

Stretch

A Patient Education Newsletter

The Alter G Anti-Gravity Treadmill



JOI Rehabilitation is excited about our brand new Alter G Anti-Gravity Treadmill which is now available for patient use at our San Marco location! This unique device provides the opportunity to exercise while lessening the impact on injured muscles and bones while they are healing.

The Alter G Anti-Gravity Treadmill utilizes Differential Air Pressure (DAP) technology developed by NASA which applies a comfortable and even lift to your body. Your JOI clinician can control reduction of the weight and force through your body from 100% to 20% of your body weight. This technology allows you to utilize the normal mechanics of running or walking without the pressure of full body weight through structures that are healing.

Indications for use of the Alter G:

- Rehabilitation after surgery to the foot, ankle, knee, or hip
- Gait training to focus on correction of improper running form
- Reduced impact on your body while training
- Strength and conditioning for older patients

The Alter G system is being utilized all over the world to help elite athletes, weekend warriors, and patients of all types return to their normal activity level. Top professional teams such as the Boston Red Sox and the Los Angeles Lakers and top medical centers such as the Walter Reed Army Medical Center rely on the Alter G to help improve their patients' outcomes.

Give JOI Rehabilitation San Marco a call at (904) 858-7045 for more information on the Alter G Anti-Gravity Treadmill or visit www.joionline.net.

Exclusive Sports Medicine Provider



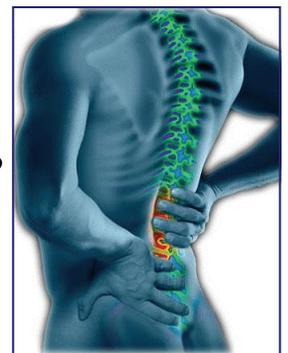
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SPINE EDUCATION CLASS

A large percentage of people, at some point in their life, will suffer from spine pain. Whether it is headaches, neck pain or low back pain, these problems can be debilitating and severely limit functional ability. When we treat spine dysfunction, a large part of the treatment is geared toward educating the patient on how to manage the pain and what to do to eliminate the things that are causing the pain. Spine pain typically involves multiple problems including: poor core stability, poor flexibility, poor posture/body mechanics and limited knowledge of spine care. Most spine therapists try and incorporate a lot of education into treatment of their spine patients. It is hard to cover everything because there is so much information. This is the reason why we offer spine education class.

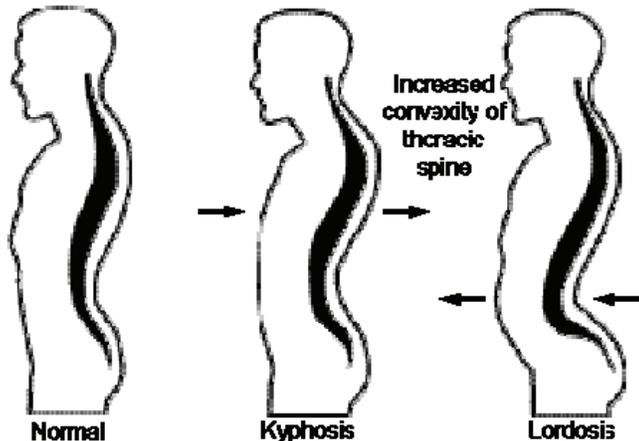


We are now offering a **FREE** Spine Education Class at JOI Rehab - San Marco on the **1st and 3rd Thursdays of each month** for current JOI Patients. It will include education on anatomy, posture, body mechanics, treatment options and some pre-operative instructions for those who will be having spine surgery. There will be opportunity to ask questions about the spine, including questions about injections. This session is meant to be an information session only but will be presented by a physical therapist who treats spine patients at JOI Rehabilitation.

Orthopedic Problems and Obesity

By: Laura Stinson, PT

It has been reported that obesity is on the rise in adults and children in the U.S. Data obtained from the National Health and Nutrition Examination Survey shows that 68.5% of men and women 20 years and older in the U.S. are overweight and almost 32% are obese. Most people know that obesity contributes to the development of coronary heart disease, diabetes, high blood pressure and colon cancer. Obesity is a contributing factor to back pain and symptoms associated with osteoporosis, osteoarthritis, rheumatoid arthritis, degenerative disc disease, spinal stenosis and spondylolithesis. It has also been reported that being overweight or obese increases the risk of orthopedic complaints such as tendonitis, bursitis, overuse syndromes and surgical complications.



Lack of exercise and bodily conditioning leads to poor flexibility and weak muscles in the back, pelvis and thighs. The result may cause an increase in the curve of the lower back causing the pelvis to tilt too far forward. This type of posture increases stress on the structures of the lower back and may ultimately weaken other areas of the spine such as the neck which may also become painful. A sedentary lifestyle and an unbalanced diet can affect the bone density or strength of the bones (spinal vertebrae) that may increase the risk of compression fractures of the spine. Disability suffered by obese subjects appear most strongly related to lower body pain such as pain in the feet, knees, heel, and lower back. Increased neck and shoulder pain is often attributed to female patients. Such conditions have been reported to have major negative impacts on quality of life measures among obese subjects.

The proportion of osteoarthritis attributable to obesity in middle-aged women is estimated to be 63%. Current evidence suggests that the increased risk is more likely due to direct mechanical stress on the joint rather than metabolic factors. Almost all subjects losing significant weight report improvements in their level of energy, physical mobility, general mood, self-confidence and physical health. Studies following weight loss consistently show sustained improvements in physical function and reduction in pain. The major improvement in quality of living in subjects with the knee, ankle and foot pain supports the hypothesis that obesity causes or aggravates conditions producing these symptoms.

Data on weight loss as a treatment for osteoarthritis has shown that even small amounts of weight loss has favorable effects. A reduction in weight has been shown to slow the progression of knee osteoarthritis. Weight loss and exercise lead to improvements in pain, disability and performance in obese elderly subjects with established knee osteoarthritis.

If you want to take control of your overall health and fitness and lose unwanted weight, there are many weight loss programs available. Well-known programs such as Weight Watchers and Jenny Craig have been successful for many people.

What is a Splint Orthosis?

By Matt Hussey, OT

Hand injuries, such as tendon lacerations or other upper extremity injuries, such as broken bones, can occur in a variety of ways. A splint can protect and immobilize these joints, and depending on the injury, there can be a variety of splints. Splints are made out of a heat sensitive plastic which is custom molded with use of hot water. Typically a sock is placed on an individual's hand while the splint is being molded for comfort. This splint can typically be taken off for certain activities of daily living (ADLs) such as showering or dressing. It also can be cleaned with soap and water. Just be extra careful, as dogs and other small animals like them too!



The most common reason a splint is prescribed is for protection and immobilization. A splint for finger fractures is called a safe position splint. This requires the patient's metacarpophalangeal (MCP) joints to be bent approximately 70 degrees. This is needed for proper healing. The site of the fracture will determine the length of the splint. If the fracture is closer to the tip of the finger, the splint may only need to be hand-based. If the fracture is lower into the hand the splint may need to be forearm based. Another common splint is a Long Arm Splint. This requires the patient's elbow to be flexed at 90 degrees and the forearm in a neutral position. This is common splint for most injuries, such as elbow fractures and surgeries needed to relocate nerves in the elbow.

While typically used for immobilization and protection, a splint can be used to increase range of motion (ROM) in joints. With injuries, an individual can develop stiffness in joints. Static progressive or dynamic splinting can help increase the motion. These types of splints are made through the use of springs or elastic bands that increases movement. These splints are initiated and controlled by the patient and can be adjusted for comfort and to set the appropriate stretch. All splints are prescribed by a physician and it is up to the doctor and your therapist to determine splinting frequency and duration.

What are Joint Mobilizations?

By: Kristen Kern, DPT



If your therapist mentions “joint mobilizations” or “mobs” as part of your treatment plan, here is a brief explanation of what that means.

Your Physical Therapist’s Role

During your first visit to physical therapy, your therapist performs an examination and evaluation which includes relevant tests and measurements related to your injury. One of these measurements is your joint mobility. Joint mobility is the amount of movement a joint has when it is passively moved. A joint may be hypermobile (too much movement/lax) or hypomobile (too little movement/tight).

If your therapist determines that you have a joint that is hypomobile, he or she may perform joint mobilizations on the tight joint. Joint mobilizations are defined as “skilled, passive movements” to a joint. They are used to stretch out the joint and surrounding tissues and to loosen restrictions. They are similar to stretching a muscle, except that they are performed by applying a force directly through the joint itself. The end result is an increase in range of motion and/or improved joint alignment.

Another use for joint mobilizations is to decrease pain. When used for this purpose, the mobilizations are gentler and are not intended to stretch the joint or increase motion. This technique can be used on a painful joint, whether it is tight, normal, or even lax. Clinicians will often use both types of mobilizations on a tight joint to increase mobility and decrease pain.

Your Role

If your therapist performs mobilizations intended to increase joint mobility, he or she will likely have you follow up with stretching or range of motion exercises to maintain the gains in mobility made during mobilization. This is where your homework, or home exercise program, comes into play. You must maintain the motion that is gained or the joint may become tight again. Remember the old adage: use it or lose it!

Beat the Blues & Improve your Health

By: Amanda Upchurch, MEd, ATC, LAT

Life can throw unexpected difficulties, problems and sadness our way. We live in a culture that is constantly seeking instant gratification and the opportunity to get something for nothing. People often want benefits without work and satisfaction without sacrifice.

Depression and anxiety is on the rise in Western society, affecting one-in-six people at some point in their life. Prozac and its competitors have spawned best-selling books, racked up sales more than \$10 billion annually and reshaped the clinical treatment of depression. Anti-depressants are a quick fix, but often have side effects such as: tremors, nausea, weight gain, sexual dysfunction and complications with other drugs.

A growing body of literature shows that aerobic routines as well as weight lifting are effective at combating depression. Exercise is useful in managing feelings of depression and anxiety for a number of reasons:

- Exercise is not only just as effective and less expensive, but all of its side effects are beneficial.
- Exercise often increases self-confidence and enhances self-esteem, by gaining new skills, improving body image, becoming fitter and looking healthier.
- The benefits last longer than quick-fixes such as comfort-eating, smoking or caffeine consumption.
- Exercise triggers your body to produce endorphins (feel-good chemicals) allowing you to instantly feel better and happier.
- Exercise removes the build-up of stress hormones hindering wellbeing, causing headaches, fatigue, loss of concentration and insomnia.

Research also supports that there is a round-the-clock relief that sets in several weeks after the establishment of a regular exercise routine.

It is best to start with a short duration and increase gradually. People who are depressed may not feel much like being active, but they should make themselves do it anyway. Once people get into the exercise habit, it won't take long to notice a change in mood and a new discovered sense of motivation and urgency to exercise.





Your outcome matters!

Choose JOI, the region's leaders in effective, healthy rehabilitation.

JOI Rehabilitation has nine convenient locations to serve you.

1 San Marco

1325 San Marco Boulevard Suite 102 Jacksonville, FL 32207 P: 904.858.7045 F: 904.858.7047

2 North

12961 North Main Street Suite 201 & 202 Jacksonville, FL 32218 P: 904.757.2474 F: 904.757.5541

3 Point Meadows

(Gate Parkway & 9A) 7740 Point Meadows Drive Suite 1 & 2 Jacksonville, FL 32218 P: 904.564.9594 F: 904.564.9687

4 Riverside

4339 Roosevelt Boulevard Suite 300 Jacksonville, FL 32210 P: 904.389.8570 F: 904.389.8599

5 Beaches

1577 Roberts Drive Suite 320 Jacksonville Beach, FL 32250 P: 904.247.3324 F: 904.247.3926

6 South

14985 Old St. Augustine Road, Suite 106 Jacksonville, FL 32258 P: 904.288.9491 F: 904.288.9698

7 University

5737 Barnhill Drive Building B, Suite 204 Jacksonville, FL 32207 P: 904.733.9948 F: 904.733.9984

8 Mandarin

12276 San Jose Blvd Suite 716 & 717 Jacksonville, FL 32223 P: 904.288.9604 F: 904.288.9643

9 Fleming Island

1845 Town Center Blvd Suite 410 Fleming Island, FL 32003

Orthotics: Foot and Knee Pain



By: Bryan Anderson, MS, LAT, ATC

Orthotics are rigid or semi-rigid inserts placed into your shoe or on your foot to help correct biomechanical dysfunction in the foot, ankle, or knee. These inserts range in variety from very expensive rigid and semi-rigid orthotics to low-cost gel inserts found in any sporting goods store. Both can be useful in relieving a number of lower extremity conditions and injuries.

Custom orthotics are inserts that are fabricated by a health care professional with expertise in lower extremity biomechanics. This typically involves molding your foot

in plaster or scanning the foot with a special device while you are walking. This also includes a biomechanical assessment by our clinician in both weight bearing and non-weight bearing to help determine the exact issues present in every area of your foot and ankle. Custom orthotics are tailor made for you, and are usually the most effective type of orthotic.

Off-the-shelf or generic orthotics can be found at most sporting goods or running stores, and can sometimes be a cost effective way to treat lower extremity pain. These are generally used "as is" from the package, and should be available in several different forms, depending on foot type and problem. The store associates at a good running or sporting goods store can typically aid in helping you pick the type of orthotic needed.

The two most common types of foot dysfunctions are known as pronation and supination. Both affect the shape and mechanics of the foot in weight bearing activities and can also cause issues up the kinetic chain into the shins, knees, and even hips and low back.

Pronation occurs in an overly flat foot generally including a very low medial longitudinal arch, and external rotation of the foot. This causes your ankle to roll as you begin to walk on the inside of your foot. This can lead to many issues in the ankle, including foot and ankle pain, stress fractures, and can increase stress on the medial knee. In general, to correct this, a semi rigid orthotic providing support to the medial arch and correcting the rolling in of the ankle is recommended.

Supination occurs in a hyper rigid forefoot and arch, characterized by a high arch, and internal rotation of the foot. This can cause a person's ankle to roll out and walk on the outside their foot. This condition decreases shock attenuation in the lower limb, and increases stress on the ankle and shin. Also, the general position of the supinated foot can increase the instance of lateral ankle sprains. To correct this, a more cushioned semi rigid orthotic is typically recommended to help attenuate shock in the foot and transfer forces from the lateral foot to the medial arch.

Community Events

2012 Walk to Cure Diabetes Now

Saturday, March 24th at the Jacksonville Fairgrounds. Registration is at 8 am, followed by the walk at 9 am - there is a 5k and a 1-mile event. There is no charge to walk; however, a donation is welcome!

Register online at:

http://www2.jdrf.org/site/TR?fr_id=1669&pg=entry



2012 Arthritis Walk - Touchdown for a Cure

Saturday, March 31st at Met Park. Registration is at 8 am, followed by the walk at 9 am - there is a 5k and a 1-mile event. Dogs are welcome!

Register online at:

<http://2012awjacksonville.kintera.org>