



SMARTPLAY

# WARM UP

## Warm Up

### Why Warm Up?

- To increase body temperature and blood flow to muscles.
- To prepare the musculoskeletal system for exercise.
- To reduce muscle injury.

### How to Warm Up

- Progress from low intensity exercise (e.g. walking) to moderate intensity exercise.
- Progress from non-specific movement activities to specific activities.
- Include activities that involve muscle groups that will be involved in your sporting activity.
- Include movement activities that encourage changes in normal range of movement.
- Warm up within your physical capabilities.
- Incorporate stretching within your warm up.

### Tips for Warming Up

- Cooler conditions may require longer warm up periods.
- In warmer conditions a shorter time may be adequate.
- Ensure heat is not lost following a warm up. This can be achieved by wearing warm clothes or gentle movements when not directly taking part.

## Warm Down

### Why Warm Down?

- To help remove waste products.
- To reduce muscle stiffness.
- To improve recovery between bouts of activity.

### How to Warm Down

- 2-3 minute light jog or brisk walk immediately after activity.
- Light activity with normal range of movement exercises (e.g. walking with knee lifts).
- 5-10 minutes of light stretching (emphasise the major muscle groups you have used during your activity).

## Stretching

### Why Stretch?

The major purpose of stretching is to increase flexibility and maintain muscle balance on either side of a joint. Without stretching, muscles will gradually lose their flexibility and may fail to respond effectively during sporting activity. Stretching enables both physical and mental preparation for an upcoming activity or event. It can also reduce tension to relax the body, enhance body awareness, promote circulation and assist with coordination by allowing free and easy movement.



### Neck



1. Neck Flexion and Extension Stretch  
(forward then back)



2. Neck and Lateral Flexion Stretch  
(one side, then the other)



3. Biceps Stretch  
(hands apart)



4. Shoulder Stretch  
(keep elbow parallel to ground)



5. Pectoral Stretch at 120°  
(use a doorway or post)



6. Shoulder Rotator Stretch  
(using towel, pull up with the top arm then down with the other)

### Arms, Shoulders, Wrists

### Back



7. Triceps Stretch  
(pull elbow across and down)



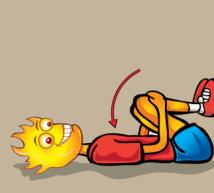
8. Thoracic Extension Stretch  
(reach forward with arms, push chest towards floor, arch back down, backside behind knees)



9. Lateral Flexion Stretch  
(one side then the other, push pelvis across as you bend)



10. Lumbar Extension and Abdominal Stretch  
(be gentle if you have a sore back)



11. Lumbar Flexion Stretch  
(be gentle if you have a sore back)

### Hamstrings

### Groin



12. Lumbar Rotation Stretch  
(rotate legs on one side, then the other side, draw in and brace stomach muscles at the same time, do not hold breath)



13. Hamstring Stretch  
(commence with knee slightly bent, then push knee straight as tension allows, push chest forward)



14. Hamstring Stretch  
(straighten leg)  
i. With foot pointed  
ii. With foot pulled back towards the knee



15. Adductor Stretch  
(push down with elbows on knees very gently, keep back straight)



16. Adductor Stretch  
(keep feet pointing forward, lunge sideways on bent knee, keep stretched leg straight)

### Gluteals

### Quadriceps and Hip Flexors

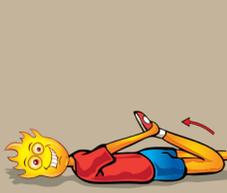
### Calves



17. Gluteal Stretch  
(pull knee and lower leg towards opposite shoulder)



18. Gluteal and Lumbar Rotation Stretch



19. Quadriceps Stretch  
(keep pelvis on floor)



20. Quadriceps Stretch



21. Hip Flexor Stretch  
(keep back straight, tuck bottom under, lunge forward on front leg)



22. Gastrocnemius Stretch  
(keep knee straight and heel down, feet facing forward)



23. Soleus Stretch  
(knee bent over rear foot, feet facing forward)

The stretches illustrated are aimed as an introduction to stretching. For further information about static and dynamic stretching, warming up or warming down, contact your local sports physiotherapist or sports doctor, or discuss with your accredited sporting coach.



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