



Around the Office:

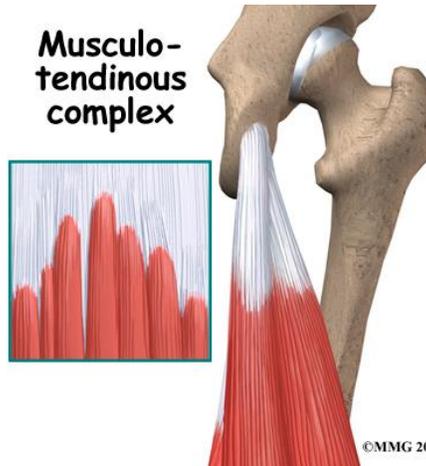
- **Upcoming Millennium Races**
 - **Mardi Gras 5K Feb 28th!**
 - **Shamrock Half March 25th!**
 - **Shamrock Shuffle March 26th!**
- **Jen Ireland, DPT is now certified in Trigger Point Dry Needling!**

What Does the Research Say?

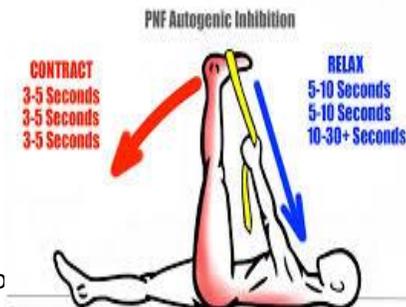
- Static stretching has been shown to be more effective than dynamic stretching for those recovering from hamstring strains. **Athletes with hamstring strains recover faster by performing more intensive stretching vs. performing less intensive stretching.**
- Patients with knee arthritis can benefit from static stretching to increase knee ROM; however, PNF stretching may be more effective. Total knee replacement patients benefited from 2 weeks of either static, dynamic or PNF stretching to increase ROM.

Why Should You Stretch?

The goal of stretching is to improve the range of motion (ROM) at a given joint by altering the extensibility of the neuromusculotendinous units that produce movement at that joint. Exercises that stretch these neuromusculotendinous units and their fascia over time will increase the range of movement possible around a given joint.



“The greatest change in ROM with a static stretch occurs between 15 and 30 seconds. Research has shown that no increase in muscle elongation occurs after 2 to 4 repetitions.”



Types of Stretching

- ❖ **Static** One position is held with the muscle on tension to a point of a stretching sensation and repeated. It can be performed passively or actively.
- ❖ **Pre-Contraction** Involves a contraction of a muscle being stretching or its antagonist (the muscle opposite to the primary) before stretching. The most common type of pre-contraction stretching is **Proprioceptive Neuromuscular Facilitation (PNF) stretching.**
- ❖ **Dynamic**
 - ❖ **Active stretching:** Moving a limb through its full ROM to the end ranges and repeating several times.
 - ❖ **Ballistic stretching:** Rapid alternating movements or “bouncing” at end ROM, however, because of increased risk of injury, ballistic stretching is not recommended.

What is the Protocol?

Intramuscular temperature should be increased prior to stretching. Increasing the temperature has a positive effect on the ability of the collagen and elastin components within the musculotendinous unit to deform. This is achieved through low-intensity warm-up-type exercise or through the use of therapeutic modalities. **Exercise is the most effective means for increasing intramuscular temperature.**

Meet Salem Sports and Rehab's New Therapist!



William Gould, PTA, COTA: Bill Gould graduated from NHTI Claremont, NH in 1993 with his associates in Physical and Occupational therapy. Since then Bill has worked in outpatient PT facilities focusing on orthopedic sports injury and surgical repairs. Bill has taken numerous courses for manual techniques for a wide variety of conditions. In his spare time Bill enjoys running, working out and time with his family.

