



The

Able Body Newsletter



Providing Effective Information to the Physician

August 2000

FAMILY PHYSICAL THERAPY SERVICES, INC.

Volume 2000 Issue 2

TENDINOSIS VS TENDINITIS

by Christina Shatney, PTA

A recent article of The Physician and Sports Medicine, May 2000, titled "Overuse Tendonosis, Not Tendonitis," gave an insight as to the treatment of tendinopathies.

Tendinitis is an inflammation of the tendon; whereas, **tendinosis** is an intratendinous degeneration commonly due to aging, microtrauma, or vascular compromise.

A tendon with tendinosis shows a loss of collagen and an absence of inflammatory cells. Therefore, treatment of tendinosis needs to combat collagen breakdown rather than inflammation. It may require a period of rest and attention to strengthening with the aim of breaking the tendinosis cycle. Once this is done, modalities that optimize collagen production and maturation are used.

There are at least eight areas which needed to be considered with this diagnosis:

1. **Imaging:** Tendinopathies are well visualized with both MRI and diagnostic ultrasound showing lost continuity of tendon collagen (i.e., tendinosis).
2. **Patient education:** Patients who have a short duration of symptoms but are still able to "warm up" the injury and engage in sports are the ones who need the most education. They are likely to continue in sports without undergoing appropriate treatment, and thus worsen the tendinosis.
3. **Biomechanical deloading:** Training errors are a common cause. Assess any equipment being used, examine movement biomechanics, and diagnose and treat any muscle imbalances.
4. **Anti-inflammatory strategies:** Because the pathology of tendinopathies show abnormal neovascularization, patients will benefit from cryotherapy due to ice having a vasoconstrictive role. Electrotherapy, such as HVGS or laser, can also stimulate collagen synthesis. NSAIDs and

corticosteroids show little evidence of being helpful. Since tendinopathies are not an inflammation and corticosteroids injections inhibit collagen repair around the tendon, this treatment has lost favor.

5. **Load-decreasing devices:** Because tendinosis results from excessive load on collagen, braces and supports that decrease load through the tendon may benefit the patient.
6. **Interaction with the physical therapist:** It is important that the therapist and physician have a parallel approach to management. Short-duration tendon symptoms take an average of 2-3 months of treatment; chronic symptoms may require 4-6 months to achieve a similar outcome.
7. **Appropriate strengthening:** Clinical effectiveness has been shown with eccentric strengthening programs. Strengthening stimulates mechanoreceptors in tenocytes to produce collagen and help reverse the tendinosis cycle.
8. **Surgery as a last resort:** Surgery can be used to excise tissue affected by tendinosis, but will not stimulate collagen synthesis or maturation. Reviews show a 75% to 85% success rate.

The New Paradigm

Tendinopathies have proved frustrating to both the patient and to the healthcare providers. This may be due to attributing the pathology to tendinitis rather than tendinosis. Healthcare providers must acknowledge that the cause is most often due to tendinosis not tendinitis and treat the problem using a different paradigm. Advice and suggestions for patients along these lines of clinical thought can help them recover more quickly and avoid unnecessary or ineffective treatment.

Managing Pain by Rhonda Fletcher, PTII

A recent article by Christine McLaughlin in the June 2000 issue of Advance for Physical Therapists and Physical Therapists Assistants discussed the role of modalities in managing pain.

Acute Pain

Most patients know that initially one should use the RICE method for acute injury, such as a sprain or strain. Physical therapists trained in the use of MENS (microcurrent therapy)

Cont. on page 2



cont. from page 1, Manage Pain

or interferential electrical stimulation can significantly help with remaining swelling and pain management. Exercises appropriate to the level of injury are then prescribed and advanced accordingly.

Overuse Injuries

Overuse injuries are common today with more and more Americans exercising to maintain health. Ultrasound therapy can be very effective to promote healing in overuse injuries. This, combined with education (e.g., proper stretching and strengthening techniques for various sports), can prevent injury, speed up recovery, and prevent recurrence. Heat and cryotherapy, as well as massage, can also promote healing.

Aquatic Therapy

Aquatics can be very beneficial for the patient with extreme pain. Patients can often do much more in the water due to the buoyancy. If the activities are based on function, the results are more apparent. For example, patients can practice dressing or stair climbing in a pool; whereas, when gravity is involved, these activities would be impossible. The use of E-stim and TENs units in the water are becoming more popular to increase muscle contractions.

Chronic Pain

Chronic pain is characterized by pain that is present at least 6 months. Many chronic pain patients fear that they are worsening their condition if they experience muscle soreness from increasing activity. In fact, some muscle soreness is a normal aspect of any exercise training program and does not mean the patient is worsening their chronic condition. Modalities can assist chronic-pain patients get through the initial training phase until an adequate training effect is achieved.

Mind Over Body

“If patients expect to get better, we all know they often will,” says Dr. Maureen Simmonds, Phd. PT. Physical therapists more than any other professional that exercises with people are aware of this. Physical therapists have the ability to empower their patients by providing modalities for pain control and providing a skilled exercise prescription unique to each patient and diagnosis.

Today more than ever, therapists are seeing patients with injuries or poor exercise technique as the result of seeing providers with limited knowledge about exercise training and skill. We owe it to our patients who are trying to improve to channel them to a skilled and qualified therapist. The therapist can instruct them correctly the first time in the appropriate use of modalities to manage pain, and proper exercise technique to maintain the desired high level of function.

INSERVICES

As part of our practice of keeping you informed about the latest treatments in physical therapy and our expanding resources to meet you and your patients' needs, we welcome your questions. Our clinicians are willing to answer any questions that you have and meet with you at your convenience to present inservices to your staff. Simply call us at 644-8334 to set up a convenient time.



Family Physical Therapy Services, Inc.
176 S. River Rd.
Bedford, NH 03110