

Warming up and cooling down - waste of time?

This month is quite a sporty month! Many would have just watched the Euro 2012 final between Spain and Italy. We are going into the second week of Wimbledon and in a few weeks, the nation is hosting the 2012 Olympic Games. As many of us may be glued to the screen watching the action there will be others who may feel inspired to get out there and try that activity, be it running, cycling, tennis, or even beach volleyball! Regardless of what sport you do though, the importance of warming up and cooling down after exercise should never be ignored.

Benefits of warming up

- **Slowly increase your heart rate** so that it is ready for when you start to exercise at higher intensity
- **Increases your core body temperature** so your muscles become more flexible and can work more efficiently during the workout
- **Increases the circulation to your muscles** so that they are well supplied with oxygen and nutrients ready for more vigorous activity and therefore provide a more effective workout session
- **Prepares your mind** for concentrating on the upcoming activity

What should a warm-up involve?

Begin with some **low-intensity aerobic exercise** to slowly warm up the muscles and increase the heart and breathing rate. Once a light sweat has been built up usually after about 3-5 minutes, it will be appropriate to **then** stretch the warmed-up muscles. *Muscles shouldn't be stretched when they are not warmed up.* Just like an elastic band, when it is cold, it is more likely to snap when stretched whereas when it is warm, it can stretch more.

Follow this with **dynamic stretches** (slow controlled movements) to help increase joint mobility. These can include gentle shoulder rolls, arm circles, high knee lifts to chest with a twist to the upper body, hip rotations, leg swings, knee bends. It will be most beneficial to perform sport-specific warm ups where the actions that are performed in the actual sport/exercise is mimicked but at a lower intensity, e.g. slow-paced strokes for tennis, steady jogging or swimming which is progressed to faster speeds, leg swings and trunk rotations for football. Start off with small ranges of movements and gradually increase the range and repeat each movement about 6-8 times in a smooth, flowing manner. Spending another 5 minutes or so on these stretches will give a warm up of approximately 10 minutes. Depending upon what your workout involves, you may need to spend longer on your stretches but try to aim for at least 5-10 minutes.

Benefits of cooling down

- **Gradual reduction of core body temperature, heart and breathing rate** to normal resting levels
- **Removal of waste products** such as lactic acid from the muscles
- **Prevents pooling of blood** in the lower limbs which can otherwise lead to

- **dizziness or fainting** and a 'exhausted' feeling post exercise
- **Prepares your body for the next workout session** by allowing the muscles to return to normal lengths

What should a cool down involve?

Begin your cool down by **reducing the pace and exertion of your exercise** for the last few minutes. Another alternative would be to jog lightly, walk briskly or cycle gently at a lower intensity than the exercise just performed. It takes your body about 3 minutes to realise it doesn't need to pump so much blood around so this part of the cool down should be at least 3 minutes, if not 4-5 minutes.

Stretching the major muscle groups that have been used in the workout. Your muscles should be warm after your exercise and so this is the best time to perform some static stretches of the main muscles that have been used. Hold the stretch for 20 seconds 2-3 times. Spend about 10 minutes per hour of exercise on stretching out your muscles. This can help to reduce post-exercise stiffness by relaxing them and helping them to regain their resting length. The less sore you feel after your exercise, the more likely you are to carry on with the exercise next time!

Summary

- 8-10 minute warm-up to include some low aerobic activity followed by dynamic stretches
- 10-15 minutes of cool down to include lower intensity activity followed by static stretches
- This additional 18-25 minutes will
 - increase your performance during the workout by preparing your body and mind,
 - prepare your body for effective future workout sessions, and
 - reduce your risks of muscle, joint and ligament injuries

You can now decide whether this is a waste of time...

Until next time, stay well!

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