

Services

Treatment Modalities

Electrical Stimulation/Neuromuscular Electrical Stimulation (NMES)

Electrical Stimulation is the application of current to elicit a muscle contraction. Contracting the muscle via electrical stimulation helps strengthen the affected muscle and also promotes blood supply to the area which serves to assist in healing. The use of E-Stim in orthopedic and neuromuscular rehabilitation has grown significantly in recent years. . E-Stim is performed by placing electrodes on the skin so the physical therapist can recruit the appropriate muscle fibers for contraction. The physical therapist can change the current settings to allow for a forceful or a gentle muscle contraction, pain relief, swelling control, and strengthening.

Transcutaneous Electrical Nerve Stimulation (TENS)

TENS is one of the most commonly used forms of electrostimulation for pain relief. TENS is utilized for conditions such as low back pain, myofascial and arthritic pain, neurogenic pain, and postsurgical pain. Electrodes are placed around the affected area and an electrical current is sent through the electrodes. A tingling sensation is felt in the underlying skin and muscle. This signal disrupts the pain signal that is being sent from the affected area to the surrounding nerves. By breaking the signal, the patient experiences a decrease in pain.

Ultrasound

Ultrasound is a modality that emits high frequency sound waves that vibrate the tissues deep inside the injured area. This vibration creates heat that draws blood and nutrients to the injured area to assist in the healing process. It is used to treat pathologies related to tendons, muscles, and other joint structures. Its effects promote tissue relaxation, increase soft tissue extensibility and range of motion, decrease muscle spasm, inflammation, and pain thus speeding up the healing process.

Phonophoresis

Phonophoresis is a modality where an anti-inflammatory steroid or pain relieving cream is applied to the injured/inflamed tissue and ultrasound is then used to penetrate the medicine into the underlying tissues. The heat created by the ultrasound waves increases the energy of the molecules in the drug; therefore, decreasing inflammation and pain.

Iontophoresis

Iontophoresis is a non-invasive method of delivering anti-inflammatory medications into the skin and to deeper tissues through the use of electrical polarity. It is based on the principal that like charges repel. With a direct current, an electrical charge can be applied to a charged medication of the same polarity and the drug will be 'pushed' into and through the skin. The most common medication used in this treatment is the corticosteroid drug, dexamethasone. When properly applied, it is virtually painless and the medication is delivered directly to the treatment site. Because it avoids injection, there is a decreased risk of infection and very minimal potential for skin trauma. This treatment also enables a greater concentration of medication to reach a localized area than oral medications, and reduces the risk of side effects. It is also completed in a short amount of time. Iontophoresis is commonly used to treat soft tissue and other musculoskeletal inflammation including tennis elbow, achilles tendonitis, plantar fasciitis, and TMJ disorders. For optimal results, this modality is used in combination with exercise, activity modification, and manual therapy.

Mechanical Traction

Spinal traction is a treatment technique that uses forces to stretch and mobilize the spine. It alleviates pain in the neck or lower back by stretching tight muscles along the spine and widening the space between each vertebra to relieve pressure and nerve impingement. The separation is only temporary but can last long enough to allow patients to exercise and function without aggravating their symptoms. Application of traction is dependent on the area treated and the amount of force that is needed. It can also be applied continuously or intermittently. Traction is most commonly used in the cervical and lumbar regions, neck and back respectively. Traction is a widely used modality whose ultimate purpose is to reduce pain and increase patient function.

Extremity Whirlpool

Whirlpool is a modality that consists of a warm water bath. This technique is very beneficial and used to increase blood flow, promote muscle relaxation, decrease pain, increase range of motion, promote healing, desensitize nerve endings and assist with wound healing. Whirlpool can also assist with wound cleansing and mechanical debridement.

Alter-G Treadmill

The AlterG Anti-Gravity Treadmill gives you the opportunity to rehab from surgery or train through injury without pain, even while you are still recovering from surgery or injury. AlterG's unique unweighting technology reduces the impact of walking or running, while your body goes through the normal healing process. The first time you try the AlterG you won't believe how much fun it is to exercise at a lower body weight. People who have used the AlterG say it's like "running on air", and "it's so much more fun than normal running" and "you have to try it to believe it!" The AlterG can be used in a variety of ways and provide a broad range of benefits. The world's best athletes and teams use the AlterG to reduce the frequency of injuries, build fitness, and train and recover more quickly. They also use the AlterG as a core part of their athletic conditioning and training programs to strengthen and improve muscle coordination while minimizing stress on their bodies. You have to experience the AlterG to truly appreciate how amazing it is. To find out what it feels like to defy gravity and exercise like never before, try the AlterG at our Perkins Road location.

ASTYM

The ASTYM System is a therapy approach that addresses problems such as scarring, fibrosis and degeneration that occur in soft tissues. These problems may develop as the result of trauma, surgery, or overuse. The System is effective for new injuries as well as chronic, nagging conditions. The ASTYM System uses instruments along the surface of the skin to locate these problem areas and stimulate the body's healing process. As the body heals, exercise and activity help guide the healing which allows you to return to activities without pain and limitation. The success of the ASTYM System is documented for a wide variety of diagnoses and many times it helps patients where other treatments have failed. The therapists will customize a stretching and exercise program to assist you with your healing. Most patients see a significant change in their symptoms in the first 3-4 visits. To learn more, visit the ASTYM website, www.astym.com.