



Australian Government

Australian Sports Commission

# FACTSHEET

## The warm-up and cool-down

Warm-up and cool-down activities should be incorporated into training and competition routines. The warm-up prepares the body for activity, as well as helping to prevent injury to muscles, which can be more susceptible to injury when cold. The cool-down helps the body clear lactic acid that builds up during any activity. Less lactic acid means less soreness and stiffness the next day!

### What is the ideal warm-up?

The ideal warm-up will depend on the sport, the level of competition and the age of the participants. The warm-up should incorporate the muscle groups and activities that are required during training or competition. The intensity of the warm-up should begin at a low level gradually building to the level of intensity required during training or competition.

For most athletes, 5 to 10 minutes is enough. However in cold weather the duration of the warm-up should be increased.

The warm-up aims to:

- prepare the body and mind for the activity
- increase the body's core temperature
- increase heart rate
- increase breathing rate.

### What about the cool-down?

Too many coaches neglect the cool-down at the end of a session. It is just as important, especially after vigorous exercise because the body needs time to slow down and it is an important step in aiding recovery. The cool down should occur immediately after training activities and should last 5 to 10 minutes.

The cool-down can be the same sort of exercise as the warm-up but with low intensity body movement such as jogging or walking substituted for running. Stretching after activity helps to ensure maximum flexibility, relax the muscles, return them to their resting length and helps develop long-term attitudes to maintaining healthy lifestyles.

### Stretching

Stretching activities can be included in the warm-up and cool down. There is now less emphasis on static-stretching during the warm-up, so stretches should move the muscle groups through the full range of movement required in the activity being performed (active stretching).

Static stretching is still appropriate during the cool-down and can be used to improve flexibility.

### Some rules when stretching:

- warm-up the body prior to stretching
- stretch before and after exercise (active stretching during the warm up, static stretching during the cool down)
- stretch all muscle groups that will be involved in the activity
- stretch gently and slowly
- never bounce or stretch rapidly
- stretch gently to the point of mild discomfort, never pain
- do not hold your breath when stretching; breathing should be slow and easy.
- do not make stretches competitive.