

Stretching

American College of Sports Medicine incorporated flexibility training into its Position Stand in 1998. The guidelines indicate students should stretch their major muscles 2-3 times per week.

Flexibility is a basic component of physical fitness. Develop a healthy range of stretch allows us to move with greater extent of motion and keeps muscles supple and responsive to the demands of daily activities and exercise.

Regular flexibility training can minimise factors that limit flexibility and help to balance muscles groups that might be overused during physical training or as a result of poor posture.

Static Flexibility

This the capacity to move a joint through its full range of motion. eg a ballerina holding the splits. Muscles are slowly stretched to the point of limitation holdings for 15-30 seconds.

Dynamic Flexibility

Muscles which are responsive to elastic responses in order to move a joint throughout its full range of motion at varying speeds with varying forces. eg a bowler bowling a fst ball must have sufficient dynamic flexibility of the shoulder.

The goal of stretching is to optimise joint mobility while maintaining joint stability. Students often believe you are stretching muscle fibres but you are in fact stretching muscle fascia. Muscle fascia wraps single cells or fibres, groups or fibres and the finally encases the entire muscle.

It acts like a plastic wrap that gives the muscle structure. When the muscle and fascia are warm the muscle and its surrounding connective tissue stretch easily. Therefore our aim is to raise core temperature and then gently stretch the muscle fascia and the muscle fibres to the point of mild tension.

Sensory Response to Stretching.

Our body's protective mechanism to help prevent over stretching and injury to muscles is called the stretch reflex. When a muscle is stretched, the muscle spindles send a message to the spinal cord that the muscle is being extended. If it is being over extended the spinal cord sends a message to the muscle to contract and prevents potential muscle tissue damage.

Understanding this reflex illustrates the risk in ballistic stretching (bouncing movements).

Types of stretches

Static - Muscles are slowly stretched to the point of limitation holdings for 15-30 seconds.

Ballistic - rapid, bouncing or bobbing motions. Soft tissue structures easily overloaded with this method and most trainers, physical therapists feel that this stretching is the least beneficial for recreational exercise.

PNF Stretches (Proprioceptive Neuromuscular Facilitation) - used to increase flexibility the most popular being the contract relax technique which should be only used with a professional.

Reference - FitPro, London & American College of Sports Medicine.