Beaver Sports Medicine

Servicing the Mid Valley's Orthopedic Sports Medicine Needs
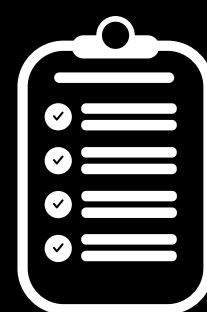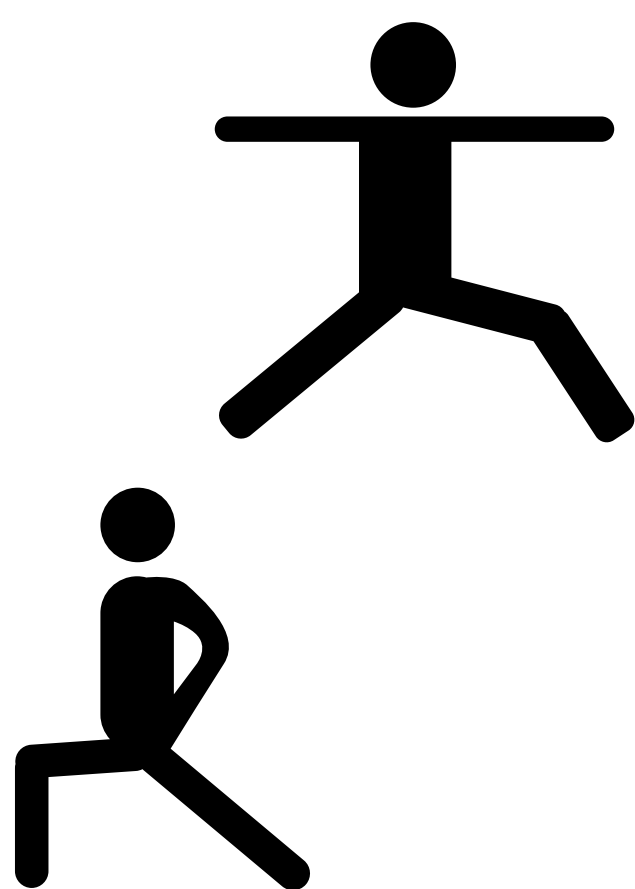
The proper way to stretch and warm-up prior to exercise to avoid injury

Dynamic Stretch and Warm-Up

- Studies show that doing dynamic stretching (movement based stretching) prior to activity can increase power, explosiveness and overall performance as opposed to static stretching (holding a stretch for a period of time).

- Examples of dynamic stretches: Walking lunges, arm circles, leg kicks, trunk rotations.

Static Stretching

- Research has found that while static stretching can provide recovery benefits when performed at the end of a workout, it can hamper performance if performed at the beginning. That's because it relaxes muscles, sapping strength, while reducing blood flow and decreasing central nervous system activity. Examples of static stretching: Holding a stretch for a period of time, without any movement.

- Active warm-up exercises — especially those that involve dynamic stretching — have the opposite effect, boosting blood flow, activating the central nervous system, and enhancing strength, power, and range of motion. As a result, they offer a host of both immediate and long term benefits.

- A 2008 study of roughly 2,000 soccer players in The British Journal of Sports Medicine found that a structured warm-up program that included running, jumping, dynamic stretching, and targeted exercises for strength, balance, core stability, and hip and knee durability decreased the overall risk of injury by 35 percent, and cut severe injuries by almost half.

- Scientists at Northwestern University had similar results in their 2011 study of 1,500 athletes. They found that 20 minutes of strength, balance, plyometric, and other dynamic stretching exercises before practice yielded a 65 percent reduction in gradual-onset injuries, a 56 percent reduction in acute non-contact injuries, and a 66 percent reduction in noncontact ankle sprains. More recently, a 2014 review of studies published in Orthopaedic Nursing found that tailoring a warm-up to a specific sport led to the fewest injuries and best outcomes.