

Hockey Injuries

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Injury Prevention – Warming Up

Everyone knows that warming up before sport is recommended. However it is an important part of the game that is often neglected. And there is always debate as to the best way to go about it.

Warming up needs to be 'sport specific'. That is, you wouldn't warm-up for hockey the same way you do for soccer. It needs to prepare you for the movements and demands of your sport, so that when you start to play, your body is ready for the sudden demands under which it will be placed.

Benefits of warm-up include:

- Improved blood flow to muscles
- Increased tissue temperature which means smoother movements and less muscle tightness.
- Improved neural activation - by warming up the nervous system as well as the muscles. This means better coordination and sharper movements.
- Improved concentration and alertness.
- Less tissue resistance and better joint range of motion means less likelihood of injury.

Stretching

There is a difference of opinion regarding the value of static stretching before sport. Traditionally, this formed the basis of most warm-ups, and it is still used extensively in many sports. However there is research evidence suggesting this type of stretching does not help to prevent injury. And there may be circumstances where it is counter-productive.

While you should aim to improve your flexibility before sport, the problem with static stretching is that it also works to relax muscles and reduce their activation. To be ready for sport you want the opposite. You want the muscles to be able to generate 'explosive power'. This is why many experts now advocate 'dynamic stretching'. This is

when the muscles are put through a full range of motion but with continuous movement rather than a static hold.

Steps in warming up

A good warm-up should consist of:

- (a) General exercise - to increase heart rate, blood flow, and body temperature; and
- (b) Specific exercises to get the body ready for the movements of the particular sport.
- (c) On field sport drills.

While no two people will perform the same warm-up, it is recommended that these three steps form the basis of a good routine.

The following is an outline of the warm-up which I have developed for hockey. It should take 20 to 30 minutes. I do not advocate static stretching before sport, and don't use it. Many will disagree. (**See foot-note at end of document).

General exercise

It is important to increase your body temperature and heart rate before beginning dynamic exercise. Basically, you know you are warming up when you start to sweat.

1. Start with a slow jog to promote a general increase in body temperature. Two laps around the field should do.
2. Sideways shuffle 4x 30 m each way.
3. Carioca / grapevine shuffle, 30 each way x 2
4. Jog backwards 50m
5. Jog high knees 50m
6. Jog bum kicks 50m
7. Three quarter sprint with longer strides.



Specific Exercises: do all drills for both sides, spending at least 20 to 30 seconds on each. There are a lot of exercises listed, because the aim is to target all parts of the body and simulate hockey-type movements. Part of the reason for the warm-up is to improve muscle efficiency and to enhance good technique. When doing single-leg drills (indicated below*), ensure the body is in balance, and the knee stays over the foot. The knee twisting inwards is a common cause of



lower limb injuries.

1. Front to back leg swings / high kicks



2. Sideways leg swings / high kicks



3. Balance on one leg with knee bent 30° and rotate body over the hip*.



4. Spine rotation bent 60° at hips, low back straight. Rotate through the mid back, not the lower back. Gradually increase speed.



5. Spine rotation as above, but with one leg bent forward in lunge. Step other leg forward and repeat*.

6. 'Golfer pick-up' – walk forward and reach one hand to the ground while keeping the opposite leg straight. The other leg is lifted up behind.



7. Walking knee hugs (walking, pull foot into stomach)



8. Sumo squat & defence position. Shuffle left / shuffle right.



9. Sumo squats – reach both hands to R then L foot

10. Single leg squats with balance and control*

11. Forward lunges*



12. Sideways lunges*

13. Lying on back, alternatively kicking each leg over



toward opposite shoulder.

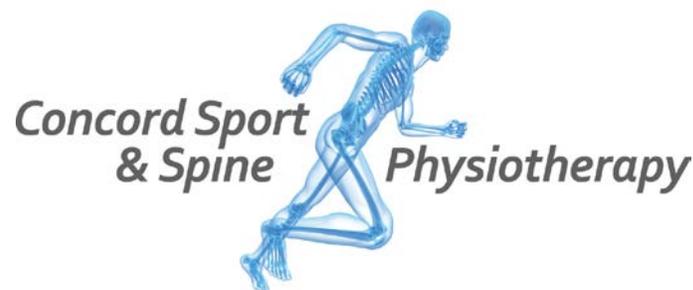
Field warm-up

When doing your trapping practice, start with longer shots, and then change to close-in trapping, to sharpen your reflexes and fire-up your nervous system.

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** For those who prefer to include static stretches in their warm-up, the main areas to stretch for hockey are:

Calves, hamstrings, quads, groin, hip flexors, gluts, lower and mid back. For further information on stretching these areas, see 'Stretches for Hockey' in the Hockey Resources section of our website.

Static stretching when performed regularly can help to improve overall flexibility, and may help to prevent injury. It is more effective if done when the muscles are warm. For this reason it is good as part of the 'cool-down' after sport or as part of any light exercise programme.