

Pain Management at the Touch of a Hand

Its hold can be momentary, to lifelong and range in intensity from dull to excruciating. Pain is the number one reason we visit our doctors. An estimated 100 million North Americans suffer with chronic pain. For relief, doctors often recommend aspirin, 30,000 tons (US) of which are manufactured by drug companies every year.

When we hurt, we automatically place our hand over the area of pain. It is these innate responses that have been developed into the practice of the modern day version of medical massage. Although the science of how massage works is still in its infancy, this ancient healing art, when understood, offers one of the most simple yet profound answers for those who suffer. Pain is an important messenger that alerts us the cellular damage. The cause can originate from trauma, pathology or other degenerative tissue changes.(enclosed pain Tension Cycle Chart) Damaged cells release chemicals that excite nociceptive and or chemoceptive (pain) sensory nerve fibres. Pain may be localized or diffuse its intensity can range from mild to unbearable. These inflammatory chemicals are part of built-in protective mechanism produced to stop bleeding and to protect the damaged area through muscle guarding. In Crayton III Human Physiology and Mechanisms of Disease page 378 it state "injection of extracts from damaged issue cause intense pain. "When the tissue is damage scar tissue is manufactured, effectively walling off the area from invasion of bacteria as well as seals what could be an open wound. Scar tissue is formed both internally and externally in the presence of tissue break down. These adhesions when stretched can cause tearing of healthy tissue causing pain during normal movement. In the case of an open wound, the body needs to prevent loss of blood. Autonomic reflexes cause small smooth muscles, that the arteriole (the smallest arteries feeding the capillary bed) constricts. This stops bleeding in the area of injury.

Decreased free movement of blood causes a lack of arterial pressure to wash out the tissue by-products and decreases O₂ and nutrient supply. The surfaces or connective tissue are particularly vulnerable to inflammatory reactions. This connective tissue is a protective covering that contains mast and other cells. These cells rupture when injured or traumatized. Histamine, a powerful vasodilator increases tissue permeability to proteins and blood cells involved in natural immunity. Fluids no come into the tissue to balance the protein/ fluid ratio (colloid osmotic) pressure. This causes edema or swelling. Cellular absorption of excess fluids will cause a thinning of the cells' lipid surface increasing potential of the rupturing of this thin membrane

The prolonged continuation of the reflex arteriole smooth muscle spasm cutting off the blood supply, causes the cells to become weakened from lack of oxygen and nutrients. This makes them vulnerable to further damage. The muscles normally provide a pumping action When relaxing and contracting. Protective muscle guarding, immobilizes the area of trauma where adhesions are being formed. Loss of movement leads to continued lack of proper circulation increasing stress factors involved in cellular breakdown.

Disruption of the cellular feed and elimination process leads to “interstitial constipation”. Pain is both palpable (able to be felt with your hands) and is also electrically monitor able by acupuncture point location devices or electricians’ metres This sign is the effect of sympathetic supply which increases moisture that increases conductivity or decreased resistance at the point of inflammation. Normal texture of the soft tissues should be soft and supple. Other signs of abnormalities are shown by:

- Changes in temperature
- Tenderness upon touch
- Swelling edema
- Inflammation (heat, swelling, acutely painful, and guarded)
- Redness (release of histamines from excessively weakened tissue – mast cell rupturing)
- Stringiness (fibrous tissue changes)
- Muscle holding, ranging from hypertonicity to spasm
- Metabolite retention (crystal-like formation in the tissue)
- Fatigue (lack of tone in the tissues; atrophy)
- Nodules (small knotted areas) of scar tissue with inflammation congested
- Moisture (on surface tissue is the result of sympathetic supply brought on reflexively by nerve excitation)

We often continue to work and ignore the pain messages, increasing the potential of further damage. Inflammation is the key to understanding the breakdown and repair system in the body. When areas of inflammation and tissue by-products are massaged appropriately, the blockages chemical are pushed away. The result is arteriole smooth muscle relaxation. This device will electronically monitor sympathetic nervous reflexes that are no longer active. In the analogy of a garden hose, this would be like removing a clamp that would now give us the pressure we need to wash away debris by the force of pressure and enable us to water the garden. In the case of the body’s way of feeding the capillaries and their cells, direct force of blood washes out metabolites and receptive sensory nerves allow the sympathetic nervous system to stop reacting and the pain tension cycle ends.

The Asians feel that free movement of blood in the external circulatory system is reflexively related to systemic health. They charted acupuncture points relating them to the functioning of blood flows throughout the body. The lack of circulation in one place leads to its lack elsewhere. Acupuncture point location devices show moisture (sympathetic nervous responses) accurately revealing lack of circulation locally and or reflexively. New reflex association points are being found by practitioners every day. Points are often located on bony tendinous attachments or directly over nerves. Points are also located directly above the areas of visceral dysfunction. The external body is very sensitive to pain stimuli and is where we experience most pain. By removing the external blockages to the circulation throughout the body, we restore cellular functioning.

Our health is our most valuable asset. Without proper preventative maintenance of our vehicle, we can have mechanical failure. Massage lubricates and is likened to greasing all the mobile parts of a car.

Manual manipulation of the soft tissue removes congestion locally and reflexively. Scar tissue is stretched out creating new pathways for the free movements of fluids in the body. Simple preventative maintenance can prevent unnecessary cellular deterioration. By understanding the pain message, we can now use massage technique to relieve pain and promote cellular health throughout the body.

Needless chronic degenerative tissue changes are preventable, and if caught early enough in its cycle, highly treatable. The Pain eraser device once manufactured will help both the diagnostician, physical therapist, and or lay- persons in defining inflammatory reactions and eliminating this source of degenerative tissue changes.

The Pain Point Finder Pressure Treatment Device

Physical pain is often hard to identify and measure. The body however does have a built-in monitor for detecting cellular damage, no matter what the cause. The automatic nervous system responds sympathetically to damage by constricting arteriole feed to capillaries either reflexly (abdominal sympathetic reflexes) or locally. The body will continue to react to and through inflammatory responses until the degenerative process ends. The use of hands-on therapies is seeing a boom in the world. Our hands can feel these areas of tissue degeneration (pain) through palpation. One of these is moisture produced when the nervous system is in a reactionary state. There are numerous machines on the market that can detect moisture through increased conductivity commonly used to locate acupuncture points. There is also a model (found in my technical research) that indicates use of this device for pain location.

Once located, simple pressure on sensitized areas will improve the circulation either reflexly or locally. The cells health will improve and tissue breakdown is less likely. Once the device is manufactured, a complete manual including the physiology of pain and a video library will accompany it. People are often ignored when pain symptomology is not validated through x-ray, cat scans, magnetic imagery restricted movement or obvious external degenerative deformity. Although this device will show degenerative processes, pain is still somewhat subjective. It will monitor the progress of an individual's recovery provided the individual is in a relaxed state each time the test is conducted. (The body can have an overall sympathetic reaction to stress and or exercise through the adrenal secretion making the measurement inaccurate.) Now doctors and laypersons can accurately acknowledge this degenerative process caused by the sympathetic nerve innervation to areas undergoing tissue damage. Manipulation of these sensitive sites with pressure from this device and or thumbs and fingers will force the chemicals release from damaged tissue into the lymphatic and or venous return where the body will not detect the pain these chemicals cause. Once removed, arteriole feed is stored thereby nourishing the cells making them less vulnerable to tissue damage.

Changes that occur can be monitored with this device.

- Moisture electronically measurable by increased conductivity or decreased resistance (this works the same as a multimeter set on OM)
- Increased temperature (due to enzymes) amplified thermometer readout

- Pitting edema head of device shaped to cause this when pressure is applied by match shaped head. It will cause pitting due to edema
- Pain upon touch or pressure due to inflammation
- Redness after pressure is applied, due to histamine release
- Increase of tissue by-products and metabolite is audible (sound like crunch, gush) measurable through a stethoscope
- Increase pulsation due to increase arterial pressure possibly measured with a stethoscope
- Where are these sensitive areas located
- Directly over visceral organs under sympathetic supply
- Areas that are undergoing trauma due to recent injury
- Areas that have ongoing trauma due to repetitive strain injury (near tendinous muscle attachments) over use, abuse, lack of use. All can create chronic degenerative tissue disorder (term coined by Workman's Compensation Board)
- Over points mapped out in systems using reflex zone areas i.e. acupuncture, reflexology, auricular, shiatzu, trigger points, etc.

About the device

- Shaped like a wooden match head that creates pitting edema upon applied pressure
- Conductive head and resting surface on hand (between thumb and index finger)
- Spring loaded to prevent excessive compression
- Stethoscope around base of head
- Moisture detector
- Neuro-conductive head will bring blood to it (i.e. zinc)
- Vibrator head to oscillate decreasing crystallization of metabolite and decreasing the sensory reaction of pain receptors
- Digital monitor for measuring decrease in sympathetic reaction during healing process
- Sound monitor for easy location of points

The Pain Eraser

The pain eraser is both a diagnostic and treatment device. Its application is for both clinical and home use. The layperson, physical therapist, and diagnostician will find this device useful.

This is a battery operated pain location and treatment device. It is a small hand held instrument used as an extension of one's reaction to inflammation. Once pain is resolved, the device discontinues registering reactions. This device will indicate inflammatory changes showing up on the surface tissues. These reactions can be from recent trauma, old injuries or indicate reflexes such as visceral reflexes, nerve reflexes, or acupuncture points.

To use this device, simply turn on the on switch and hold it in your hand like a pencil. The point is shaped like a head of a wooden match. Run this head over areas of complaint or over mapped out reflex association points. The sound monitor will tell you when you are over the most active point. The digital

readouts will tell you when the area is becoming less reactive either during the treatment or after each treatment. Pressure gauge shows amount of pressure that is needed to create pitting (another indication of inflammation i.e. pain signs). You can use this device to flush out inflammation by simply holding pressure, counting to 10 and moving to the next active point. An area with a one-inch radius could take up to three minutes to treat, moving 1/16th of an inch at a time. There is no limit to how often during the day the device can be used or areas treated. The original concept of this device came from using acupuncture point location devices. This device was developed from the perspective of a massage therapist who has developed tactile skills in detecting inflammation. Manual manipulation moves pain-causing chemical out of congested tissues. The technology of this device is based on the understanding of pain physiology.

The advantage over other instruments on the market is its accuracy of finding pain related to inflammation. The device also has the ability to monitor reactions to treatments while being used to treat. It works by defining signs of pain (moisture, edema, pain upon touch, heat, redness, tissue by-product build-up). This invention is based on emerging sciences of the effectual mechanisms by which massage works. The device will monitor progress by the therapist charting the findings. Frauds will now be able to be weeded out knowing that inflammation is not necessarily present. This makes insurance companies happy because they can save money on paying out on false claims.

The device will likely cost around \$10 per unit to manufacture in large amounts. The market potential is a fast growing one as people are seeking non-drug alternatives and are using more preventative therapies. Marketing would depend on whether the device is being developed for a layperson or a diagnostician. In my years of teaching, I have used similar devices to demonstrate pain manifestation and demonstrated it is measurable electronically. I have also demonstrated to students that once successfully treated, the body will stop registering through sympathetic reflexes.

There is no existing prototype. A complex manual would have to accompany the device. The existing models can help to develop a prototype. The performance of the device has shown great effectiveness in the form of modes.

I would like to work together with a firm to develop working models, establish research data, and put into place the manual and potential video library for its use. I would like to see this much needed pain eraser device on the market to help those people who are suffering needlessly. Demonstration and any other form of information can be had by contacting Jocelyn at 250-442-2547 or 1-800-665-3211.