

Musculoskeletal Injuries: A Comparison of Western Allopathic and Ayurvedic Treatments (By: Anna Holden)

The human body is a wonder. The structure of our skeleton, combined with the fluid strength of our muscles and the tendons and ligaments that connect muscles and bones together, makes the human body a bio-mechanic masterpiece. It is able to move through several planes of motion by the grace of our spine, which can move in four different directions, allowing us perform a multitude of physical activities. For example, we are capable of flowing through sun salutations, propelling ourselves forward to walk or run, and find dynamic stability and balance while surfing or skiing.

When anatomical principles are followed, including proper alignment and attention to proper range of motion, our bodies can function with ease. If, however, we continuously practice activities with improper alignment, or we are pushed out of alignment by some outside and unseen event, our bodies can experience pain and injury. Sometimes, pain can arise without any acute episode. The Western Medical model has a fairly succinct system for managing both acute and chronic injury, and is only starting to look towards ancient healing systems like Ayurveda^{i[1]} for healing injury.

Traditional Ayurvedic treatment of injury includes some Western allopathic methods, but moves beyond them to include healing of the mind, body and spirit. This paper will explore the Western allopathic and Ayurvedic treatments for both acute and chronic injury and/or pain.

For the purposes of this paper, injuries will be divided into two categories: acute and chronic. Acute injuries are those with a sudden and severe onset of pain, possible swelling and the inability to place weight on the area, abnormal ranges of movement, weakness and tenderness. Chronic injuries may start out as acute injuries but continue to persist in the body. One way to gauge whether an injury has become chronic is when pain is experienced during participation in physical activity or exercise after the acute injury has been healed, a dull ache occurs during rest, or when there is persistent swelling . Chronic injury can also be defined as pain lasting greater than three months .

Acute Injury

Some of the most common acute injuries are sprains and strains. Sprains occur on ligaments and strains affect muscles and tendons. Ligaments are bands of connective tissue that connect bone to bone and hold joints, like the shoulder, together. Tendons are bands of connective tissue that connect muscles to bones. A sprain is a stretched or torn ligament, while a strain is a stretched or torn muscle or tendon. Sprains and strains share some similar symptoms, which include pain and swelling. With a sprain, however, there may also be bruising, inability to move the affected joint and a popping or tearing sound. The symptoms of a strain may also include muscle weakness, muscle spasm and trouble moving the affected muscle .

Western Treatments of Acute Injury

The most commonly recommended Western allopathic treatment of sprains and strains is to use the R.I.C.E. method: Rest, Ice, Compression and Elevation. Following this method, at the onset of injury the activity should be discontinued and the injured area of the body should be rested. Next, an ice pack should be applied to reduce swelling and inflammation. An Ace bandage or other clean wrap can be used to compress the injury, keeping swelling at bay. Finally, the injured area should be rested in a position elevated above the heart.

Other Western allopathic treatments of sprains and strains includes the use of NSAID pain relievers, immobilization of the injury, and rehabilitation exercises to restore proper range of motion. Also, a program of strengthening and stretching the affected area should be followed so that scar tissue will not build, which could increase the possibility of re-injury. Additional Western modalities

of injury treatment include electrical stimulation, alternating cold and hot packs, ultrasound and massage . In certain conditions, including tearing of ligaments, tendons or muscles, the patient may require surgery to repair the damaged tissue.

As the above methods point out, treating acute injury involves managing symptoms and resting the injured area. In addition to symptom management, some literature points to taking preventative measures to reduce the likelihood of experiencing injury or re-injury. Preventative measures are different based on where in the body injury is more prone to occur, but all preventative measures have the same basic principles of stretching what is tight, strengthening what is weak and improving range of motion in all directions . Less commonly focused on in the Western allopathic literature of acute injury recovery and prevention is proper diet, however, one article suggests that athletes experiencing acute injury should follow a diet high in vitamins and minerals obtained from healthy sources like fresh vegetables. It also suggests athletes eat “balanced protein,” and to avoid overeating so as not to gain weight while injured .

Ayurvedic Treatment of Acute Injury

Ayurvedic treatment of acute injury takes a more holistic approach. While Ayurvedic treatment follows the same general course as Western allopathic treatment in that it aims to reduce inflammation and swelling and to restore the muscle, tendon or ligament to its proper healthy function, Ayurvedic knowledge allows for identification and treatment of the many subtleties within injuries. These include noticing the different types of inflammation and swelling, observing different forces at work within the injury and addressing them individually, and keeping in mind the unique constitution^{i[2]} of the individual so that the healing program can be as unique as they are. In addition, Ayurveda acknowledges at the energetics of an illness or injury, takes into consideration the amount of toxins or ama a patient may have in their body, and assesses how well prana, the life-force energy responsible for all movement in the body, is flowing in the injury itself and in the patient’s body in general.

In order to understand Ayurvedic treatment, it is important to understand the basics of Ayurveda itself. Ayurveda is a holistic system of health that utilizes the five-element theory, which underlies all life on the planet. The five elements - earth, water, fire, air and ether - combine to create the three doshas. Doshas are the forces within nature and our bodies that are responsible for all action and inaction, including the formation of our tissues, the metabolism of thought and food, and all movement in the body including nutrients in and out of cells, breath in and out of the lungs, creative flow from our minds out our hands as well as speech and muscle movement. The definition of dosha is “fault” or “imperfection,” which explains how these forces can move to excess through improper diet or lifestyle and create a state of dis-ease in the body. In the case of acute injury, vitiation of the doshas usually occurs from outside factors like unexpected events.

In Ayurveda, both the treatment and management of disease is based on the qualities of imbalances found in the body. Ayurveda relates every state in nature, and thus in our bodies, back to their most basic building blocks - the elements and qualities that they are made of. Once the basic qualities of an imbalance are understood, we are able to provide treatments that balance the disease or injury. The most primary principle of Ayurvedic treatment is that “like increases like, and opposites reduce each other .” In Ayurveda, dry is treated with moist, cold is treated with heat, heavy is treated with light and so forth .

The Ayurvedic author M.S. Valiathan, who translated the ancient Ayurvedic text the Susruta Samhita, does not talk about injury management specifically, but he does talk about the treatment of swelling and inflammation that occur from traumas like “excessive jolting...” . These types of “generalized swellings,” as he calls them, can be attributed to either vata, pitta, kapha or all three doshas (sannipata). Vata swelling appears red or black in color and includes prickling, soft, fleeting pain. Pitta swelling has a yellow or red coloring to it, is soft and hot to the touch and spreads quickly. Kapha swelling is pale or white in color, feels cold and smooth, spreads slowly and may itch.

In general, Valiathan recommends that anyone with swelling, regardless of the cause, should avoid sour and salty foods, and heavy foods such as milk, sugar and ghee . This is because most generalized swelling is due to increased water retention in that area, caused by Kapha dosha, and

because the water element in the body (i.e. swelling) is increased by the intake of the aforementioned foods. Based on the type of swelling and inflammation, mentioned in the previous paragraph, Ayurvedic treatment can include herbal formulas containing properties to treat the imbalance with its opposing qualities. Some of the herbs Valiathan recommends to treat swelling include vidanga, trikatu, haritaki, guggulu, fresh ginger, punarnava and pippali .

The classical Ayurvedic text the Ashtanga Hridayam, by Vagbhata, does not talk about muscle injuries specifically, but does talk about the healing of traumatic injuries, which he defines as those “wounds which occur suddenly.” Vagbhata also recommends treating with opposites. He recommends treating inflammation in acute traumatic injury with a topical herbal application, called a lepa, using herbs with a cold potency, sweet taste and unctuous properties . These three qualities - cold, sweet, and unctuous - help to reduce inflammation and heat.

Most modern Ayurvedic sources encourage the use of external herbal compounds, like lepas, for treating acute injury. Lepas are medicinal herbs made into a paste with oil, aloe, or another liquid, then applied to the skin. An article in Yoga Journal Magazine recommends the use of herbal compounds to improve the circulation of prana, or life force energy, and blood around the injury. The article states that, if applied correctly, the active ingredients in the herbs will be absorbed by the skin, thereby reducing pain and swelling and improving circulation. The article also suggests the use of herbs such as Salai guggul, kapitthaparvi, and bola, both internally and externally to reduce pain, strengthen bones and joints, and cleanse the blood of toxins . Additionally, white willow bark - the herb that inspired Westerners to create Aspirin - is recommended as an analgesic and anti-inflammatory. This article also recommends that the patient rest and ice the injury.

An article by Alakananda Ma, an Ayurvedic Practitioner, recommends reducing pitta-type pain and inflammation through the use of pitta reducing herbs that have an affinity for joints and muscles. These include guduchi, tulsi, turmeric, licorice and the formula Kaishore guggulu, all taken internally. Additionally, the patient could drink anti-inflammatory teas like ginger or tulsi-turmeric-ginger. For localized healing, the author recommends the use of anti-inflammatory oils like castor and maharayan to be massaged into the affected area, and then rinsed off in a hot shower. Once inflammation is gone, the patient could massage the area with one of the aforementioned oils, and then follow with a ginger or baking soda bath.

For muscle tendon injuries where there is no inflammation present, Ma also recommends Patrapinda Sveda therapy. Patra means “the leaves of medicinal plants,” pinda means, “bolus,” and sveda means fomentation or heat therapy . Therefore, Patrapinda Sveda is the application of medicinal leaves fried in ghee or oil, and wrapped in a muslin cloth to form a bolus. The bolus is then massaged into the injured area, where the medicinal properties of the plant will absorb into the skin and provide pain relief via softening of the tissues. Additionally, Ma recommends that once an acute injury has healed past any inflammation, a yoga therapy program should be started that addresses any pain, under-use, loss of conditioning and joint laxity. Finally, muscles should be slowly conditioned to sustain maximum functional capacity.

The treatments that Ayurveda offers to heal acute injury can be summed up by the treatments offered at a clinic in Kerala, India, which specializes in Ayurvedic sports medicine. The treatments utilized by Ayurveda to heal acute injury are: internal medicines (like herbs and diet), external medicines (like lepas and patrapinda sveda), varma chikitsa (procedures to increase joint mobility and function and decrease pain), pancha karma^{i[3]} (removing toxins and cleansing the body), and traditional physiotherapy. With this holistic approach, Ayurvedic treatment of injury can be a good route to healing and even an alternative to surgery .

Chronic Injury

As stated above, chronic injury can be described as injury lasting more than three months, or twelve weeks. The original cause of chronic musculoskeletal pain may have been an infection, injury, or wear and tear from incorrect movement over an extended period of time. Chronic pain or injury are often difficult to manage because many times the cause is unknown , and sometimes pain occurs in the body for no apparent orthopedic reason, with no acute episode of injury. Both Western medicine and Ayurveda offer treatments for chronic injury.

Western Allopathic Treatments of Chronic Injury and Pain

For the most part, Western treatment of chronic injury includes following the plan laid out for acute injury, and then adding a recovery and maintenance phase of healing. In the recovery phase, the American Academy of Physical Medicine and Rehabilitation recommends building strength and flexibility around the injured area to repair normal function and range of motion. Then, they suggest a maintenance phase during which the patient minimizes the chances of injury recurrence by engaging in a supervised, total-body fitness program .

Chronic injury, however, can have more of an effect on the body than just the area of injury and surrounding tissues. Long-term chronic injury and/or pain can have psychological effects also.

Often, pain can change the regular patterns of a person's life, their relationships to others and the way they function in everyday life. Reduced coordination or strength in an area of a body can make a person less independent than they once were, and create a need for them to rely more on others. These changes due to pain, when left untreated, can lead to psychological problems and even more pain . The Mayo Clinic conducted a study on pain and depression. They describe the link between pain and depression like a cycle:

Pain and depression are closely related. Depression can cause pain - and pain can cause depression. Sometimes pain and depression create a vicious cycle in which pain worsens symptoms of depression, and then the resulting depression worsens feelings of pain .

Therefore, not only does pain affect the physical body, it also affects how a person thinks and feels. When thoughts and emotions are particularly negative, they can increase the pain that the person experiences . There are some Western techniques for addressing the emotional/psychological component to pain. They include occupational therapy, and psychotherapy or counseling.

Occupational therapy helps people manage both the physical and psychological effects of pain. Occupational therapists teach people to manage their daily activities and lifestyle in accordance with their pain or injury through several methods. They teach people how to identify behaviors that increase pain and then offer alternative methods instead, and methods for decreasing the frequency or intensity of pain. They teach patients new ways for using their bodies to decrease pain during everyday tasks. Occupational therapists also help the patient by collaborating with their team of health care professionals to keep a clear path of treatment .

Psychotherapy or counseling can help patients by guiding them to reduce stress and tension, and to make lifestyle changes when necessary. Because of the aforementioned link between pain and depression, it can often be difficult to tell which came first if there was no acute injury to musculoskeletal tissue. In these cases, psychotherapy can be quite effective at getting to the bottom of what is causing the pain and/or depression - whether it be a stressful job, a negative living situation, or an unsupportive relationship. Patients may be guided through counseling to change the situations that may be aggravating their chronic pain or injury .

Ayurvedic Treatment of Chronic Injury and Pain

Similar to Western Allopathic treatments of chronic injury, Ayurvedic treatment of chronic injury and pain will firstly follow their same treatments for acute injury, and also include phases in treatment for maintenance and prevention. All of the aforementioned Ayurvedic treatments would continue to be applied as needed for pain and healing of tissues. Also similar to Western medicine, Ayurveda treats chronic injury and pain with both physical application and psychotherapy - specifically, Ayurvedic psychology, which differs from Western. Ayurveda always includes treatment of the mind, body and spirit, and believes that health and healing must address each of these aspects of our being. In addition, because it believes that every physical manifestation had first a subtler component, complete Ayurvedic treatment will provide treatment for pain and injury through subtle body anatomy, including the nadis, chakras and auric field.

Beginning with treatment for the physical aspects of chronic injury, Ayurvedic body therapies for

chronic pain would include those listed above – internal medicine, external medicine, varma chikitsa, Pancha Karma and physiotherapy – but would be adjusted as necessary as vitiated doshas come into balance. Next, a patient would be treated using Ayurvedic psychology, which teaches the patient about who they are as an incarnated soul and the specific growth and challenges that they may face in this life. From this understanding of soul development, the patient can gain an understanding of their pain or injury in the context of their life journey. This can help a patient understand the lesson behind the pain, which can change the perception of pain from something that occurred outside “to” the patient to a signal from the body to create change within the patient’s life. Additionally, while Western psychology focuses on revisiting the past in order to understand how a current situation manifested, Ayurvedic psychology emphasizes taking stock of the current situation and making positive changes to transcend the situation and create the life that is wanted.

To begin to address chronic musculoskeletal pain and injury through Ayurvedic psychology, the practitioner may look at the tissues affected and their related psychological function.

Musculoskeletal injuries, by definition, are those that affect the muscle tissue, tendons and ligaments, and bone tissue. Ayurveda calls muscle tissue and ligaments *mamsa dhatu*, and the related psychological function is courage, fortitude and self-confidence. Symptoms of deficient *mamsa dhatu* can result in muscle wasting, loose ligament (which often cause many chronic injuries in athletes), and fear, worry, low self-confidence and low self-esteem. The Ayurvedic term for bone tissue is *asthi dhatu*, and its related psychological function is stature and the ability to stand tall.

Deficient *asthi dhatu* can result in osteoporosis and other weak-bone disorders, as well as arthritis.

Using the above information as a guide, the patient should be guided to recognize what in their life is causing them to feel a lack of confidence and support, and be guided toward building confidence and self-esteem so that they can stand tall and have no doubt that they can support themselves. In order to do this, we must understand all aspects of the Self – moving past the physical body and into the subtle and causal aspects of our existence. Ayurvedic philosophy states that all physical reality had a subtler component that preceded it, so only addressing the physical component is not necessarily addressing the root cause. For mind-body-spirit healing, Ayurveda will of necessity address the subtle components of pain – the underlying thoughts, behaviors or attitudes that may keep the body in distress.

Looking at the bodily tissue associated with the injury is just one way to treat the underlying psychological issue. Additionally, chronic pain can be assessed based on where it is in the body and how that relates to the subtle or astral body and the chakra system that energizes it. The subtle body is an energetic copy or template of the physical body and is projected by the seven chakras, which are the energetic templates of the nerve plexuses of the body. Our chakras serve two basic purposes – first as pumps that run energy through our bodies via the nadis, or energetic channels that run along the spine, and second as determinants of our experience. Chakras can run two types of energy – ordinary subtle energy, which is necessary for everyday experience and function; and heightened subtle energy, which changes our perceptions and allows our consciousness to be raised. When energy in a chakra is partially blocked or moving too slowly, dis-ease in the physical body may manifest. Until the underlying issue has been addressed at the chakra level – which usually includes self-reflection and work in underlying values, beliefs, and emotional attachments – the physical pain will persist. Much research has been conducted and written about the different chakras and the life lessons they provide. Therefore, the location of the chronic injury or pain as it relates to the nearest chakra can give the practitioner more information about the cause and purpose of the pain and how to treat it.

There are several healers in the alternative medicine field who work with this principle. Some do not fall fully into either the Western allopathic model or the Ayurvedic model, but I will include them here because they utilize the ancient wisdom of the subtle body system, which originated from the same source as Ayurveda. Carolyn Myss, in her book “Anatomy of the Spirit,” describes in detail the seven chakras and the common injuries, diseases, and afflictions that occur because energy in that chakra is stagnant or blocked. Her first principle of whole body healing is that our subtle biography becomes our physical biology. She says:

As our lives unfold, our biological health becomes a living, breathing biographical statement that conveys our strengths, weaknesses, hopes and fears. . . . All our thoughts, regardless of their

content, first enter our systems as energy. Those that carry emotional, mental, psychological, or spiritual energy produce biological responses that are then stored in our cellular memory. In this way our biographies are woven into our biological systems, gradually, slowly, every day.

This is very similar to the Ayurvedic principle that every physical manifestation first had subtler origin. In her book "Women's Power to Heal Through Inner Medicine," Ayurvedic author Maya Tiwari emphasizes this principle when she says, "Our bodies are made of consciousness and spirit In order to heal, we need to appease vital tissue memory and nourish and nurture the whole self. What Tiwari and Myss are saying is that what we believe about our world, and especially how we think and act on those beliefs will affect our biological health. People with chronic pain, then, are receiving constant signals from the body that something is not right and that there are beliefs, thoughts, values, lifestyle choices or relationships that are continuing to create disharmony in the subtle body system.

Myss' second principle for subtle body health is that personal power is a necessity for health. This relates directly to what was stated above, that in Ayurveda, people with chronic musculoskeletal injuries must be treated for the psychological conditions of lack of confidence, self-esteem, and ability to stand up and support one's self. Tiwari's writings support this with an entire chapter entitled, "Your Own Energy is Your Best Medicine ." Both Myss and Tiwari argue that our attitude can cause us to either keep healthy personal power and self-esteem, or cause us to lose power.

Myss uses the example of a woman who came to her with chronic pain. She had no acute episode responsible for her pain or exhaustion, however, she believed she was inadequate and constantly criticized her children in order to make them dependent on her and give her a sense of purpose.

Because she believed she was inadequate, she consistently gave away her power to this belief, which left her with no personal power with which to heal herself . Only a change in her beliefs and attitudes about herself could change the flow of energy through her chakras and keep her subtle body energy at a healthy level.

Myss's third principle of healing - that you alone can help yourself heal - also closely follows the Ayurvedic understanding that we carry within us the innate ability to heal ourselves, and that real healing comes from the inside, through self-inquiry, self-acceptance, and understanding of our true nature as spirit. The Western allopathic model is set up in such a way that we give up our power to self heal and instead turn our physical bodies over to someone with more "credentials" for healing.

This model leaves us with a great sense of helplessness and defeat when it comes to pain and injury. Instead, the philosophy laid out by Ayurveda and Myss - that each of us has within us the power to heal - teaches us that not only are we responsible for our health, but we are also responsible, at some level, for creating the injury or pain. Embracing this can give us the power needed to heal, because it allows us to recognize that by participating in our healing, we are healing our mind, body and spirit as one - not turning the physical body over to someone else for partial healing.

Similarly, in "You Can Heal Your Life," Louise Hay guides readers toward healing dis-ease, including chronic pain and injury, in the body. She believes in principles that closely follow Ayurvedic philosophy:

We are each responsible for all of our experiences.

Every thought we think is creating our future.

The bottom line for everyone is, "I'm not good enough."

It's only a thought, and it can be changed.

We create every so-called illness in our body.

We must be willing to begin to learn to love ourselves.

Self-approval and self-acceptance in the now are the keys to positive changes.

When we really love ourselves, everything in our life works.

Hay affirms that the path to healing all disease, including chronic pain or injury, is through releasing the negative emotional patterns (subtle body anatomy) that create pain in the physical body by learning to love the self. She relates physical injury to the subtle body cause behind it – our attitudes and beliefs about our world and ourselves. Then, she guides readers step-by-step through a series of positive affirmations designed to change negative thought patterns.

Ayurvedic treatments for chronic injury and pain on the subtle body level to address chakra or energy imbalance could include self-inquiry, meditation, pranayama, sound therapy (both listening to music and chanting), and repeating affirmations or Sanskrit chants. Because chronic injury or pain is signal that there is a long-term imbalance in the body, subtle body healing is critical in addressing the underlying cause of discomfort and eliminating it from the body.

Both Western medicine and Ayurveda treat chronic injury and pain through both physical modalities and psychotherapy (the body and mind). However, because Ayurveda believes in the connection of the mind, body and spirit, it is able to take a healing a step further with its utilization of subtle body anatomy to aid in understanding and releasing the underlying causes behind chronic injury and pain that Western medicine often misses.

Conclusion

Both Western Medicine and Ayurveda offer options for healing acute and chronic injury. When working with acute injury, Western medicine generally utilizes a one-size-fits-all approach that generally helps people recover; however, through its doshic theory, Ayurveda has a more intricate healing method and can offer more individualized healing. For chronic injury, Western medicine has recognized that both the body and the mind must be treated in order to realize healing. However, Ayurveda's knowledge of the subtle body system make it an excellent choice for patients ready to take charge of their own healing path and realize healing of the entire mind, body and spirit.

Author's Notes

I have personally experienced chronic, low back injury and pain for most of my life, but more extensively the past three years. I have experienced severe ligament laxity (hyper mobility) of the sacral iliac joint and pelvis, resulting in near constant pain and discomfort. I originally tried a Western approach that included ice, heat, NSAID pain relievers, rest and physical therapy. I did not heal. I turned to an alternative approach to healing which included Yoga, meditation, yoga-based physical therapy, visceral manipulation therapy and an Ayurvedic diet and lifestyle. All of these modalities helped the physical manifestation of my injury, but did not provide complete healing. I was only able to fully heal when I learned about the subtle body connection and dove into figuring out what negative beliefs and attitudes I held about myself. Then, I came to recognize how my current lifestyle and relationship was constantly and consistently reinforcing those negative beliefs.

For me, the changes necessary to bring about healing required that I learn to find the courage to let go of fear and have faith that if I love myself, and I follow the path of self-love and Spirit, I would be taken care of. It was through the lesson of chronic injury and pain that I was able to learn the lesson of self-love and realize full-body healing.

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