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MOST FREQUENTLY ASKED QUESTIONS

What is the Electro-Acuscope/Myopulse System?

The Electro-Acuscope is a highly sophisticated electronic medical instrument which is designed to scan and treat many types of painful conditions. It is one of a class of electrical stimulators called TENS (Transcutaneous Electrical Nerve Stimulation). TENS means that the instrument uses electricity to reduce pain by stimulating the nervous system of the body without puncturing the skin in any way. The Myopulse, companion instrument to the Acuscope, gently stimulates the muscles, tendons and ligaments, reducing spasm, inflammation and strengthening tissue damaged by traumatic injury. Together they comprise the most technologically advanced and effective electronic physical therapy equipment available in health care today.

How do these instruments work?

The Acuscope and Myopulse establish a two-way communication between their own circuitry and the electrical signals from the area of the patient's body being treated. Using biofeedback technology, they measure such things as tissue conductivity and cell capacitance (the capacity of the cells to hold an electrical charge). Generally tissue conductance is very low in an area of chronic pain and abnormally high in areas of inflammation. In order to correct abnormalities, the treatment introduces gentle currents in wave forms similar to the body's own electrical signals. The Acuscope is programmed to generate the current pulse which damaged nerve tissue requires in order to return to a normal, pain free state. The Myopulse sends corrective signals specific to muscle and other connective, contractile tissue so that the cells can begin the work of self-repair.

How much electricity does the Acuscope or Myopulse produce?

The amount of electricity generated by the instruments is measured in microamps (millionths of an amp), an extremely tiny amount of current in comparison to the amount of electricity flowing from a wall socket or from any other common high voltage electrical device. It has been scientifically proven that this low level of current produces the most beneficial effect on the body's cells. Both instruments produce battery generated electrical signals in patterns similar to and comparable with that which is produced by the body's own normal, healthy cells, the kind and level of energy which is constantly flowing through every living person and animal.

May I have an in-depth explanation of how the Electro-Acuscope reduces pain?

Every living body is made up of a vast number of cells. In ways, the cells act like tiny batteries, storing and releasing energy. Each cell has a measurable electrical charge and therefore there is a constant energy flow maintained between cells throughout the electrical circuitry of the body.

When damage or trauma occurs, there is a disruption in the production of electricity and a measurable decrease in the flow of energy through the tissues involved. This condition is called electrical resistance and is generally accompanied by a sensation of pain in the area.

During treatment, the Acuscope introduces mild electrical current into the cells of the body in order to return the tissue to a normal level of electrical activity. This process may be likened to a "jump start" and "putting a charge" on the battery of a car.

While providing beneficial electrical current, the treatment causes the body to improve circulation, produce and more effectively utilize proteins and other nutrients required for cell metabolism and repair. In this way, the instrument assists the body in accelerating the natural self-healing processes. In addition, mild electrical current cause the body to generate chemicals called "endorphins," naturally occurring pain suppressers. The immediate pain relieving results, as well as the long term benefits of an Acuscope/Myopulse treatment, may therefore be considered an electro-chemical response occurring in the involved area at a cellular level.

How many treatments will a patient need?

The pain relief which follows each treatment of a given area will last longer and longer and each successive treatment will require a shorter amount of time to be effective.

The number of treatments required will depend on the severity and extent of the condition as well as the body's ability to heal itself. Age, general state of health, habits and even state of mind may influence the length of time required for complete recovery. Somewhere between five and fifteen treatments is the normal average.

Unlike other forms of pain relief, such as therapy with certain drugs or higher amperage electrical stimulators, the body does not build up a tolerance to Acuscope treatments. Both with many pain medications and most hi-amp devices, prolonged use requires higher and higher doses of medications or increased time and amounts of electricity to achieve the desired pain reduction effect. With EA/MYO treatments, sessions of shorter and shorter duration produce more dramatic and longer lasting effects, until treatment is no longer required. By definition, this is called the "cumulative" effect.

Please explain why the results from an Acuscope treatment are cumulative.

Mild current stimulation, ideally at the level of 500 μ A (microamps) or less, has been proven (Cheng, 1972) to cause the cells of the body to increase production of the chemical ATP which is responsible for cellular energy production. It has also been shown to increase protein synthesis, the building blocks of tissue, which allows the cells to begin to repair themselves. This low level of current is known to improve certain cellular functions which pump ions (such as sodium, calcium, potassium, etc.) into the cells, and to increase the transport of waste products out of the cells thereby assisting the flushing of toxins out of the tissue.

As these chemical reactions build up with each treatment, the tissue is able to repair itself more completely. The "charge" on the tissue begins to hold and its ability to generate its own normal energy is restored. In most cases of neuro-muscular pathology, a series of treatments leads to permanent relief.