# Warming up – the most overlooked part of practice

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## ASK THE DOCTOR

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Warm-ups are traditionally often thought of as just a quick jog and stretch prior to practice. We all have busy lives, especially in the hockey world.

However, the warm-up is just as important as the rest of the work out. In fact, I would argue even more important than the rest of the workout in some cases. I challenge you to change your opinion and even what you have traditionally learned about the warm-up. The first step is to realize that static stretching does not have to be done prior to an explosive activity, such as sports. I would go a step further and say that here at CORE, we do not do any static stretching prior to activity; we do a type of static stretching as the very last part of a training session.

Take a moment and think of your muscles as rubber bands and ask yourself this: What good does it do to stretch a cold rubber band? Simply, a muscle that is warmer can be stretched further and perform at a higher level than tissue that is not. So then you could argue why not just get a sweat going rather than stretch?

This is a better approach but there is a lot more to take into consideration when designing a proper warm-up.

Warm-up is a general bland term. I prefer to use movement preparation and/or dynamic warm-up. The purpose of the dynamic warm-up is 1) To prepare the body for the work it is about to do and 2) To reinforce the fundamentals of speed development and movement.

A dynamic warm-up should take anywhere from 15-20 minutes and be thought of as part of the workout as opposed to just a quick jog and a stretch. An athlete should be tired and sweating profusely following the dynamic warm-up.

As the dynamic warm-up proceeds, heart rate should gradually be elevated, thereby increasing circulation and body temperature. Remember, just as the muscles and other soft tissue must be prepared for the task at hand, so should the nervous system.

Training or movements which are explosive deliver a large amount of force in a very short time (i.e. Olympic lifts, plyometrics, sprinting, explosive cutting and change of direction). These explosive movements, mentioned above, place a high demand on the nervous system. The nerves fire the muscles and can be trained just like the muscular system.

A more highly trained nervous system will result in better movement quality and a more explosive athlete. As the warm-up proceeds, the stress on the muscles and nervous system should progressively increase as well. This is done by progressively increasing the intensity and range of motion of the movement up to full speed.

The warm-up needs to prepare the muscles to move at the speeds at which it will be required to move and to move through the entire range of motion required. Hockey is played in an unstable environment and requires an athlete to move in all directions at various speeds. So at CORE, I design the warm-up accordingly.

One method I use is to alternate between linear and multi-directional dynamic warm-ups. Linear is forward and backward movements and multi-directional is basically all other movements (i.e. lateral and angular). Basic movement patterns include; change of level, rotation (hips and shoulder emphasis), pushing and pulling, and propelling oneself in different directions. Warm-ups should be functional, which basically means doing full body movements (complex multi-joint movements), standing, with an emphasis on single-leg activity.

With a single-leg emphasis, balance and single-leg strength will be improved on as well. Single-leg activity can be as simple as doing walking lunges versus squats. Single-leg strength and balance should be improved from the head toward the feet. As an athlete's balance and strength improves, they will be able to keep their hips lower as they move versus bending at the back, resulting in a longer, more efficient running and skating stride.

On a final note, static stretching done directly prior to an explosive activity such as hockey or sports in general will cause the athlete to be less explosive. If your goal is to create explosive athletes that move efficiently then try a dynamic warm-up.

An athlete who is better prepared for the demands of the activity at hand and of their sport will have fewer injuries and perform better.