

- muscle braces
- injections of certain medications, such botulinum toxin (Botox)
- oral medications, such as baclofen, diazepam, tizanidine, and dantrolene sodium
- intrathecal baclofen therapy (ITB)

Precautions to Stretching

- Wear clothing that doesn't restrict movement
- Ensure the room temperature is comfortably cool
- Don't force any movement that causes pain or increases spasticity. Some feeling of stretch is fine; pain, numbness or tingling is not.
- If pain occurs, stop. Check with your health care professional before trying that move again. If discomfort occurs, cut back to a motion that's easier
- Go slowly. All movements should be done evenly, allowing the muscles time to respond to the stretch by relaxing
- Moving quickly can increase spasticity or stiffness. Hold each stretch for 30-40 seconds at the comfortable far end of your range.
- It may help to count out loud or use a timer. Then gently return to the starting position
- Progress as tolerated; the body will vary from day to day. The idea is to increase the range of pain-free motion. Therefore, it's important to distinguish between pain and the feeling of a stretch. Stretch is okay; pain is not.
- A family member or caregiver may be able to help with stretching. It is important that the support partner knows what they are doing when assisting; otherwise, they may be at risk to injuring the patient or themselves
- Avoid overexertion. Include rest periods, and sip cool water to prevent overheating or dehydration.

Passive stretching:

Shoulder Flexion: Supporting the arm and wrist, pick the arm up and over the head to a position behind the ear or as high as tolerated by the patient. Allow them to return to a resting position under control. Over-pressure can be applied to gently increase the stretch as tolerated by the patient.



Shoulder Abduction: Supporting the arm and wrist, pick the arm up and move out to the side towards the head or as high as tolerated by the patient taking additional care with a low tone shoulder. Allow them to return to a resting position under control. Over-pressure can be applied to gently increase the stretch as tolerated by the patient.









Shoulder Rotation: Supporting at the wrist and elbow take the shoulder out to the side, then rotate the arm forwards and backwards within the range available. Take particular care with a low tone shoulder. Over-pressure can be applied to gently increase the stretch as tolerated by the patient.



Elbow Flexion/Extension: Supporting at the wrist and elbow, bend the arm towards the shoulder. Keeping the same position, straighten the arm towards the bed. Over-pressure can be applied to gently increase the stretch as tolerated by the patient.



Elbow Pronation/Supination: Supporting the wrist and elbow, gently turn the hand and wrist outwards and inwards. Over-pressure can be applied to gently increase the stretch as tolerated by the patient.



Wrist Flexion/Extension: Holding the arm and hand, with the wrist straight, bend the hand forwards and backwards. Repeat with the hand in a fist position if possible. Over-pressure can be applied to gently increase the stretch as tolerated by the patient. Allow to return to resting position, applying any splints or supports as advised.







Finger Flexion/Extension: Take each finger and pull gently to touch the base of the finger and then outstretched away from the palm. Can be completed individually or together. Repeat this movement for the thumb. Over-pressure can be applied to gently increase the stretch as tolerated by the patient. Allow to return to resting position, applying any splints or supports as advised.



Self - Stretches:

Shoulder forward arm lift: Interlock your fingers or hold your wrist. With your elbows straight and thumbs facing the ceiling, lift your arms to shoulder height. Slowly lower your arms to starting position.



Shoulder – Rock the baby stretches: Hold your affected arm by supporting the elbow, forearm, and wrist (as if cradling a baby). Slowly move your arms to the side, away from your body, lifting to shoulder height. Repeat this motion in the other direction. Slowly rock your arms side-to-side and keep your body from turning.



Shoulder – Rotation stretches: Interlock your fingers or hold your wrist. With your elbows bent at 90 degrees, keep your affected arm by your side. Slowly guide your affected arm across your stomach. Hold for a few seconds. Slowly guide your forearm away from your body, keeping your elbow at your side.







Elbow stretch: Interlock your fingers or hold your wrist. Start with your arms straight. Slowly bend your elbows. Hold for few seconds. Slowly return to starting position, with elbows straight.



Wrist side to side stretch: Interlock your fingers or clasp your hands together. Slowly bend your wrist to the left, then to the right. Hold for few seconds.



Wrist forward and backward stretch: Interlock your fingers or clasp your hands together. Place your hand on your lap or supported on a table. Slowly bend your wrist towards you, then away from you. Hold for a few seconds.







Thumb and fingers stretch: Place your affected hand on your lap or supported on a table. Place the thumb and index finger of your non-affected hand, between the thumb and index finger of your affected hand. Stretch the thumb and index finger apart.

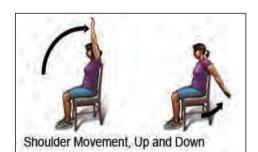


Exercises for strength control:

There are many ways to improve strength and awareness of your weak side. If you have good recovery of movement and can do most basic activities, strengthening can be done by using equipment such as weights. Exercise should be directed toward strengthening specific movements. It is important to select the right exercise for your stage of recovery. If you have doubts about what you can do, stick to the simple basic exercises and work on them until you are confident that you are doing them correctly.

Active range of motion exercises:

Active range of motion is movement of a joint provided entirely by the individual performing the exercise. In this case, there is no outside force aiding in the movement.



Purpose of AROM

- increase strength
- maintain/improve endurance
- promote circulation
- maintain/increase range of motion (ROM)

Flexion: Begin with your arms straight at your side. Keeping your elbow straight, lift one arm up over your head as far as possible.



Abduction: Lift your arm out to the side with your palm up. Keep the elbow straight.



Shoulder rotation: Bring arm close to your body with elbows flexed to 90 degrees. Keeping the elbows fixed, move your hand towards the body then away from the body.



Shoulder extension: Move arm(s) backwards keeping elbows straight. Do not lean forward.



Elbow ROM Exercises:

Flexion and extension: Bend elbow. Straighten your elbow and hold.



Elbow extension: Hold arm above head, elbow pointing to ceiling. Straighten the elbow.

Forearm pronation and supination: Turn palm up. Keep the elbow at the side. Turn palm down and hold.







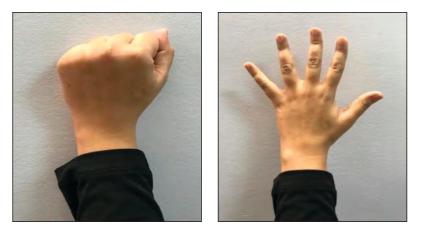
Wrist flexion/extension: Begin with palm down, raise hand up and then bring down.



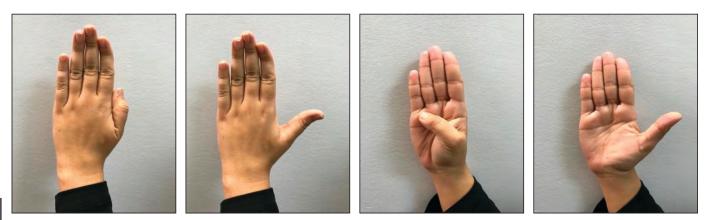
Wrist Ulnar/radial deviation: Make a fist, begin with wrist taking on the sideways.



Fingers flexion/extension: Make a fist and open all the fingers following.



Thumb movements:



Exercise to improve functional ability:

Shoulder shrug: Sit in a chair with your arms by your side. Make sure your back is touching the back of the chair. Raise your shoulders towards your ears for a count of 3. Return to the starting position.



Twisting: Make sure your back is touching the back of the chair for the whole exercise. Clasp your hands together and pull forward until you feel a stretch through your back. Turn your body to the left. Hold for a count of 3. Turn your body to the right. Hold for a count of 3.



Push-ups: Place the table against a wall. Place your hands on the table-palms down or you can place your palms on the edge of the table. Lean your chest towards the table for a count of 5. Push away from the table for a count of 5. If you cannot put your weaker hand flat on the table, place your forearms on the table and then do the push-up.



Object moving: Place the bean bag in your weaker hand. Pick the bean bag up and move it to the 1st dot. Drop the bean bag on the dot and place your weaker hand in your lap. Then reach with your weaker hand to pick up the bean bag, placing it on dot 2 and following the others until you have dropped the bean bag on each dot. Once you have finished the arc, start at dot 5 and retrace your steps.



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Ball rolling with no partner: Place your hands shoulder width apart. Roll or push the ball back and forth between your hands. Continue until you have caught the ball with your weaker hand. If this is easy for you try rolling the ball faster or placing your hands further apart. If this is hard for you, use the bean bag and push it towards each hand.



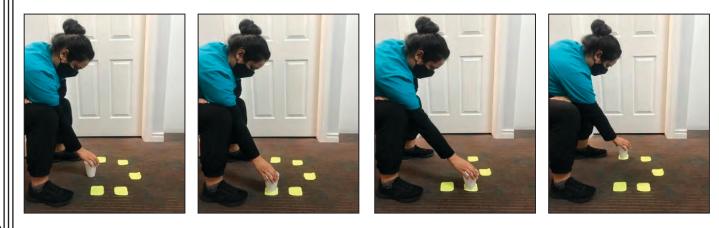
Grip power: Place your weaker arm on the table. Place the gripper in your palm between your knuckles and your thumb pad. Squeeze the gripper as hard as you can for a count of 3. Relax your hand for a count of 3. Remember to focus on opening your hand.



Chair ups: Sit in a chair with both your hands on the arm rests. Using your arms NOT your legs, push your body upwards so that your bottom comes off the chair. Put as much weight as you can through your arms not your legs when pushing up.



Advanced moving the object: Place the target board on the ground about 6" in front of your chair. Place the ball in your weaker hand. Hold on to the armrest with your stronger hand and lean forward. Place the ball on dot 1 - now sit upright with your back against the chair. Lean forward and pick up the ball placing it on dot 2, sit up. Repeat this process for each dot. If at any time you feel dizzy STOP and rest for 1 minute. Try again but if you continue to feel dizzy go to the next exercise.



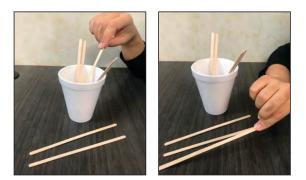
Pouring: Place two cups on the table, one half full of water. Hold the empty cup with your stronger hand, pick up the cup with water with your weaker hand. Pour the water into the empty cup.



Drop and catch the ball: Place the ball in your stronger hand. Raise this arm as high as you can but not higher than your shoulder. Place your weaker hand on the table. Drop the ball and try and catch it with your weaker hand. Then switch and drop the ball with your weaker hand. If it is hard to use the ball, use the bean bag instead.



Picking up the sticks: Put your sticks and a cup on the table. Using your weaker hand, take each stick and place it in the cup. Using your weaker hand, turn the cup upside down and dump them out.



Opening/Closing the jar: Place the jar on the table. Hold the jar with your weaker hand and take off the lid with your stronger hand. Now hold the jar with your stronger hand and take off the lid with your weaker hand.



Squeeze: Place your weaker arm on the table. Place the ball in your hand and squeeze as hard as hard as you can for a count of 5. Relax your hand for a count of 5

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Finger power: Place the putty on the table and roll into a thick rope. Take each finger of your weaker hand, starting with your thumb, and push into the putty. After you finish all 5 fingers, take a 30 second break. Then repeat two more times.



Waiter-cup: Follow the arc pattern you did with the bean bag with a cup, do it 3 times. Repeat the arc pattern with the cup but do it as fast as you can, do it 3 times.



Hanging up the clothes: Place a cup on the table. Using your weaker hand, take each clothespin and clip it on the edge of the cup. Using your weaker hand, take each peg off the cup and place on the table.





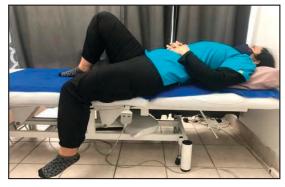


LOWER EXTREMITY STRETCHES AND EXERCISES

Leg rehabilitation is one of the keys to recovering full independence after brain injury. Because every person is different, some of you may need to start with passive techniques such as assistive treadmills, while others might jump straight to active training. Whatever you start with, the only way to fully regain lower limb function is to persevere. Even if you can only move your foot a little, keep activating your muscles.

Contractures can develop anywhere but are particularly apparent in the paretic limbs. As contractures progress, edema and pain may develop and further restrict mobility. LE training activities essentially prepare the patient for the gait. To promote proper gait recovery, no single strategy will suffice. Rather, the most effective treatment uses a combination of approaches.

Lengthening of leg muscles: Stretching your thigh muscles. Keep your heel on the floor.



Now that you know a little more about the basic types of upper limb stroke rehab, we can show you some exercises that will help you regain control of your legs.

To get the most out of these exercises, make sure to practice them every day. The more you can stimulate your muscles, the stronger the neural pathways your brain creates will become. This will, in turn, give you more control over your leg muscles.

Passive movements:

Passive range of motion guidelines:

- Passive range of motion should be done in a lying position.
- Always support the weight of the leg.
- Support above and below the joint you are moving.
- Keep your movements slow and smooth.
- DO NOT force the movement if the muscle or joint is stiff move only as much as the muscle or joint will allow.
- Passive range of motion should be pain-free. If the movement causes pain, STOP, and let your therapist know.

1. Straight leg raises: Gently support the leg under the ankle and knee. Lift the leg off the bed while keeping the knee straight. Hold for a few seconds. Lower leg to the bed.



2. Bending the hip up and down: Place one hand behind the knee. Place the other hand under the heel of the foot. Bend the hip and knee towards the chest. Hold for a few seconds. Slowly lower the leg into a straightened position.

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3. Bending the foot up: Place your hand under the heel of the foot so you can cup the heel. Let the footrest on your forearm. Hold the leg just below the knee to keep the leg from moving. Apply pressure with your arm against the foot to bend the foot at the ankle. Hold for a few seconds.



4. Turning the foot in: Place your hand around the top of the foot near the toes. Support the leg with your other hand holding above the ankle to prevent the leg from rolling. Apply gentle pressure to turn the foot inward. Hold for a few seconds. Straighten your feet.



5. Turning the foot out: Place your hand around the top of the foot, near the toes. Support the leg with your other hand holding above the ankle to prevent the leg from rolling. Apply gentle pressure to turn the foot outward. Hold for a few seconds. Straighten your feet.



Active movements of leg:

Hip:

Flexion: Sit on a chair with feet on the ground. Raise your leg up keeping the knees bend and then bring down.



Abduction/Adduction: Begin with knees bend and take your hip outside. Knee away from the body. Slowly, bring it back.



Internal rotation: Sit on a chair with feet on the ground. Bring your foot out, away from the ankle of the opposite side with keeping the knees bent.



External rotation: Bring your foot inwards to the opposite ankle.



Knee:

Flexion/Extension: Sit on a chair with knees bent. Slide your heel towards the chair for flexion. Straighten your leg from the knee to the original position for extension.



Ankle:

Plantarflexion/Dorsiflexion: Raise your toes. Raise your heel.



Strengthening exercises:

Inner range quadriceps: Place a pillow or rolled-up towel under a knee in a bent position. Lift the heel off the bed and straighten the knee. Do not lift the entire leg away from support.



Bridging: Keep the patient's knees bent up and pressed together. Ask the patient to lift the affected buttock up. This exercise helps the patient to move from side to side and move up and down.



Knee rolling: Lie on the back with knees bent up and pressed together. Bring both knees from side to side, keeping both feet on the bed.



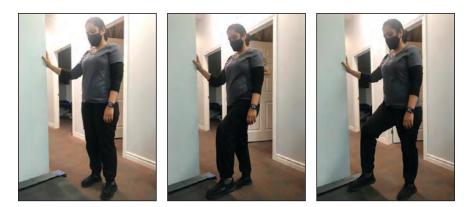
Hip Abduction: Support the patient below their knee and heel. Bring the whole leg out to the side. Hold for up to 30 seconds, or as the patient's tolerance permits. Keep the patient's foot pointed upwards. Allow the patient to bring their leg out if they have the strength.



Weight shifting in standing: Stand with legs apart, feet level. Shift the hips to the left then right. Keep the hips and knees straight.



Knee control exercises: Stand with a chair or support on the wall on the unaffected side for support. Practice stepping up onto a block with the unaffected leg. Keep the affected hip and knee straight and affected heel on the floor.



Heel Slides: Lying on your back, slide the affected foot up toward your buttocks, bending your knee and then slide back down until the knee is straight.



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Mini Squats: Holding to a stable surface, partially bend the knees as if sitting back on a chair and then stand back up straight.



Hamstring curl in standing: Holding to a stable surface, try to bring the heel of the affected leg toward the buttocks and back down.



Hip Abduction in standing: Holding to a stable surface, lift the affected leg out to the side and back down.



Hip extension in standing: Holding to a stable surface, raise the affected leg backwards and back down (attempting to keep the knee straight).



Functional Exercises:

Kicking a ball: stand opposite a wall holding. Kick the ball against the wall with your weaker feet.



Picking up objects from the floor: 10 objects on the floor, from your weaker side. Pick up the objects one by one, if possible, with your hemiplegic hand. Place them on the table.



X. ROLE OF MASSAGE THERAPY IN REHABILITATION

Massage therapy has long been used to ease pain, provide comfort, and address cognitive and neurological issues. Currently, there are many massage therapists who focus their practice solely on headaches, sports-related concussions and other TBI-related issues. Massage therapy helps people who have suffered from TBI by easing the pain of a traumatic injury, providing comfort, flushing the lymphatic system to enable healing and by helping with neurological issues.

Effectiveness of massage therapy:

Individuals who have suffered a brain injury are often unable to exercise and can remain inactive for long periods. This can cause issues with metabolic waste products that needs to be removed from the body. Massage therapy can help, ensuring that the flow of blood and lymph fluid is improved. Using massage therapy, it's possible to improve and potentially partially restore the proper joint function. This can include everything from the spine to the extremities. Brain injuries can also cause chronic tension in certain areas of the body. To improve this, oxygen flow needs to be improved in these areas. This provides healthy nutrients to the body and awakens sensory receptors and ensures that the muscles become more active. People who suffer from a brain injury often experience painful muscle spasms. This can be recurring and unfortunately common throughout even a short time. This is typically caused by scar tissue that hasn't healed fully and instead becomes stretched or broken. A deep muscle massage can help here, particularly if a person has inactive muscles due to this type of injury.

Preparation of client for massage:

- Ask your client to sit in the middle of the table, then lay on her side, using the arms to support her weight while lying down.
- Have her turn onto her stomach with her face in the face cradle. Place a bolster under the ankles and adjust the drape.
- Deep, rhythmic breathing by you, the therapist, throughout the massage will help you maintain your focus, connect with your client, and facilitate the flow of the massage.

Techniques for different areas of the body:

Back (Approximately 20 Minutes)

- Draw the drape down to the low back/pelvic crest. Place your right hand at the inferior angle of the scapula; cross your left arm over your right arm and place your left hand on the flesh of the buttocks (gluteal) with fingers pointing laterally.
- Perform a myofascial stretch. Switch. Standing at the head of the table, place your fists on either side of, but not directly on, the spine between the shoulder blades; apply direct pressure for a deep tissue sculpting move (a technique per-formed without lubricant).
- Ask your client to inhale and exhale; allow your fists to slide down as the muscle "melts." Change to the ulnar side of the fist before your wrists "break over" and finally to the palmar surface of your hand at the pelvis; hold traction.
- With lubricant, effleurage the entire back several times. Effleurage on one side of the spine (over the paraspinals) with one hand placed on top of your other hand; fol- low with the same movement on the other side.
- Move to the opposite side of the table; with the palmar surface of the hand, glide later- ally and medially over the right quadratus lumborum. This last stroke draws your hand over to the left quadratus lumborum and puts you in position to work on the left quad- ratus lumborum. Repeat all movements.
- Step to the right side of the table; with fingertips, glide up the paraspinals and over the latissimus attachment.
- Thumb glide intercostals and up under the scapula. Stepping to the head of the table on the client's left side, use one or both thumbs to glide and friction rhomboid attachments along the vertebral border of the scapula and spine, thumb glide rhomboids.
- Stepping back to the client's right side, carefully remove the client's hand from the low back and lower the arm off the table. Compress the infraspinatus; use thumb glide and friction. Glide your hands down the arm to pick it up and place it back on the table.
- Step to the head and palpate the supraspinatus. Step to the left side of the client and petrissage the right upper trapezius, flowing over to the left. Perform the same movements on the left shoulder.
- Effleurage the upper trapezius and neck. Use the back of loose fists to further effleurage. Hold pressure points across the trapezius (using both thumbs, simultaneously hold points nearest the neck, move laterally and hold two more points, move laterally, and hold two more points, then move back medially on the same points). Effleurage. Glide the palmar surface of your left hand up the neck to the occipital ridge and hold the ridge.
- With your right thumb, glide from occiput to levator attachment at the scapulae; move laterally and glide from the occiput over the trapezius. The palmar surface of your right-hand glides over the shoulder and up the back of the neck to the occipital ridge to position your left thumb to perform the same movements on the left side of the neck. Effleurage the trapezius and neck.
- Some clients will roll over on the side that is easiest for them, so make sure you stand and hold the drape up on the side that will not exacerbate an injury. For example, in the prone position, if the client has a right arm or shoulder injury, stand on his right side, and ask him to roll over toward you using his left arm.

UPPER BACK





MIDDLE BACK























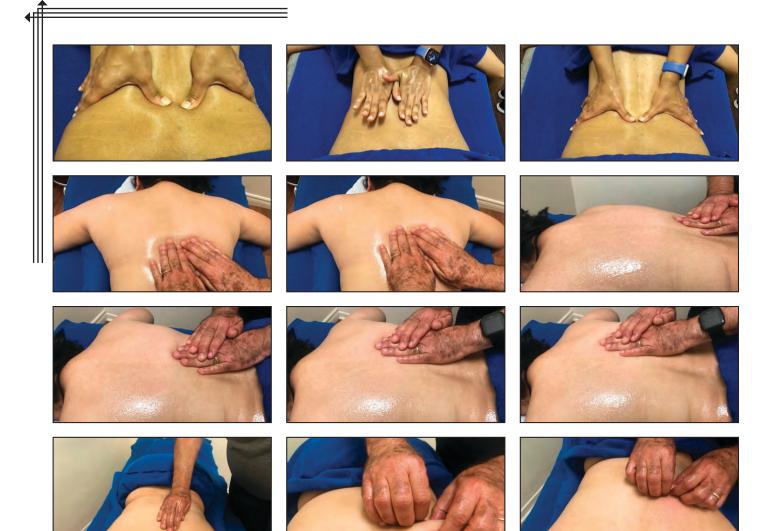








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LOWER BACK







Feet and Legs (Approximately 10 Minutes)

- Gently place your hands on the client's heels to initiate touch. Undrape the client's right leg.
- Effleurage the entire foot and leg several times to spread the lubricant and warm the tissues.
- Work on the bottoms of the feet using alternating one-handed petrissage, horizontal and vertical thumb glides, and static pressure on acupressure points (six points: starting under the middle toe, move one thumb's width down toward the heel for point 2, move one thumb's width down for point 3, move one thumb's width over toward the arch for point 4, move one thumb's width up for point 5, move one thumb's width up to just under the big toe for point 6).
- Use compression/broadening on the heels, followed by sliding the ulnar side of the hand back and forth over the Achilles heel.
- Follow with hand over hand up the gastrocnemius and soleus. Petrissage the center, medial, and lateral aspects of the lower leg from ankle to just below the knee; follow with thumb glides, stopping to friction any spasms. Use compression/broadening and effleurage to complete the lower leg.
- Use the back of a loose fist (with pressure) to glide from just above the knee to the buttock. Petrissage the center, medial, and lateral aspects of the thigh, follow with thumb glides, and friction all the hamstring muscles. Follow with compression/ broadening and wringing.
- To finish, effleurage the entire foot and leg once again, giving it a gentle rocking motion (with no pressure) coming down the leg. Cover with the drape.
- Begin again at the feet. Undrape the left leg. As with the prone position, all strokes are performed with venous flow. Effleurage the foot and leg to spread lubricant and warm the tissues.
- Use alternating one-handed petrissage and thumb glides between the metatarsals of the foot.
- Use finger circles around the ankles followed by hand over hand up the shin. There is not much to work on the lower leg; petrissage the medial gastrocnemius again and thumb glide up the tibialis anterior muscle.
- Effleurage up the thigh; petrissage the thigh. Use the back of alternating loose fists to glide from above the knee to the hip, covering each of the quadriceps, adductors, and IT band. Follow with thumb glides and stripping, compression/broadening, or wringing. Effleurage up the entire leg with a gentle rocking motion (no pressure) coming down. Move to the right leg and repeat the movements.

FOOT



































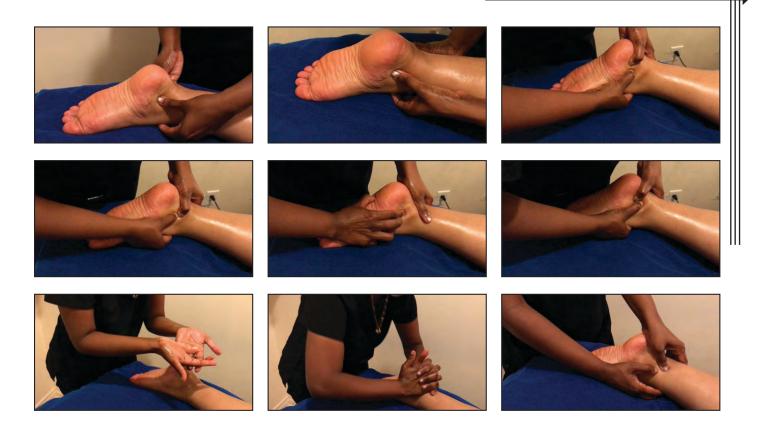




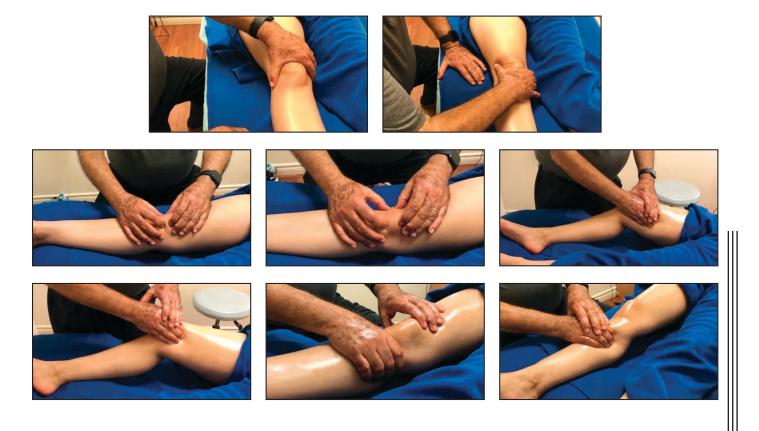








KNEE AND LOWER LEG













































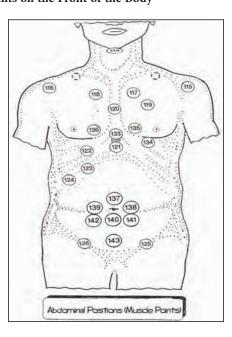








XI. CUPPING THERAPY How to Locate Hijama points / Cupping Points on the Front of the Body



115 & 116, under the ends of the clavicle (collar bone) from the outside and on the shoulders.

117 & 118, under the clavicle (collar bone) from the inside, on the chest.

119, the heart, under the middle of the left clavicle (collar bone) using four fingers of the patient himself.

120, sternum bone (breastplate), in the middle of the chest.

121, first part of the stomach directly under the chest bone.

122, 123 & 124, above the liver, right of the belly.

125 & 126, between the belly and the thigh near the pubic hair area for involuntary urination, infertility...etc.

133, almost 2cm above the stomach mouth and near the end of the chest bone.

134, under the left breast.

135 & 136, 5cm away from the breast nipple from the inside for the lungs.

137, 138, 139 & 140, above, right, left and under the umbilicus (belly button).

141, & 142, Right and left of 140.

143, above the bladder.

Cupping Points on the Back of the Body

1, the shoulder, the seventh vertebra (bone of spine) of the neck.

4 & 5, the air door between the two ribs upwards in the branching of the tracheae (main windpipe) and the bronchus (smaller windpipe).

6, the gall bladder at the peripheral of the right rib toward the spine.

7 & 8, on the stomach place at the middle of the back opposite to the stomach on the spinal sides.

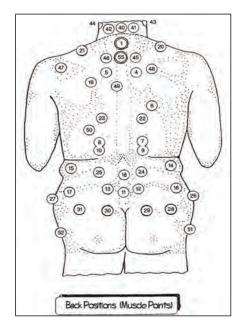
9 & 10, the kidney centre under 7 & 8 on the middle of the back.

11, lumbar vertebrae - a prominent bone at the lower back of the vertebra column.

12 & 13, on the sides of 11, slightly upward, 5cm away from the spine.

14, 15, 16 & 17, the colon, almost on the colon corners from the back and 18 of the middle of the spine.

19, the heart, opposite to the heart from the back and almost on the left rib side.



20 & 21, tonsils triangle that lies in the area between the neck and the shoulder with a slight bending to the back.

22 & 23, above the pancreas gland under the rib end.

24 & 25, at the beginning of the lower half of the back.

26 & 27, bilaterally at the sides of the iliac bone.

28, 29, 30 & 31, at the upper part of the buttocks.

32, on the middle of the head.

33, on the right part of the hair near the forehead or the hair line.

34 & 35, the right and left part of the brain (at the temporal sides of the brain) as well as the occipital bone.

36, the cerebellum (occipital) prominent bone on the head.

37 & 38, nearly 3cm above the ears.

39, prominent occipital bone, the deep area at the back of the head where cupping is prohibited, except in necessary cases.

40, in the middle of the back of the neck.

41 & 42, on the back of the head to the right and the left.

43 & 44, the sides of the neck.

45 & 46, nearly 3cm above the air trachea (4-5).

47, on the left shoulder in addition to the heart.

48, on the right rib from upward, complementary to the gall bladder knot.

49, the immunity area from the back, between the two scapulae (shoulder blades).

50, 6cm slightly above 8, for stomach ulcers.

55, almost 3cm under the shoulder.

How to Locate Hijama Points / Cupping Points on the Face & Head

2 & 3, the area between the ears, the back of the head where hair grows or on the sides of the neck.

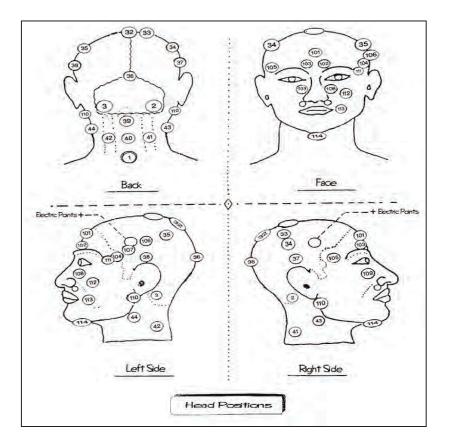
101, the forehead on the place of worship in praying and it is better not to repeat it.

102 & 103, above the eyebrows from the inner part of the nasal sinuses.

104 & 105, on both sides of the brows and slightly upward for headaches and sight.

106, almost 6cm above the left ear to help give up smoking.

107, nearly 4cm above the cheeks to assist in speech.



Hijama points on the head and face

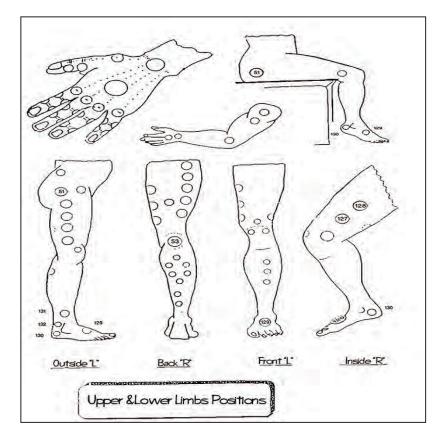
108 & 109, on the sides of the nose for nasal sinuses.

110, under the ear from the right and left.

111, 112 & 113, near the eye and the cheek and near the lip to treat the fifth and sixth nerve.

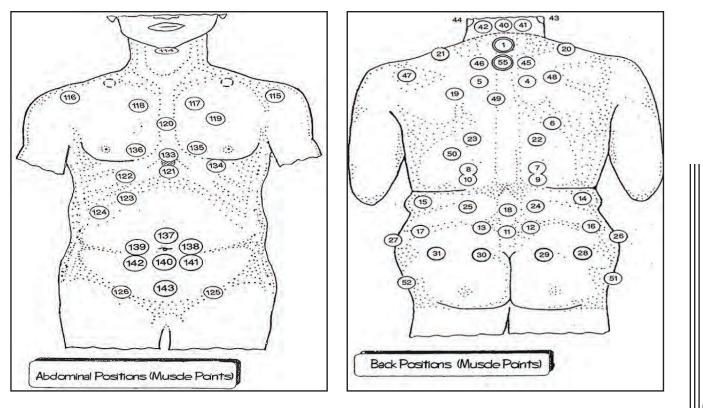
114, under the chin and it has many benefits.

Hijama Points on Legs & Hands



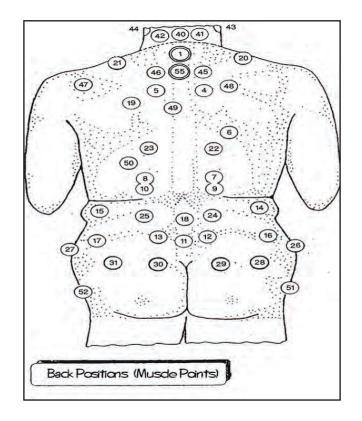
Hijama Points for Abdominal Pain

Standard Wet Points - 1, 55, 7, 8 Standard Dry Points - 137, 138, 139, 140



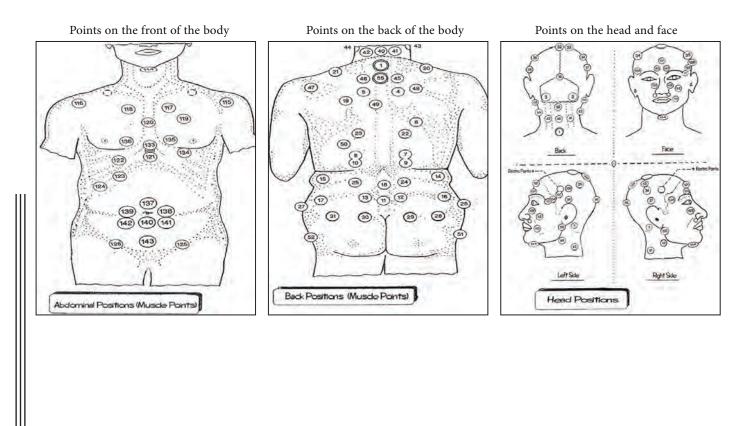
Hijama Points for Blood Circulation

Standard Wet Points - 1, 55, 11



Hijama Points for Rheumatoid Arthritis

Standard Wet Points - 1, 55, 120, 49, 36



Points for Cupping	Disease/ Condition
.Points 1, 55, in addition to all areas of pain	(Rheumatism (painful Joints
Points 1, 55, 11, 12, 13 and cupping around the knee & may add .53 & 54	Osteoarthritis of knee
Points 1, 55, 130, the right and left side of the heel and you may .add 9, 10	(Oedema (swollen tissue due to build up of fluid
Points 1, 55, 11, 12, 26, 51 and places of pain on the leg	Sciatic pain (nerve pain from the buttock which goes down (the right leg
Points 1, 55, 11, 13, 27, 52 and places of pain on the leg	(Sciatic pain (for the left leg
Points 1, 55 and cupping on both sides of the spine and places .of pain	Back pain
Points 1, 55, 40, 20, 21 and places of pain.	Neck/ Shoulder Pain
.Points 1, 55, 28, 29, 30, 31, 121 and places of pain	(Gout (swollen joints due to excess uric acid
.Points 1, 55, 120, 49	Immune system deficiency
Points 1, 55, 11 and ten cups on both sides of the spine from the .top to the bottom	Poor blood circulation
Points 1, 55, 7, 8 and dry cupping on 137, 138, 139, 140, as well .as dry cupping on the back opposite to the pain	Abdominal pain
Points 1, 55, 4, 5, 120, 49, 115, 116, 9, 10, 117, 118, 135, 136, .and two cups below both knees	Chronic coughs and lung diseases
.Points 1, 55, 2, 3, 11, 12, 13, 101, 32, 6, 48, 9, 10, 7, 8	(Hypertension (high blood pressure
Points 1, 55, 49, 120, 129, 6, 7, 8, 11 and cupping on the affected .areas	Skin diseases
Points 1, 55, 2, 3	Headaches
Points 104, 105, 36	Eye strain
.Points 1, 55, 102, 103, 108, 109, 36, 14 and on the hair line	Nasal sinuses
Points 28, 29, 30 and 31	Constipation
.Points 1, 55, 2, 3, 106 and area of pain	Migraine (severe headache associated with nausea and visual .(disturbance
.Points 1, 55, 6, 11, 12, 13, 120, 49, 125, 126, 143, 41, 42	Infertility
.Points 1, 55, 41, 42	Thyroid disease
Points 1, 55, 28, 29, 30, 31, 132 and around the veins (but NOT .(over the veins	.Varicose veins (enlarged, unsightly superficial veins) on the legs
.Points 1, 55, 20, 21, 37, 38 and behind the ear	Weakness of hearing and inflammation of hearing nerve, tinni- (tus (ringing sensation in ears
Points 1, 55 (dry cupping on 125, 126, 137, 138, 139, 140, 141, .(142, and 143	Menstruation (period) problems
Points 1, 55, 9, 10, 41, 42 and dry cupping on 137,140	Renal (kidney) disease

Benefits of Hijama or Cupping Therapy

1. Faster pain management

Hijama can help with arthritis, lower back pain, and other problems. It can also treat headaches, migraines, tooth pain, muscular pain, sciatica, and other types of pain. Cupping treatment can lower pain intensity by affecting pain transmission communication routes from a stimulating location to the brain and backward.

2. Cupping improves blood circulation

The suction from the cups enhances circulation in the region where they are positioned. The increased blood flow to that location can aid in relieving muscular tension and promoting cell healing. Cupping increases the blood flow, which helps to decrease the appearance of cellulite.

3. Cure chronic fatigue syndrome

4. Lung disease reliever

Cupping is an excellent therapy for respiratory illnesses such as persistent cough, asthma, bronchitis, and pleurisy.

5. Cupping stimulates the release of toxins from tissues

Toxins are removed from your blood by organs. However, the contemporary way of living overloads your body with poisons. Cupping stimulates your body's ability to eliminate toxins. Concentrated blood flow benefits your body by removing toxins through the lymphatic system.

6. Cupping can help with varicose and spider veins

Varicose veins appear as bulging, blue veins immediately beneath the skin, most often on the legs and feet. They occur when the vein's internal valves fail to adequately pump blood from the muscle back to the heart, causing the blood to coagulate and the veins to twist and bulge. Cupping aids in the restoration of renewed blood flow and oxygen to troubled regions.

7. Relieving digestive problems

If your digestion is disrupted, you may experience congestion, stagnation, and water and fat accumulation. This condition can cause bloating and constipation. Cupping treatment can be used to relieve digestive system blockage and encourage free flow.

What are the different methods of Dry Cupping therapy?

Dry cupping procedure commonly involves creating a small area of low air pressure next to the skin. The cups can be various shapes including balls or bells, and may range in size from 1 to 3 inches across the opening. Plastic and glass are the most common materials used today, replacing the horn, bronze and bamboo cups used in earlier times.



The low air pressure required may be created by heating the cup or the air inside it with an open flame, then placing it against the skin. As the air inside the cups cools, it contracts and draws the skin slightly inside. More recently, vacuum can be created with a mechanical suction pump acting through a valve located at the top of the cup.

In dry cupping therapy there are three methods commonly used by cupping therapists:

- Fire cupping
- Suction Pump cups
- Rubber (silicone) cups

1. Fire Cupping

Cups can be applied with the use of heat, known as fire cupping. In this method, a flame is introduced to the empty space of the cup to consume the oxygen. The cup is then quickly applied to the body creating a vacuum.



2. Suction Pump Cups

Some cups use a pump that sucks the air out of the cup after it is placed on the skin. This allows for more precise control over the amount of suction.



3. Rubber Silicone Cups

A more modern invention is rubber cups. These are first squeezed to remove the empty space and then applied to the body. The advantage of these lies in the flexibility of the edges. This allows the application of cups to bony and irregular areas.



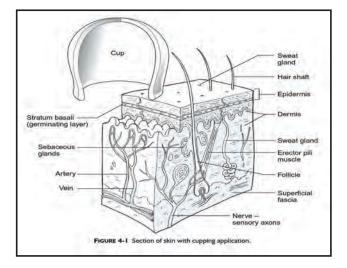
Duration of Cupping: The cups are left in place anywhere from 5 to 20 minutes depending on the nature of the individual's condition.

Cupping therapy methods

Apart from dry cupping and wet cupping, there are some other methods of cupping being practiced world wide. In total there are 10 methods of cupping designed to help the practitioner choose the most appropriate cupping method for the patient. These methods are:

- Weak (light) cupping
- Medium cupping

- Strong cupping
- Moving cupping
- Light moving cupping
- Needle cupping
- Empty (flash) cupping
- Full (bleeding/wet) cupping
- Herbal cupping
- Water cupping



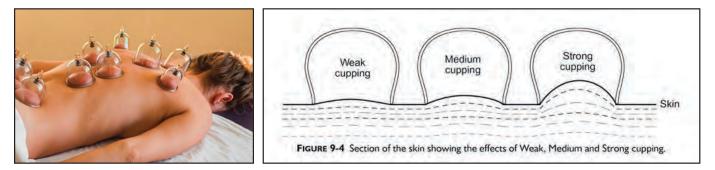
Weak (light) Cupping: It is employed when blood and energy are sluggish or stagnant. The intention is move the stagnation and at the same time tonifies the weak energy. The key factor in deciding when to apply weak cupping is the present energetic state of the patient. Evaluation of the pulse and tongue should tell all point to weakness. The amount of flesh drawn into the cup should be minimal and hardly raised. This method can be applied to almost anywhere on the body and may cause a slight reddening of the skin. Weak cupping is the gentlest method of all cupping and is particularly suitable for debilitated adults, elderly patients and young children, especially those under 7 years of age.



Medium cupping: This is the most frequently used method on patients. This method can safely be administered to children over 7 years of age. With medium cupping, suction is firmer pulling the skin well into the cup creating a slight redness. Medium cupping can safely be applied anywhere on the body.



Strong cupping: This is one of the most draining techniques. Therefore before deciding on this method, the practitioner must ensure the suitability of the patient. Pulse and tongue diagnosis should emphasize excess or fullness. This method may sometimes leave the patient feeling tired or drained. A strong vacuum need to be produced, giving a strong pulling sensation of the skin inside the cup. Because of the strong nature of the pulling action, the skin will quickly turn red and shortly turn purple inside the cup and possible erythema in the skin surrounding the cup. When using the strong cupping method for the first time, the mark is inevitable and can take 15-20 days to disappear completely. The cupping time should be short i.e. 5-10 minutes during the first session which can increase up to 20 minutes during later applications.



Moving / massage cupping: Prior to applying the cups, oil is administered to the skin to facilitate smooth movements of the cups, giving a massage effect.



Light-moving cupping: Light-moving cupping is practiced mainly on patients with relatively full/excessive energy. It is useful and considered the only safe method in the management of lymphatic drainage as well as being the exclusive cupping method in the management of cellulite complaints. During the application, slight pinkish cupping marks appear on the skin, normally following the direction and movement of the cup. At no time should deep, dark red cupping marks be seen.

Needle/ acupuncture cupping: Acupuncture and cupping are done in the same place, by applying acupuncture needle first then cup-

ping over the needle.



Empty (flash) cupping: Empty cupping is also called flash cupping for its speed during application. This is actually medium to strong cupping applied rapidly i.e. the cups remain in place for a very short period (less 30 seconds). It is used to stimulate and move blood and energy in the weak and frail. The short duration is enough to stimulate physis and move blood but not enough to drain the patient. This can be repeated for between 5-10 minutes.

Full (bleeding/wet) cupping: This is the most favored and practiced method by practitioners. It is used in the treatment of a sudden increase in blood pressure, high fevers, blood stasis and in discharging pus from boils. This method is often combined with strong cupping. After the initial strong cupping, the cup is removed and slight superficial lacerations are made. The cup is then placed back on the site. Most of the blood in the cup will be semi-coagulated and therefore still quite fluid. Before removing the cup, the practitioner should wear disposable surgical gloves on both hands. Remove the cups gentle. It is not recommended to bleed the patient more than once a month and not to draw more than 100ml of blood at any one time.



Water cupping: This is one of the least used and practiced cupping methods. The technique involves filling a glass or bamboo cup one-third full with warm water and employing the cupping process quickly. Hold the cup close to the patient with one hand, bring it close to the point to be cupped and insert the burning cotton wool, swiftly and simultaneously turning the cup onto the skin. This method is said to disperse energy and resolve phlegm making it very beneficial for asthma, particularly in children. There is usually no mark left with this method.



Medicinal / herbal cupping: Bamboo cups and herbs prescribed by traditional medicine practitioner were immersed in water, boiled and simmered for 30 minutes before applying. The steam from boiled herbs will provide vacuum as well as therapeutic effect. The cups are then placed on the patient in the traditional way using (Flame). The herbs are absorbed into the bamboo cups, which in turn transfer their healing properties to the patient. Cups can be left on for 10-20 minutes





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THIRD MONTH PROTOCOL:

I. SUPPLEMENTS

1. Lion's Mane Mushroom: also known as Hericium erinaceus, has been gaining popularity in recent years for its potential benefits in treating brain injury and degenerative brain conditions. It contains bioactive compounds such as erinacines and hericenones that have been shown to stimulate nerve growth factor (NGF) synthesis in the brain. NGF is a protein that plays a crucial role in the growth, maintenance, and survival of neurons in the brain. Lion's mane mushroom may improve cognitive function in individuals with mild cognitive impairment (MCI), a condition that often precedes Alzheimer's disease. Lion's mane mushroom may also have neuroprotective effects and may help in the treatment of brain injury. Animal studies have found that lion's mane mushroom extract reduced brain inflammation and oxidative stress, both of which are known to contribute to brain injury.



2. Vitamin C: Vitamin C acts as a potent antioxidant and helps protect the brain cells from oxidative stress and damage caused by free radicals. It also plays a crucial role in the synthesis of neurotransmitters, which are essential for the proper functioning of the brain. Research has shown that vitamin C can help improve cognitive function and memory in people suffering from brain injuries, such as concussions and traumatic brain injuries. It can also help reduce inflammation in the brain, which is a common cause of brain damage and degenerative brain conditions like Alzheimer's disease and Parkinson's disease. Studies have shown that vitamin C can help prevent cognitive decline and improve brain function in older adults. Vitamin C is also beneficial for people suffering from depression and anxiety, which are common mental health conditions that can affect brain function. It helps reduce stress levels and improves mood, which can have a positive impact on brain health. Vitamin C can also help improve sleep quality, which is essential for proper brain function and overall health.



3. Creatine Monohydrate: This supplement helps increase energy levels in the brain, which can improve cognitive function. Creatine Monohydrate supplementation may be beneficial for those with degenerative brain conditions such as Parkinson's disease. One study found that creatine supplementation helped improve motor function and quality of life in patients with Parkinson's disease. Creatine Monohydrate works by providing energy to cells, including brain cells. This energy boost may help improve cognitive function and protect the brain from damage caused by injury or disease. Additionally, Creatine Monohydrate has been shown to have antioxidant properties, which can help protect the brain from oxidative stress and damage caused by free radicals.



4. Collagen: Collagen may be beneficial for the brain due to its ability to support the growth and repair of tissues throughout the body. One way that collagen may benefit brain injury is by reducing inflammation. Inflammation is a natural response to injury or damage, but when it becomes excessive, it can cause further damage to the surrounding tissues. Collagen may help to reduce inflammation by promoting the growth of new blood vessels and reducing oxidative stress. These effects may help to protect the brain from further damage and promote healing.



Collagen may also be beneficial for degenerative brain conditions such as Alzheimer's disease. Studies have shown that collagen can help to improve cognitive function and memory in individuals with mild cognitive impairment. Collagen may also help to reduce the formation of beta-amyloid plaques, which are a hallmark of Alzheimer's disease. By reducing the formation of these plaques, collagen may help to slow the progression of the disease and improve overall brain health. In addition to its benefits for brain injury and degenerative brain conditions, collagen may also have other benefits for overall brain health. For example, collagen is a rich source of amino acids that are essential for the production of neurotransmitters. Neurotransmitters are chemicals in the brain that are responsible for communication between neurons. By providing the body with the building blocks needed to produce these neurotransmitters, collagen may help to improve brain function and overall cognitive health.

5. Ginkgo Biloba and Ginseng: Gingko Biloba is a tree native to China that has been shown to improve blood circulation in the brain, leading to increased oxygen and nutrient delivery to brain cells. This increased blood flow has been linked to improved memory, attention, and focus. It also contains compounds called flavonoids and terpenoids that act as antioxidants, protecting brain cells from damage caused by free radicals. Ginseng, on the other hand, is a root that is commonly used in traditional Chinese medicine to treat a variety of ailments, including fatigue, cognitive decline, and stress. It contains compounds called ginsenosides that have been shown to have neuroprotective properties, helping to prevent damage to brain cells and improving cognitive function. It has also been shown to reduce inflammation in the brain, which can contribute to cognitive decline.



6. Turmeric: Recent studies have shown that it may also be beneficial for brain injury and degenerative brain conditions. One of the active compounds in turmeric is called curcumin, which has anti-inflammatory and antioxidant effects. These properties make turmeric a potential treatment for brain injuries, such as concussions, by reducing inflammation and promoting the growth of new brain cells. Additionally, research has shown that turmeric may be able to slow the progression of Alzheimer's disease by reducing the buildup of amyloid plaques in the brain and reducing inflammation. It may also improve memory and cognitive function in people with mild cognitive impairment.



II. ESSENTIAL OILS

1. Patchouli oil: Patchouli oil has a grounding effect that can help to improve focus and concentration.



2. Vetiver oil: Vetiver oil has a grounding effect that can help to improve focus and concentration. It is also known to have calming properties that can reduce stress and anxiety.



3. Bergamot oil: Bergamot oil has a refreshing and uplifting effect that can help to improve mood and cognitive function.



4. Eucalyptus oil: Eucalyptus oil has a refreshing and invigorating effect that can help to improve cognitive function and mental clarity.



5. Ginger oil: Ginger oil has a warming and stimulating effect that can help to improve focus and concentration.



III. SEEDS:

The brain is a vital organ in the body that requires nutrients to function optimally. Eating a balanced diet that includes foods that are rich in essential vitamins and minerals can help improve brain function. Seeds are a great source of essential nutrients that can help boost brain function. Here are 5 seeds that are good for the brain:

1. Coriander Seeds: Coriander seeds are a great source of iron, which is essential for brain function.



2. Fennel Seeds: Fennel seeds are a great source of magnesium, which helps improve brain function.



3. Fenugreek Seeds: Fenugreek seeds are a great source of choline, which is essential for brain function.



4. Caraway Seeds: Caraway seeds are an excellent source of calcium, which is vital for maintaining healthy brain function.



5. Cardamom Seeds: Cardamom seeds are a great source of antioxidants, which help protect the brain from oxidative stress.



In conclusion, seeds are a great source of essential nutrients that can help improve brain function. Including these seeds in your diet can help boost brain health and improve cognitive function.

IV. HERBS THAT ARE GOOD FOR THE BRAIN:

There are a variety of herbs that have been used for centuries to enhance brain function and improve overall cognitive health. Here are 5 of the best herbs that are good for the brain:

1. Skull cap – This herb is known for its ability to reduce anxiety and stress levels, which can have a positive impact on brain health. The herb is also known to improve cognitive function and memory retention. Reduces anxiety and stress levels. Also promotes the growth of new brain cells and improves communication between brain cells.



2. Holy Basil - Holy Basil is an herb that has been shown to reduce stress and improve cognitive function.



3. Lion's Mane - This mushroom has been shown to have neuroprotective properties and may improve cognitive function.



4. Lemon Balm - Lemon Balm is an herb that has been used to improve memory and reduce anxiety.



5. Turmeric - Turmeric is a spice that has been shown to have anti-inflammatory properties and may improve brain function.



V. FOODS THAT YOU NEED TO INCLUDE IN YOUR DIET

Discover the delicious foods that can boost your brain power and enhance your cognitive abilities! Incorporating these brain-boosting foods into your diet is a smart move towards a healthier and happier you. So, let's dive into these amazing foods that can help you maintain a sharp mind and improve your overall brain function!

1. Oats

Studies suggest that oats can be particularly beneficial for patients who suffer from brain injury or brain conditions. Oats are rich in fiber and other essential nutrients that are known to improve brain health. In particular, the beta-glucan in oats has been shown to have a positive effect on cognitive function and memory. Furthermore, oats are a great source of energy and can help patients recover from brain injuries faster. For patients with brain injuries or conditions such as stroke, the brain requires a lot of energy to heal and repair itself. Oats are an excellent source of carbohydrates, which can be broken down



into glucose, the primary fuel for the brain. Consuming oats regularly can help provide the brain with the energy it needs to function optimally and recover from injuries. Moreover, oats contain antioxidants that can help reduce inflammation in the brain, which is often associated with brain injuries.

2. Vegetable Soup

Vegetable soup is an excellent option for patients with brain injury or brain conditions. These types of illnesses require a specific type of diet that is high in nutrients and easy to digest. Vegetable soup provides a great source of vitamins and minerals, including vitamin C, vitamin K, and potassium, which are essential for brain health and function. Additionally, the soup is easy to digest, making it perfect for patients who may have difficulty with chewing or swallowing.



3. Vegan Pea Protein

Brain injuries and brain conditions, such as stroke or Parkinson's disease, can lead to significant muscle loss and weakness. This is due to a decrease in the body's ability to synthesize proteins, which are necessary for muscle growth and repair. Vegan pea protein is a complete protein source, meaning it contains all nine essential amino acids that the body cannot produce on its own. This makes it an ideal protein source for patients with brain injury or conditions, as it can help prevent muscle loss and promote muscle growth. Moreover, vegan pea protein is also rich in iron, which is essential for the production of hemoglobin, a protein in red blood cells that carries oxygen throughout the body. Brain injuries and brain conditions can often lead to anemia, which is a decrease in the number of red blood cells in the body. By consuming vegan pea protein, patients can increase their iron intake and potentially reduce the risk of anemia. Another benefit of vegan pea protein is its anti-inflammatory properties. Brain injuries and brain conditions often lead to inflammation in the brain, which can worsen symptoms and slow down the healing process. Vegan pea protein contains bioactive peptides that have been shown to have anti-inflammatory effects, which can help reduce inflammation in the brain and promote healing.



4. Bee Pearl Smoothie Powder

This smoothie is made from a combination of bee bread, propolis (beeswax), and royal jelly which are considered a superfood due to their high nutrient content. Bee pollen contains vitamins, minerals, enzymes, and antioxidants that are beneficial for brain health. It is

believed that bee pollen can improve cognitive function, memory, and mood, which are often affected in individuals with brain injury or brain conditions. Moreover, bee pollen is also known to reduce inflammation, which is a common factor in brain injuries and conditions such as Alzheimer's and Parkinson's disease.



One of the other benefits of beeswax smoothie powder is that it is completely natural and safe to use. Unlike many prescription medications used to treat brain injuries and conditions, beeswax smoothie powder does not have any harmful side effects. It is also easy to use, as it can be mixed into smoothies or other beverages.

5. Birch Chaga Truffles

Birch chaga is a type of mushroom that grows on birch trees in cold regions. It has been used for centuries in traditional medicine to treat a wide range of ailments, including inflammation, infections, and digestive issues. Recent studies have shown that birch chaga contains substances that can help support brain health and function. These substances, such as betulinic acid, have been shown to have neuroprotective properties that can help reduce inflammation and oxidative stress in the brain. For patients with brain injuries or conditions, such as traumatic brain injury (TBI), stroke, Alzheimer's disease, or Parkinson's disease, birch chaga truffles may be a valuable addition to their treatment regimen. Inflammation and oxidative stress are common factors in these conditions, and birch chaga's neuroprotective properties may help mitigate their effects.



Additionally, birch chaga contains polysaccharides that can help boost the immune system, which may be beneficial for patients with brain injuries or conditions that can weaken the immune system. Birch Chaga truffles are easy to incorporate into a patient's diet. They can be consumed as a supplement in capsule form, or added to food and beverages. The truffles have a slightly bitter taste, but many people find them palatable when mixed with other foods or beverages. Birch Chaga truffles are also low in calories and fat, making them a healthy addition to any diet.

VI. HERBAL TEAS:

Herbal teas have been used for centuries to promote health and wellness. For patients with brain injury or brain conditions, herbal teas can be an effective way to alleviate symptoms and improve overall well-being. Here are 5 herbal teas that can help patients with brain injury or brain conditions:

1. Eucalyptus Tea: Contains a compound called cineole, which has been studied for its effects on brain injury and brain-related conditions such as dementia and Alzheimer's disease. Cineole has been found to have anti-inflammatory and antioxidant properties, which can help reduce inflammation and oxidative stress in the brain. This is important because inflammation and oxidative stress are common factors in brain injury and brain-related conditions.



2. Elderberries Tea: The tea is made from the dried flowers and berries of the elderberry plant, which is rich in antioxidants and anti-inflammatory compounds. These compounds help to protect the brain from damage caused by free radicals and inflammation. The anti-inflammatory properties of elderberries tea can help to reduce inflammation in the brain, which can be a major contributor to brain injury.



3. Alfalfa Tea: Alfalfa tea is believed to have properties that can help improve brain function and aid in recovery from brain injury. One of the primary benefits of alfalfa tea is its high content of vitamins and minerals. It is an excellent source of vitamins A, C, and K, as well as calcium, iron, and potassium. These nutrients are essential for maintaining healthy brain function and supporting the recovery process after a brain injury.



4. Burdock Root Tea: This tea is made from the roots of the burdock plant, which has been used for medicinal purposes for centuries. The burdock root contains compounds that have anti-inflammatory and antioxidant properties, which are believed to be beneficial for brain health. Burdock root tea is a natural and potentially beneficial way to support brain health and improve cognitive function.



5. Chamomile Flowers Tea: Chamomile flowers have been used for centuries as a natural remedy to treat various health conditions, including brain-related disorders. Chamomile flowers tea is a popular beverage that is known for its calming and relaxing properties.



Chamomile flowers contain several compounds that have been found to have a positive effect on the brain. For instance, chamomile flowers contain flavonoids, which are antioxidants that help protect the brain from damage caused by free radicals.

In conclusion, herbal teas can be a powerful tool for patients with brain injury or brain conditions. They can help to alleviate symptoms, improve overall well-being, and promote relaxation and sleep. By incorporating these herbal teas into their daily routine, patients can experience the many benefits of natural remedies and improve their quality of life.

VII FRUIT JUICES:

Juices are a delicious and healthy way to stay hydrated and energized. But did you know that some fruit juices are particularly good for brain health? Here are 5 fruit juices that can help to boost your cognitive function and protect your brain from damage.

1. Bartlett pear: This juice has been gaining popularity for its numerous health benefits, particularly for brain health. This juice is known for its high concentration of antioxidants, vitamins, and minerals that are essential for optimal brain function. The antioxidants in Bartlett pear juice help to combat oxidative stress in the brain, which can lead to the development of various neurological disorders such as Alzheimer's disease, Parkinson's disease, and multiple sclerosis. Additionally, Bartlett pear juice is a rich source of vitamin C, which is essential for the production of neurotransmitters, the chemicals that transmit signals between nerve cells in the brain.



2. Watermelon juice: Watermelons are high in antioxidants and can help to protect the brain from damage and improve cognitive function.



3. Carrot juice: Carrots are rich in beta-carotene, which is important for brain health and can help to protect against cognitive decline.



4. Tomato juice: Tomatoes are high in lycopene, which can help to protect the brain from damage and improve cognitive function.



5. Kale Juice: Kale is a leafy green vegetable that is packed with essential nutrients, vitamins, and minerals that support the brain's function and overall health. Among these nutrients, kale is particularly rich in antioxidants such as Vitamin C, beta-carotene, and flavonoids. These antioxidants help to protect the brain from oxidative stress, which can lead to cognitive decline and memory loss. In conclusion, these 5 juices are not only delicious, but they can also help to boost your brain health. By incorporating these juices into



your diet, you can protect your brain from damage, improve cognitive function, and reduce the risk of cognitive decline. So next time you're in the mood for a refreshing drink, reach for one of these brain-boosting juices!

VIII. HERBAL RECIPES:

- 1. Body soak recipe 1
 - cup of Epsom salt
 - 1 tablespoon of coconut oil
 - 9 drops of eucalyptus essential oil
 - 9 drops of cardamom essential oil
 - 5 drops of tea tree essential oil
 - 5 drops of peppermint essential oil



This recipe for a body soak combines several ingredients that have been known to have soothing and therapeutic benefits. Epsom salt, which is made up of magnesium sulfate crystals, has long been used as a natural remedy for sore muscles, inflammation, and stress relief. Coconut oil is a moisturizing agent that can help to nourish and hydrate the skin. Eucalyptus essential oil is known for its ability to clear the sinuses, soothe respiratory issues, and reduce inflammation. Cardamom essential oil has a warming effect that can help to ease muscle tension and improve circulation. Tea tree essential oil is a powerful antiseptic that can help to fight off bacteria and fungi on the skin. Peppermint essential oil has a cooling effect that can provide relief from headaches and muscle pain. When combined, these ingredients create a body soak that can help to ease muscle tension and pain, clear the sinuses, and provide overall relaxation and rejuvenation. To use this recipe, simply mix the ingredients together in a warm bath and soak for at least 20 minutes.

2. Body Soak Recipe 2

- 8 Drops of Lavender
- 6 Drops of Frankincense
- 6 Drops of Lemon
- 4 Drops Peppermint
- 4 Drops Chamomile
- 4 Drop Eucalyptus
- 4 Drop Tea Tree
- 1 cup of Epsom salt



Body soaks are an excellent way to unwind after a long day or week. They help to soothe sore muscles, relax the mind, and improve overall well-being. One popular body soak recipe involves using a blend of essential oils and Epsom salt. To create this recipe, you will need 8 drops of lavender, 6 drops of frankincense, 6 drops of lemon, 4 drops of peppermint, 4 drops of chamomile, 4 drops of eucalyptus, and 4 drops of tea tree. Mix these essential oils together and then add them to a cup of Epsom salt. Stir the mixture until the oils are evenly distributed throughout the salt. To use the body soak, simply add the mixture to a warm bath and soak in it for at least 20 minutes. The lavender oil helps to calm the mind and reduce stress, while frankincense oil is known for its anti-inflammatory properties. Lemon oil is a natural detoxifier, and peppermint oil can help to ease muscle pain. Chamomile oil is excellent for soothing skin irritations, and eucalyptus oil can help to clear sinuses. Finally, tea tree oil is a potent antifungal and antibacterial agent, making it great for preventing and treating skin infections. Overall, this body soak recipe is an excellent way to pamper yourself and improve your overall health and well-being.

3. Foot Soak Recipe 1

- ¹/₂ cup of Epsom salt
- 8 Drops of Eucalyptus
- 8 Drops of Lemon

- 6 Drops Cinnamon Bark
- 6 Drops Rosemary



Foot soak recipes have gained immense popularity in recent times, owing to their relaxing and rejuvenating benefits. If you are looking for a perfect way to unwind after a long day, a foot soak recipe made of ½ cup of Epsom salt, 8 drops of Eucalyptus, 8 drops of Lemon, 6 drops of Cinnamon Bark, and 6 drops of Rosemary is an excellent option to consider. Epsom salt is a popular ingredient in foot soak recipes, known for its ability to soothe sore and tired feet. The addition of Eucalyptus in the recipe helps to relieve inflammation and pain, while Lemon provides a refreshing and uplifting aroma. Cinnamon bark, on the other hand, is known for its antibacterial properties, while Rosemary has a calming and relaxing effect on the mind and body. Together, these ingredients create a perfect blend that not only relaxes your feet but also provides an array of health benefits. To make the soak, simply dissolve ½ cup of Epsom salt in warm water and add the essential oils. Soak your feet in the mixture for 15-20 minutes and feel the tension and stress melt away. This foot soak recipe is an excellent way to pamper yourself and take care of your feet, which are often neglected despite being one of the most hardworking parts of our body.

4. Foot Soak Recipe 2

- 7-8 drops Eucalyptus oil
- 7-8 drops Rosemary essential oil
- 5 drops Tea tree oil
- 5 drops Peppermint oil
- 3 drops Lavender oil
- ¹/₂ cup Epsom salt



A foot soak with essential oils can be an incredibly relaxing and rejuvenating experience. This particular recipe calls for a mix of Eucalyptus, Rosemary, Tea Tree, Peppermint, and Lavender oils, all of which have their own unique benefits. Eucalyptus oil is known for its anti-inflammatory properties and can help relieve muscle pain and stiffness. Rosemary oil has a stimulating effect on the mind and body and can help improve circulation. Tea Tree oil is a powerful antiseptic and can help soothe and heal skin irritations. Peppermint oil is invigorating and cooling, making it great for tired and achy feet. Finally, Lavender oil is known for its calming and relaxing properties, which can help reduce stress and anxiety. To create this foot soak, you'll need to gather all of the necessary ingredients, including 7-8 drops of Eucalyptus oil, 7-8 drops of Rosemary essential oil, 5 drops of Tea Tree oil, 5 drops of Peppermint oil, 3 drops of Lavender oil, and ½ cup of Epsom salt. Epsom salt is a great addition to any foot soak as it can help soothe tired and achy muscles, reduce inflammation, and soften skin. To prepare the soak, fill a basin or tub with warm water and add the Epsom salt and essential oils. Stir the water to ensure that the salts and oils are evenly distributed. Then, simply soak your feet in the mixture for 15-20 minutes, allowing the oils and salts to work their magic. You can also use this time to relax and unwind, reading a book or listening to music. Overall, a foot soak with essential oils and Epsom salt can be a wonderful way to pamper yourself and take care of your feet. It's also a great way to incorporate aromatherapy into your self-care routine and enjoy the many benefits that essential oils have to offer. So go ahead and give this foot soak a try – your feet will thank you!

5. Body Scrub Recipe:

- 1/2 cup of coffee grounds
- 1/4 cup of brown sugar
- 1/4 cup of coconut oil
- 6 drops eucalyptus
- 6 drops peppermint
- 2 drops rosemary



This recipe is for a homemade body scrub that combines coffee grounds, brown sugar, coconut oil, and essential oils to create a luxurious exfoliating experience. Coffee grounds are known for their ability to reduce inflammation and improve circulation, making them an excellent choice for a body scrub. Brown sugar is a gentle exfoliant that helps to remove dead skin cells and reveal smoother, softer skin. Coconut oil is rich in moisturizing properties, leaving your skin feeling hydrated and nourished. The addition of eucalyptus, peppermint, and rosemary essential oils not only adds a refreshing aroma but also has numerous benefits for the skin. Eucalyptus oil is known for its anti-inflammatory properties, peppermint oil has a cooling effect on the skin, and rosemary oil has been shown to stimulate blood flow. Combining all of these ingredients creates a body scrub that not only exfoliates but also provides numerous benefits for the skin. To use, simply apply the mixture to damp skin in circular motions and rinse off with warm water. Your skin will feel invigorated and silky smooth. This DIY body scrub is an excellent choice for those looking for a natural alternative to store-bought products and is easy to make with ingredients that you likely already have in your pantry.

6. Body Scrub Recipe

- 1 cup Epsom salts
- 1 cup raw sugar
- 1/2 cup coconut oil
- 10 Sandalwood essential oil
- 10 Peppermint essential oil



This topic refers to a recipe for a body scrub that includes a variety of ingredients. The first ingredient listed is 1 cup of Epsom salts. Epsom salts are a common ingredient in bath products and are known for their ability to soothe sore muscles and reduce inflammation. The second ingredient is 1 cup of raw sugar, which is often used in exfoliating scrubs because it helps to remove dead skin cells and leaves skin feeling smooth and soft. The third ingredient is 1/2 cup of coconut oil, which is a popular ingredient in skincare products because it is moisturizing and helps to protect the skin from damage. Finally, 10 drops of Sandalwood essential oil and 10 drops of Peppermint essential oil are added to the mixture. These essential oils are known for their relaxing and invigorating properties, respectively, and can help to create a spa-like experience when used in a body scrub. Overall, this recipe for a body scrub is a great way to pamper yourself and improve the health and appearance of your skin.

7. Recipe 1 Inhalation through a diffuser:

- 3 drops of Eucalyptus
- 3 drops of Rosemary
- 3 drops Frankincense
- 2 drops of Lemon



The combination of 3 drops of Eucalyptus, 3 drops of Rosemary, 3 drops of Frankincense, and 2 drops of Lemon for inhalation through a diffuser is an excellent choice for those who are looking to improve their respiratory health, focus, and mental clarity. Eucalyptus is known for its anti-inflammatory and decongestant properties, making it an excellent choice for those who suffer from respiratory issues such as asthma, bronchitis, or allergies. The scent of Rosemary has been shown to improve cognitive function, reduce stress, and improve mood. Frankincense is a powerful essential oil that has been used for centuries for its ability to enhance spiritual awareness, promote relaxation, and reduce inflammation. Lastly, Lemon is known for its uplifting and invigorating scent, helping to improve

overall mood and energy levels. When combined, these essential oils create a powerful blend that can help to clear the mind, improve respiratory health, and promote a sense of well-being. Diffusing this blend is an easy and effective way to experience the benefits of these essential oils, creating a relaxing and rejuvenating atmosphere in any room. Whether you are looking to improve your respiratory health, increase focus and mental clarity, or simply create a more relaxed and peaceful environment in your home or office, the combination of Eucalyptus, Rosemary, Frankincense, and Lemon is an excellent choice.

8. Recipe 2 Inhalation through a diffuser

- 3 drops of Eucalyptus
- 2 drops of Rosemary
- 2 drops of Orange
- 2 drops of Clove
- 2 drops of Cinnamon



Essential oils have long been used for their therapeutic benefits, and the combination of eucalyptus, rosemary, orange, clove, and cinnamon is a powerful blend that can be inhaled through a diffuser for maximum effect. Eucalyptus oil is known for its ability to open up the airways and relieve congestion, making it an ideal choice for those suffering from respiratory issues. Rosemary oil is believed to improve memory and concentration, making it a great oil to use during study or work sessions. Orange oil has a calming effect on the mind and body, while also possessing anti-inflammatory properties. Clove oil is a natural pain reliever and can help alleviate headaches and muscle pain. Finally, cinnamon oil has antibacterial properties and can help boost the immune system. When combined and inhaled through a diffuser, these essential oils work together to create a powerful blend that can improve respiratory health, boost focus and concentration, relieve pain, and support overall health and wellness. The use of a diffuser allows for easy and convenient inhalation of these oils, making it a great option for those who want to experience their benefits without having to apply them topically.

9. Recipe for Massage Oil Mix:

- 5 drops of Sandalwood
- 3 drops of Tea Tree
- 2 drops Eucalyptus (for children, swap Eucalyptus with Lavender oil)
- 10 ml of carrier oil (Coconut oil)



The combination of Sandalwood, Tea Tree, and Eucalyptus (or Lavender for children) essential oils with carrier oil, such as Coconut oil, is an effective blend for massage therapy. Sandalwood oil is known for its calming and grounding properties that can help ease stress and anxiety. Meanwhile, Tea Tree oil is a powerful antibacterial and anti-inflammatory agent that can aid in treating skin conditions like acne and eczema. Eucalyptus oil, on the other hand, has a refreshing and invigorating scent that can relieve muscle pain and improve respiratory health. For children, Lavender oil is a suitable substitute for Eucalyptus oil, as it is gentle and has a calming effect that can promote relaxation and sleep. Carrier oil, such as Coconut oil, is used to dilute the essential oils to make them safe for topical application. It is also a nourishing oil that can moisturize the skin and provide additional benefits. When combined, this essential oil blend with carrier oil can provide a relaxing and rejuvenating massage experience, while also offering various health benefits.

10. Recipe for Massage Oil Mix:

- 5 drops of Thyme
- 4 drops of clove
- 10 mL olive oil/ coconut/ almond oil



The combination of Thyme and Clove with carrier oils such as Olive, Coconut, or Almond oil is a perfect recipe for a soothing and relaxing massage. Thyme oil contains thymol, a potent antiseptic and anti-inflammatory agent that helps to relieve pain, reduce inflammation, and soothe sore muscles. Clove oil, on the other hand, is rich in eugenol, a natural analgesic, and antiseptic that helps to alleviate pain, reduce swelling, and fight off infections. When mixed in the right proportion with carrier oils, these oils can penetrate deep into the muscles and joints, providing long-lasting relief from pain and stiffness. To make this massage oil, simply mix 5 drops of Thyme oil with 4 drops of Clove oil and 10 mL of your preferred carrier oil. Gently massage the oil onto the affected area, using circular motions and applying gentle pressure. This massage oil is perfect for people who suffer from muscle pain, arthritis, or joint stiffness, as it can help to improve mobility, reduce pain, and promote relaxation.

IX. MAT AND BALANCE ACTIVITIES

Mat activities are one of the most important parts of rehabilitation program of brain injury patients. Mat exercises are included in the treatment program as soon as weight bearing is permitted.

- Mat activities are given to:
 - Facilitate balance
 - Promote stability
 - Mobilize and strengthen the trunk and limb.
 - Train for functional activities

Different mat activities taught to patients are:

1. Rolling: For rolling to be effective, patient is required to learn to move the head, neck, upper limb, lower limb, and trunk in a balanced manner. Rolling is needed to improve bed mobility and to change position independently. Initially, rolling is taught to patient in the mat but afterwards patient gets the confidence to perform it over bed.

Action to role prone from supine position:

• Patient lies in supine position.

- Patient flexes his head, neck, and right shoulder.
- Right arm is moved towards left side to create momentum.
- The momentum of arm is transferred to trunk and lower limb.
- The lower half of body will be rolled to prone position. Flexion of hip and knee will facilitate the roll.
- Patient takes his right shoulder at the back side by putting weight on left forearm and thus, weight is distributed on both upper limbs.Patient lies prone.
- Rolling to prone can also be assisted by use of pillows under one side of pelvis or scapula if needed. The number of pillows is decreased in progression.





2. Prone on elbows: This position on mat activities given to the patient facilitates head and neck control and strengthens the serratus anterior and other scapular muscles. This position is very important to train the patient to gain stability is quadruped and sitting positions.

Action of the patient:

- Patient lies prone and places his elbows close to the trunk.
- Elbows are pushed down while lifting the head and upper trunk.
- Now, patient brings the elbow to the level of shoulder and body weight is shifted through elbows.



3. Prone on hands: This position is given to paraplegic patients because it requires strong pectoralis major and deltoid muscles. However, this activity is not appropriate to all paraplegics as excessive lordosis is produced. Prone on-hand position is required to gain postural alignment during standing, ambulation and standing from the floor with use of orthosis and crutches. Position of the hands in this position is same as the standard push-up position except that arm are laterally rotated.



4. Quadruped position: In this position, trunk lies horizontal to ground and body weight is distributed over both hands and both knees. It is also called as prone kneeling position. This is the first sequence in mat activities that allow weight bearing through hips. This position helps to initiate control of muscle of lower trunk and hips. This position can either be achieved from prone on elbow position or from long sitting position.





To assume position from long sitting:

Patient in long sitting.

vBody weight is bore through hands with extended elbows by rotating the trunk.

- Now, from the side sitting position patient moves into quadruped position by shifting weight over hands.
- Position is achieved by available trunk strength and momentum from head and shoulders.

5. Kneeling: It is more difficultly to manage for patient with instability at trunk. In this position, center gravity is raised, base is small and gravity falls near the edge of the base. This position is important to promote upright balance control. This position is best achieved from quadruped position.

Action of patient

- Patient moves the hand backward towards knees in prone kneeling position.
- Knees are further flexed.
- Pelvis is dropped towards heel.
- Patient sits on heel.
- Patient supports his upper limb on therapist's shoulder.
- By thrusting with his upper limb and extending his neck and hips, patient rises himself to kneeling position.









6. Four-Point Kneeling: Kneel on the ground and place your hands flat on the ground so you are in a crawling stance. Contract the pelvic floor and raise one leg while lifting the opposite arm. Hold for a few seconds, and return to the starting position, repeating with the opposite arm and leg. Repeat for two to three sets of 10 reps each.

What are balance exercises?

Balance exercises are exercises which are prescribed by a physiotherapist to challenge your balance to improve it. Balance exercises will challenge the body's vestibular system and the musculoskeletal system. They aim to improve the body's ability to maintain posture and center of gravity and to improve muscle reaction time and joint proprioception (the body's ability to recognize where the joints and limbs

Benefits of Balance Exercises?

If you have balance problems a physiotherapy assessment and balance exercises program will be of benefit to you. There are many benefits of balance exercises which are:

- Improved static balance
- Improved dynamic balance
- Improved joint proprioception
- Improved muscle reaction time increasing the body's ability to react to balance challenging situations
- Reduced risk of falls
- Improved function tasks can be done outside of the base of support without risk
- Decreased muscle compensation muscles can become overactive to compensate for poor balance
- Improved mobility improved balance will increase mobility and improve energy efficiency.

Weight Shifts: Stand with your feet hip-width apart and your weight equally distributed on both legs. Shift your weight to your right side, then lift your left foot off the floor. Hold the position if you can maintain good form, up to 30 seconds. Return to the starting position and repeat on the other side. As your balance improves, increase the number of repetitions.







Single leg standing: Stand with your feet hip-width apart and your weight equally distributed on both legs. Place your hands on your hips. Lift your left leg off the floor and bend it back at the knee. Hold the position if you can maintain good form, up to 30 seconds. Return to the starting position and repeat on the other side. As your balance improves, increase the number of repetitions. For variety, reach out with your foot as far as possible without touching the floor. For added challenge, balance on one leg while standing on a pillow or other unstable surface.



Romberg exercise: Stand with a chair in front of you and a wall behind you. If you begin to fall, you may use them for support. Put your feet together and your arms to your side. Hold this position for 30 seconds.



Tandem standing: Stand behind a chair, close enough that you can reach the chair and hold on with both hands if necessary. Place right foot in front of the left foot, directly in front of the other, with the right heel touching the toes of the left foot. Think of placing them as if you were trying to walk on a balance beam. It is perfectly fine to have them slightly separated/staggered if you cannot bring them that close together. Work to balance this stance and hold for 30-45 seconds, keeping head up, tummy tight, and shoulders back. Repeat with the left foot, 30-45 seconds in this stance.







Sidekicks: Stand behind the chair with feet shoulder-width apart. Put head up, keep tummy tight, and shoulders back. Slowly raise your right leg out to the side as high as you feel comfortable. Bring your right leg back down to touch the floor. Perform 10 to 15 kicks on each leg. Repeat with left leg.



Standing calf raise: Stand behind a chair with feet shoulder-width apart, touching back of the chair with fingers. Head up, tummy tight, and shoulders back. Come up onto the ball of your foot or your toes as far as you feel comfortable. Hold for 30-45 seconds and work on balancing in this position. Repeat 10 to 15 times.



Narrow stance reaches: Begin with your feet together, or as close together as possible while still feeling stable. Stand tall and reach forward with one hand while holding onto a counter or solid surface for safety. Alternate arms as you reach forward. Progress by reaching with both hands' forwards. You can make this more challenging by reaching out to the side or in varying directions. Perform 10 reaches with each arm. Repeat 2 to 3 times.

Standing Marches: Stand with your feet shoulder-width apart. While holding onto a counter or firm surface, raise one leg in a marching motion. Alternate legs. Focus on smooth, controlled movements and keep your body tall to avoid leaning side to side. You can make this exercise more difficult by letting go of the counter or chair. Perform 20 marches (10 on each leg). Repeat 2 to 3 times.







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Step up: Use a step, preferably with a railing or near a wall, to use as support. Step up with your right leg. Bring your left leg up to join it. Step down again and return to the start position.



X. WALKING TRAINING

Walking after brain injury is a common goal during rehabilitation. Many people who survive brain injury are eager to improve their gait, or manner of walking, to regain independence and feel confident with the activities of daily living again.

To help you regain the ability to walk on your own, this guide will explain some of the challenges when learning to walk again after a brain injury (TBI) along with the steps you can take to improve your walking.

Why does a brain injury affect walking skills?

- Balance problems. Between 30% and 65% of traumatic brain injury survivors struggle with balance issues. These can stem from a range of issues including muscle weakness, inner ear damage, and damage to the cerebellum, which plays a role in maintaining balance.
- Primary motor cortex damage. The primary motor cortex is also responsible for the coordination of muscle movements. If a brain injury damages this area, then activities that involve multiple muscle groups, like walking, can become impaired.
- Spasticity. When a brain injury disrupts the connection between the brain and the muscles, the brain can no longer send signals to the muscles telling them when to contract. As a result, spasticity and muscle tightness can set in, making walking after brain injury much more difficult.

Safety considerations while walking:

- Perform hand hygiene.
- Check room for additional precautions.
- Introduce yourself to patient.
- Confirm patient ID using two patient identifiers (e.g., name and date of birth).
- Listen and attend to patient cues.
- Ensure patient's privacy and dignity.
- Assess ABCCS/suction/oxygen/safety.
- Ensure tubes and attachments are properly placed prior to the procedure to prevent accidental removal.
- Bring in required assistive devices and proper footwear.

Use of assistive devices: Assistive devices (ADs) are given to them who have difficulty maintaining balance while walking or difficulty lifting a limb die to brain injury. Other factors that would necessitate use of an AD include loss of perception in the legs, weakness of the legs, pain while walking, and a history of falling, among other indications. Different ADs are assigned to each patient depending on the severity of their condition and how much extra support they need provided.

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The following list presents the ADs from the least supportive to the most supportive.

- Straight cane
- Lofstrand crutches
- Axillary crutches
- Walkers
- Parallel Bars

Training using assistive devices:

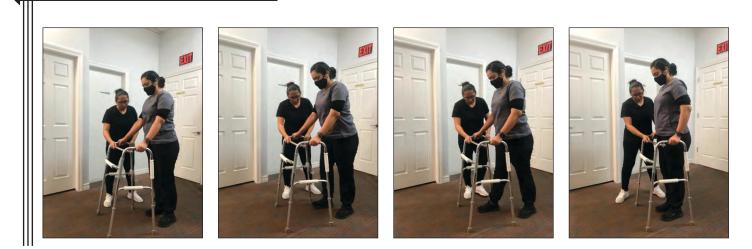
Two-point pattern: It includes the use of two crutches or two canes with one on either side of the body. In this pattern one crutch and the leg opposite to the crutch is moved in unison. For example, if the right crutch is moved forward, then the left leg would advance with it. This gait pattern requires a high level of coordination and balance.





Another two-point gait pattern is the modified two-point pattern. In this pattern there is only use of one crutch or cane on the side opposite to the injured leg, therefore there cannot be any weight bearing restriction but is more used to provide extra balance. For this pattern the AD is move simultaneously with the injured leg.

Three-point pattern: This requires the patient to have good balance as well as strong upper limbs.[1] A walker or two crutches must be used, as this pattern cannot be performed with the use of a single cane. For this pattern the AD is advanced first, then the uninjured leg is moved up as the body is supported on the AD. The uninjured leg can either be brought up to be level with the AD (swing to) or brought up to be ahead of the AD (swing through).



There is also a modified three-point gait pattern which can be used. This pattern also requires the use of 2 crutches or a walker but is slower and more stable than the three-point gait pattern. In the modified pattern, the AD is advanced first, followed by the injured leg that has a PWB status, then finally the uninjured leg is moved up. Similarly, a four-point gait pattern has also been described. Just as in the three-point gait pattern the patient may use a swing to or a swing through pattern.



Walking with one person assistance: Patient should use the aid on the 'good' side if possible. Caregiver should assist on the 'bad' side. Use a thumb-to-thumb grasp – place your right hand (palm up) into the patient's right hand (palm down) (or left hand to left hand depending on patient and space). Use a firm trouser belt or preferably a transfer belt to support the patient. Reach across the patient's back to grasp the belt. Do NOT lift on the belt. Remain at the side of the patient to provide support with your hip and hand grasp. Only move away from the chair once you are sure the patient can balance. Maintain contact and only provide as much support as the patient needs: Raising your hand grasp will allow the patient less support from you. Lowering your hand grasp will enable the patient

to take more support from you (like a cane)



Walking with two-person assistance: Reduce friction and weight by using a transfer belt. Bring the buttocks forward in chair. Positioning client's feet to receive weight (strong foot forward). Lean the upper body forward to raise buttocks off chair. Initiate the body rock to create momentum. Have client assist by pushing on chair with hands. Ensure they are given appropriate time after they come out of the chair to rise to their necessary level to allow them to determine if they are physically able to walk. Let client rise, then reposition yourselves to begin walking. The momentum achieved with the body rock starts, assists the move, and will allow the client to come forward out of the chair (not up). Load to the back of the chair by PUSHING through your end foot and shifting your body weight as a unit to the start foot.



Next, PUSH through your start foot and shift your body weight as a unit to your end foot. The force is relayed through your braced body and arms to the transfer belt allowing the client to come forward out of the chair. Ensure you do not shift up; maintain your shift along a horizontal line throughout the move. Pause and allow the client time to receive their weight and stabilize. Now reposition yourself to walk the client by setting yourself up in a side-to-side stance. Your end foot should adjust with each step-in sync with the client as their front foot moves forward.

XI. Massage Therapy:

Massage is deeply relaxing and stimulates circulation, but it can also serve as a vessel for delivering the health-enhancing properties of herbs. In Ayurveda, the oils we use for massage are just as important as the massage itself, as the blend is designed to sink into the skin and offer support for the presenting concern.



Benefits of Massage

By increasing the flow of blood and lymph throughout the body, self-massage delivers healing nutrients to our joints while relaxing the muscles surrounding them, thereby improving their integrity, flexibility, and range of motion. These benefits are particularly important for maintaining the functionality of joints that suffer a lot of wear and tear over time, such as those in our wrists, ankles, and hips. Self-massage further contributes to the repair of these tissues by increasing the number of circulating red blood cells that keep the tissues supplied with oxygen.

In addition to benefiting our joints and muscles, the positive impact of massage on blood circulation supports lower blood pressure and more efficient heart function. By stimulating the flow of lymph, massage may help not only boost metabolism by efficiently clearing waste products from the body but also reduce the edema associated with pulmonary hypertension. The improved circulation of both blood and lymph further nurtures well-being by invigorating the brain and strengthening the immune system.

Absorption of oil through skin:

The skin is the body's largest organ and anything we apply to our skin is absorbed into our bloodstream. When essential oils are applied to the skin they are absorbed and travel around the body via the bloodstream. In this way they are able to deliver a range of benefits to the body's systems and organs. Absorption is increased by massage, as this increases the circulation in that area of the body. Heat can have a similar effect, allowing better absorption of the molecules in the oil.

Factors that increase skin absorption

- Different factors can affect the absorption of essential oils through the skin. If you massage the area first, it will increase circulation to that area, thereby causing an increase in absorption of essential oils. Heat will likewise increase circulation and thus enhance absorption.
- Some researchers report that essential oils may be more readily absorbed from skin locations with greater concentrations of sweat glands and hair follicles, such as the genitals, head, soles, palms, and armpits.
- Permeability of the skin is a factor in how essential oils are absorbed. Thinner skin, such as behind the ears and the inside of the wrists are very permeable.
- The palms of the hands and feet, armpits and scalp will more readily absorb oil molecules than the arms, legs, belly, back, etc.
- Clean skin pores that are free of dirt also improves absorption.
- Another factor to consider when applying essential oils to our skin is the viscosity of the carrier oil in which the Essential oil is diluted.
- Sweet Almond, Fractionated Coconut Oil, and Grapeseed oil are less viscous and penetrate the skin easily. Thicker oils such as Avocado or Olive Oil do not offer the best penetration level.

Massage with herbal oil

Try doing this routine in the morning for a vital day, or before bed for a more restful sleep.

• Put about 1/2 cup oil in a bottle. Place the bottle of oil in a pan of hot water until the oil is pleasantly warm. You can also try some alternative methods to heating massage oil if you'd prefer.



- Sit or stand comfortably in a warm room, on a towel that you don't mind ruining with oil accumulation.
- Apply oil generously to your entire body.



- Massage the oil into your body, beginning at the extremities and working toward the middle of your body. Use long strokes on the limbs and circular strokes on the joints. Massage the abdomen and chest in broad, clockwise, circular motions. On the abdomen, follow the path of the large intestine, moving up on the right side of the abdomen, then across, then down on the left side.
- Massage the body for 5–20 minutes.
- Let the oil sit for 5-10 minutes. Don't skip this step, as deeper benefits depend on the body's absorption of the oil and herbs. It takes a few minutes for the oil to penetrate to the deepest layers of the skin, and another several minutes for it to penetrate the tissues of the internal body. This is an excellent time to prepare some tea or practice some deep breathing.
- Enjoy a warm bath or shower after the massage. When you get out of the bath, towel dry. Put on a pair of cotton socks to protect your environment from the residual oil on your feet.



Ancient Ayurvedic texts describe the benefits of massage for the whole body, but specifically outline the benefits of applying oil to the scalp, the ears, hand and the feet. Because Ayurveda considers the scalp, the ears, and the feet to be maps representing the whole body, massaging these areas can positively impact other bodily parts and systems.

Scalp Massage

Massaging the scalp and hair with warm oil infused with hair-friendly herbs is a great way to nourish the scalp. It also relaxes your mind and nervous system, promotes sound sleep, and may help your memory too. A warm oil massage, done once a week, has the following benefits:

- It conditions the scalp, helping to prevent flakes and dry, itchy scalp.
- It helps enhance blood circulation in the head and neck area. When the scalp is "tight" from stress, circulation and hair growth are impeded.
- It helps strengthen the roots of the hair and nourishes the hair-shafts, promoting new hair growth and strengthening existing hair.
- The massage helps relax the scalp and the muscles in the neck area.
- Soothing and invigorating the sense organs.
- Naturally and gently reducing facial wrinkles.



USEFUL OILS FOR SCALP MASSAGE

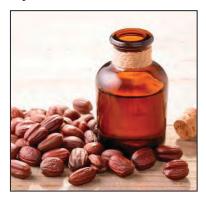
Carrier/base oils can be extremely helpful in hair care as they influence the sebaceous glands and can normalize their functions. The oils penetrate deeply into the hair shaft and follicle and help produce healthy shiny hair and encourage new hair growth. Coconut, Jojoba, Almond, Avocado and Olive are great as base oils for scalp massage.



• Coconut Oil is solid at room temperature and melts by warming it in your hands. This oil has both anti-bacterial and anti-fungal properties, and marvelous for dry scalp condition and dry hair.



• Jojoba Oil is not actually an oil but a non-greasy liquid wax. It is highly penetrative and helps dissolve sebum to unblock the pores providing a healthier environment for your scalp.



• Sweet Almond Oil helps strengthen hair and regular massage help induce hair growth.



• Both Avocado and Olive Oil are rich in nourishing vitamins and are excellent choices for improving blood flow to the scalp and stimulating hair growth.



HOW TO MASSAGE YOUR SCALP AND HAIR

- Pour some oil into a bowl and warm the oil by placing the bowl in some hot water. The oil should be warm but comfortable to the touch, alternatively warm a little oil by rubbing your hands together.
- Using the pads of your fingers, work the oil into your scalp using circular motions. Slow, deliberate movements are relaxing whereas vigorous movement helps enhance energy and circulation.
- Apply the oil little by little to different parts of your scalp, parting your hair as needed.
- Cover your entire scalp, all the way down the sides to your ears and at the back to your neck.
- Leave the oil on for at least 30-60 minutes, longer if you can.
- After your massage, dip a towel in hot water, wring it out, and wrap it around your head for added conditioning and softening of hair.
- You can even leave the oil on overnight place a thick towel over your pillow to protect your bed linen.
- Wash out with a gentle, natural shampoo.

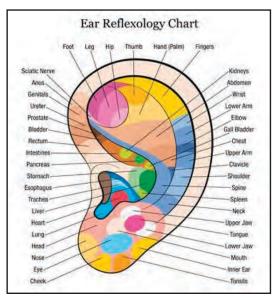


Ear Massage

Ears are home to some incredibly powerful acupressure points that can stimulate many benefits. Due to their constant intake of sounds and stimuli, ears can become easily imbalanced. Ear massage or ear reflexology, also known as auriculotherapy, works to relieve stress by stimulating these ear pressure points. One of the main reasons why ear massage also known is so incredibly powerful is that the skin of the ears themselves are particularly sensitive due to the ear having a great number of nerve endings specifically the ear lobes. Ear massage produces the following responses and benefits:

• Nerve sensations that resonate through the whole body

- A feeling of happiness from transmitting positive endorphins
- Enhanced immune system from stimulating the senses
- Improved skin quality from stimulated skin
- Relaxing sensations from the therapeutic touch of massage.



How to do Ear Massage

Rubbing the outer edges of the ear. Placing the top of the ear between the forefinger and thumb, rub the finger back and forth as you work your way down the edge of the ear. Rubbing stimulates the ear nerve endings and will increase blood flow to the area, bringing blood to the head and making you feel more alert and awake.

Ear pulling

For relaxing ear pulling, you can start either at the top of the ear or at the lobe. Placing the ear cartilage between the thumb and forefinger, gently hold the ear and pull it outward away from your head, letting the ear slide through your fingers until it is released. Take care to reach all the way to the spot behind the ear where the ear attaches to the side of your head before gently pulling away. This part behind your ear is particularly sensitive since it is not often touched. Work your way around the ear and back for a wonderful stress relieving move.



Ear lobe massage

There are a few ways to massage the ear lobes. Try some of these massage moves to see what you like the best.

Circular motions

Place your forefinger and thumb around your ear lobe. Keeping the forefinger still, move your thumb in a circular motion around the lobe. Now, do the same with the forefinger instead, keeping the thumb still. (It might help to imagine you have an ear piercing and that you are rubbing around the piercing hole.)



Lobe pulling

Starting at the bottom of the ear, pull the lobe down gently and as you work along the ear lobe, pull more and more out and away from the head.



Pinching or pressing

This is more formally known as acupressure, or focalized massage applied to pressure points. Around the lobes this can be very effective, and it is very simple to do. Pinch the edge of your ear lobe between your fore-finger and thumb and work your way around the edge of the lobe. You can even extend this move up around the edge of the full ear. You can also press or pinch in a circular movement around the fleshy part of the lobe.



Ear stroking

Lighter massage movements can be incredibly powerful at stimulating the nerve endings in particular body parts. Try tracing the outline of your ear, tracing the inner curves of your ear cartilage, and stroking around the whole ear at once with the fleshy parts of your fingertips. You can also stroke the spot behind the ear from the top down where the ear joins with the head for a wonderful relaxing effect.



The spot behind the ear

This part of the ear as mentioned earlier has a slightly heightened sensitivity since it is harder to get to and therefore touched less frequently. The skin behind the ear is also not as tough as other parts of the body since this area is protected by the ear itself and this too makes it more sensitive. This spot behind the ear can similarly be stroked, pressed, pulled, and pinched to deliver lovely sensations. Stroke gently up and down the crease where the ear joins with the head



Moving the entire ear

Covering the ear with the palm of the hand and pressing inwards, rotate the whole palm (with the whole ear) in a circular motion. This will also give a slight side of the head massage, releasing endorphins and a beautiful relaxing sensation.

What is Foot Reflexology?

Reflexology is the application of pressure to areas on the feet. Reflexology is generally relaxing and may help alleviate stress. The theory behind reflexology is that areas of the foot correspond to organs and systems of the body. Pressure applied to the foot is believed to bring relaxation and healing to the corresponding area of the body.

It stimulates the circulation, improving the nerve and blood supply to areas of the body which is congested. Reflexology can do no harm; it only helps bring the body back into a state of balance by giving the body back its resources through improved circulation.

How does reflexology work in brain injury?

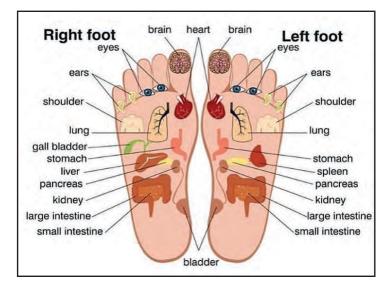
For patients with little or no mobility, it is vital to ensure that three key systems – circulatory, eliminatory, and immune – are all stimulated to encourage them to work as effectively as they can. It works on many levels and being a holistic therapy, it deals with the mental/ emotional side of things as much as the physical body. Prolonged illness, injury or emotional upset will in time start to alter the body's ability to function effectively. In simple terms, long term pain and injury can cause depression, an unhappy state of mind can start to show itself in physical ailments. This is where reflexology works on a subtle level. The body and mind have a fantastic ability to heal and sometimes a little nudge is all that is needed to help it to remember what it knows and needs to do, to function as well as it can.

It shows a remarkable improvement in the participants' ability to walk and use their hands and arms, as well as improvements in speech. Foot reflexo-therapy can restore the damaged brain function and revive the limb and speech performance of patients with cerebral thrombotic sequelae. It was also proposed that foot reflexo-therapy is useful in the prevention of cerebral thrombosis, as well as in the treatment.

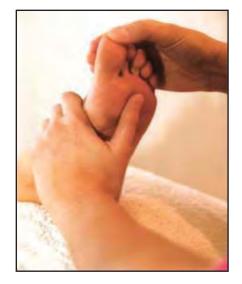
Steps to perform foot reflexology:

1. Understand the reflexology zones: When you perform reflexology, it's necessary to learn where the reflexes are on the feet that correspond to every limb, organ, and gland of your body. When you apply pressure to these specific points, you stimulate the corresponding limb, organ, or gland. Engaging the tip of a particular zone by applying pressure to a place on the foot activates the body's

healing power for that entire zone.



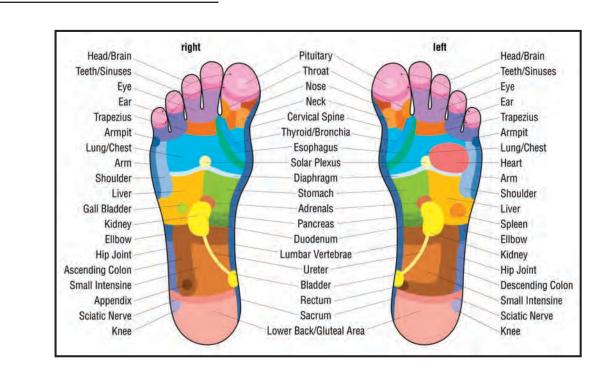
2. Apply pressure on the reflex points: When you identify which zone you want to engage, find the correct reflex spots on your foot by looking on a chart or consulting with a reflexologist. For brain injury the zone is located under the big toe. Apply gentle pressure to the area. The pressure you apply to these spots will stimulate your body to create endorphins that interrupt the pain cycle and relieve stress.



Foot Massage

Foot massage has been practiced in many cultures for centuries as a way to promote health and well-being. Today, foot massage is used by millions around the globe as a form of complementary and alternative medicine. Massaging your feet can be a deeply relaxing experience, especially when performed along with a scalp massage at night before bed. Some of the benefits of foot massage include:

- Providing comfort to sore, aching feet
- Strengthening the feet
- Enhancing vision
- Promoting healthy local tissues, veins, and ligaments.
- Lowers blood pressure
- Reduces the effects of depression and anxiety
- Helps with flat feet and plantar fasciitis



How to do foot massage:

Before getting started

- Soak the feet in warm water, with or without a few drops of diluted essential oil.
- Pat the feet dry with a towel.
- Sit in a comfortable chair. Bend your left leg and rest your left foot gently on your right thigh.
- Spread massage oil over the foot, up to the ankle. Rub it gently into your foot and massage your whole foot including the toes, arch, and heel.
- Do a deeper massage. Press the knuckles of your right hand into your left foot. Knead your foot as you would bread. Or work the skin and muscles by holding a foot with both hands and pressing your thumbs into the skin.
- Hold the front of your ankle with one hand. Then pinch the back of your ankle with the thumb and forefinger of your other hand and pull down toward your heel. This relaxes your Achilles tendon, which can get especially tight from exercise, standing for long periods of time, and wearing high heels.
- Using your hands, gently pull the toes back and forth or apart. This stretches the muscles underneath.
- Finish by rotating each toe lightly. When you're all done, switch feet.
- Repeat on the other foot.



Steps for complete foot massage:











































Walking barefoot on sand:

Sand walking is beneficial due to the added stress and strain that is placed on the muscles, tendons, and joints. The foot "sinks" into the sand and this requires the muscles to work harder to propel you forward for the next step. The soft sand is unstable which requires more neurological input to the foot and ankle complex. This instability helps to strengthen the ankle and foot muscles and enables the lower extremity to be able to move you forward. The entire lower extremity is forced to "work" harder on an unstable surface and it can enhance the strength throughout the leg. Most people perform sand walking without wearing shoes therefore the little muscles of the foot that help support the arches of the foot are strengthened, also.



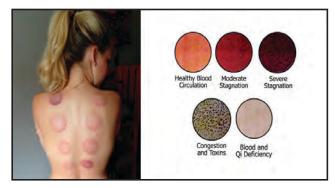
The instability that occurs when someone is sand walking creates an environment that is especially helpful to re-educate and stimulate more neuromuscular activity in the lower extremities. This is extremely important for people who have previously suffered injuries. An injury or pain in any body part can negatively affect the neuromuscular activity, reducing the response within the muscle. This response of the muscle to the nerve is referred to proprioception. The muscles respond reflexively, and it is not a cognitive process. The foot and ankle complex are very susceptible to this phenomenon and can be treated with sand walking.

XII. Cupping Therapy:

The Marks

Not all cupping treatments leave marks and the marks actually indicate different things. They give some insight to what's happening inside your body. There may be light cupping marks that last a day or two. This describes the first picture noted above "Healthy Blood Circulation."

These cupping marks are discoloration of the skin due to broken blood vessels just beneath the skin, much like a bruise. This indicates the level of blood and Qi stagnation, toxin accumulation, or dampness accumulation in your body. The color and pattern of the marks reflect the level of stagnation in that area. The darker the color, the more stagnation present. Moderate and severe stagnation will typically leave marks that last a little longer. They indicate that something is happening (or has happened) in the tissue, leaving behind the stagnant blood, cellular waste, and / or pathogens.



When Will the Marks Go Away?

These harmless marks will slowly fade before disappearing completely after approximately 1 week depending on the skin's regenerative ability. After regular cupping treatments, you will find that the marks will visibly become lighter and lighter.

- Light pink: Fade within a few minutes to an hour.
- Dark red: Fade between 3 days to a week (up to 2 weeks if it is an old injury)

Safety aspects of Cupping:

- The practitioner must wear disposable latex gloves whilst carrying out both types of cupping. Before cupping actually begins, the patient's blood pressure and pulse should be checked.
- The blades used for wet cupping incisions should be disposable.
- The incisions in wet cupping should be superficial, involving the epidermis only.
- The patient should be questioned on how he or she feels any unusual sensation or fever.
- All other necessary safety measures should be in place.

Determination of number of Cups:

There is no standard formula to determine number of cups used. Generally. 8-12 cups are used for adults. There are many factors in determining the number of cups:

- Age of the patient
- Height
- Weight
- Blood values (hemoglobin, etc in case of wet cupping)

Indications for Cupping Therapy

- a) Pain
- b) Stiffness
- c) Muscular spasms
- d) Congestion due to trauma
- e) Skin disorder
- f) Digestive complaints
- g) Lung disorders

h) Diseases which comes under cupping therapy are lumber disc herniation, cervical spondylitis, cough, bronchial congestion, asthma, Anxiety, paralysis, Depression, back pain, varicose veins ,high blood pressure, eczema, acne, fertility, arthritis, fibromyalgia, diabetes, anaemia, shingles (herpes zoster), insomnia, and gout.

Contraindication of Cupping Therapy

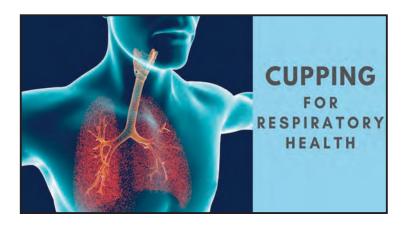
- Patients with bleeding disorders such as haemophilia or who are being treated with anticoagulants, cupping may not be the best treatment option.
- Cupping should not be performed on skin sites with active inflammation, burns, infection, and open wounds.
- A child
- Elderly
- Pregnant
- Menstruating
- Anemia

Benefits of Cupping:

• Decrease muscle activity which results in pain reduction.

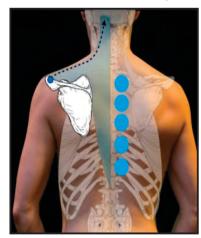
- Help with muscle relaxation by improving microcirculation, promoting cell repair and angiogenesis in tissues.
- Promote healing process via increased local tissue metabolism.
- Activate the lymphatic system to drain excess fluids and toxins.
- Induce comfort and relaxation on a systemic level.
- Good for musculoskeletal pain: Chronic lower back pain, neck pain and fibromyalgia.
- · Good for digestive problems: Bloating, gastric reflux and constipation conditions.
- Good for improving recovery: Cough, asthma and common cold.

Cupping for Congestion



For this treatment we recommend silicone cups, or the glass and rubber bulb 45mm or 50mm cups as we will be using a flash cupping (suction the cup, lift it, release it then reposition to next spot and repeat) method.

Next, position your cup on one side of the Thoracic cavity (back) not touching the vertebrates (refer to photo below). Leave the cup suctioned for one second, remove quickly (pop it off – this creates extra vibration), move to the next spot and repeat. Start from the top and go down one side of your back before moving to the other side with the same. Repeat 3-5 times and every 4 hours as needed. Cupping on the upper back helps with releasing congestion by drawing out the stagnant old blood and body fluids, allowing new flow of blood, lymph to the area. This provides the area access to the immune cells to carry out the immune response effectively, for the intake of nutrients, the removal of toxins, other waste, and expelling infectious mucous. New flow of blood and lymph and other nutrients to the area aids with the immune response and helps with releasing the intercostal muscle strain that caused chest tightness.



This technique can be used for children, adults and elderly (for children, elderly or anyone who is energetically deprived, use light suction).

Warning and Contraindication: Do not cup if you have lung issues or during asthma attack.

Following cupping therapy for colds and flu, keep the cupped area covered for 24 hours to avoid cold and wind exposure of the cupped

area. If possible, try to retain warmth and rest for several hours to allow the treatment to take its full effect.

Facial Cupping

Face cupping, as the name suggests, is a facial treatment using suction cups. The suction helps in stimulating skin muscles and increasing the blood flow which results in healthy, plumper looking skin. Massaging the skin using these specially designed cups ensures cell repair, toned and younger-looking skin. It also helps in healing scar tissues and is thus recommended after surgery.



Sinus & Congestion Cupping Treatment

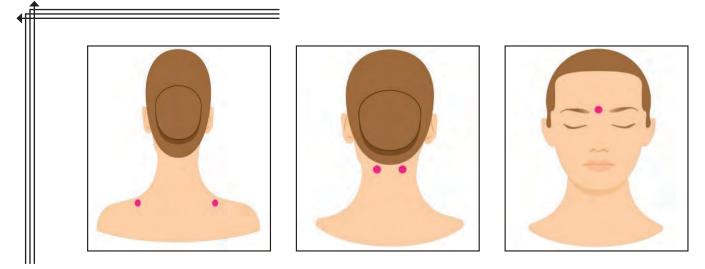
- Have the client lie on their stomach.
- Apply oil to the back of the neck and to the neck and upper shoulders.
- Perform placement cupping using 2 soft cups. Place the cups at the base of the neck. For a first time client, 30 seconds of placement is recommended. You can then build up to 2 minutes and a maximum of 10 minutes.
- Proceed to massage the neck with the soft or hard cups, depending on the required pressure requested by the client. Drain from the top of the shoulders into the neck properly to ensure release and relief.
- Let the client slowly turn onto their back. Cleanse the face initially taking care to wipe off any eye makeup.
- Apply 1 drop of eucalyptus essential oil to your hands and gently use pressure point therapy to apply the product to the temples, sinuses, and lymph nodes under the jaw line.
- Follow by applying 1 pump of any oil to the face. Perform facial cupping massage and focus on massaging the forehead and underneath the eyes, draining from the midline outwards. Use the soft Facial Cup for this part of the treatment.



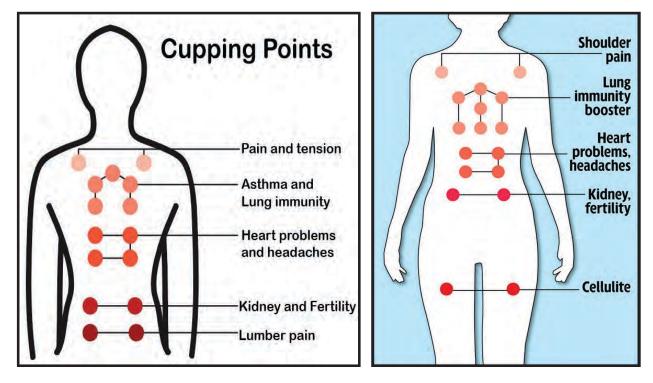
- Finish the treatment by using hand massage, ending at the pressure point in the occipital hollow.
- End by wiping the excess oil off

Cupping for Headache:

You can perform dry cupping for your headache by using following points. Squeeze a cup lightly and perform circular movements on the back of your neck. Place 2 soft cups at the base of your skull for 2 minutes.



Some other Points which you can use for generally dry cupping are showed in following picture:



Usage of Essential Oil while cupping

Essential oils and ointments can be applied on the skin surface prior to cupping. Oils such as eucalyptus, lavender and frankincense are anti-inflammatory, warming and pain relieving. These and other oils aid in circulation and naturally support the immune system. Other oil choices can include: oregano, rosemary, tea tree, lemon, lemongrass, peppermint, cinnamon, clove bud, grapefruit, sandalwood, basil, juniper berry, thyme, sage, ginger, cypress, and pine. A few drops of each essential oil can be added to a carrier neutral oil and massaged into the skin. Cupping performs gentle exfoliation and blood flow stimulation which helps the oil absorb while also helping to `exteriorize` toxins and reduce stagnation in general.

Dr. Mahmoud Sous - Ph.D.

During the period of 1995-1999, I went to the medical school in Poland to research about the various methods of back pain treatment. After finishing my PhD, I took variety of courses including naturopath, acupuncture, and manual techniques. This gave me an idea that exercises, and massage could be helpful in treatment of chronic pain. But my findings didn't stop me here, I also worked as a naturopath practitioner in Canada where I got familiar about treatments with Chinese medicines, osteopath techniques and some other manual therapies which helps in pain management.

Fixing injuries requires an understanding of anatomy and biomechanics. That is why my research and treatment belong to the holistic approach of using different techniques and remedies for the treatment of back pain. In 1990, I realize that there are some complex spinal aspects and issues which leads to of back pain. So, from my case studies I formulated a guideline which is clear and easy to understand and will fix your issues



My goal is to help people visualize how the body functions and what happens inside when you experience pain. Healing requires to focus on one's action because pain results due to faulty actions and movements. This thought motivated me to work on a book which will include all home remedies where people can treat themselves to fix their pain. I have included knowledge based on my clinical research using manual massage therapy, food habits, nutrition facts, heat, sauna, hydro-therapy, cold water treatments which overall helps in pain management. It gives me pleasure to introduce this book to the community where I have shared all my experienced treatment plans.



Priyanka Yadav (Physiotherapist)

I started my career in 2011, since then I have worked as a Physiotherapist in several clinics and hospitals in India. Working mostly in the Outpatient department made me realize that Physio's role is extremely crucial in the rehabilitation and recovery process of a patient. My desire to reach out to more people motivated me to work for this book. Have worked with Dr. Mahmoud on several research books on self-pain management. We have been constantly working on curating the best suited protocol for various Musculoskeletal

conditions. Additionally, we have also included approaches with alternative medicine.



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