

Warm-up, cool-down and stretch

Warming-up before playing sport prepares the mind, heart, muscles and joints for the upcoming event. It improves performance, helps players get mentally prepared and is a great step towards injury prevention.

Cooling down is equally important. It helps the body to recover and gradually return to its normal temperature. This is also a good time to work on flexibility.

Warm-up

Warming up prepares the body for physical activity – it prevents a rapid increase in blood pressure, improves blood flow to the heart, increases muscle temperature and makes muscles more pliable. By warming up, players will improve their performance and reduce the risk of injury.

Coaches should focus on the following components of a warm-up.

Aerobic exercise

- Do some easy exercise (such as jogging, cycling and skipping) continuously for 5-10 minutes to raise the body temperature so the body is sweating lightly.

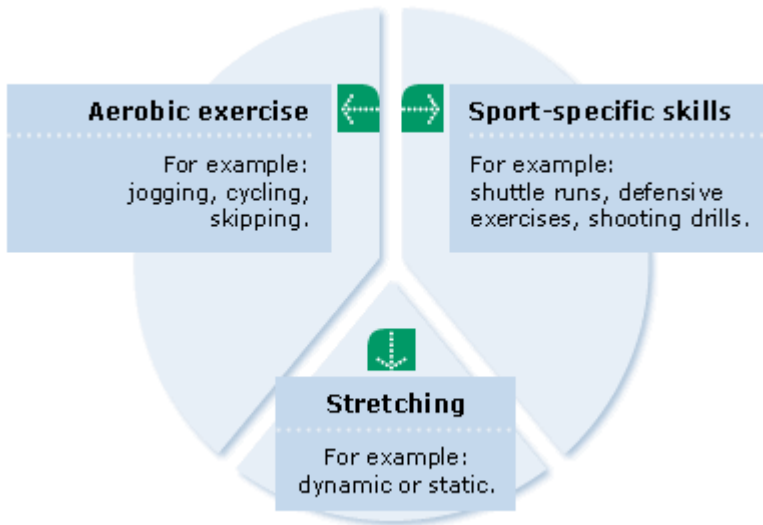
Stretching

- Stretch all the major muscle groups used when playing sport.
- Choose '[dynamic](#)' or '[static](#)' methods.
- Dynamic stretching involves stretching movements performed at gradually increased speed.
- Static stretching involves placing a muscle in its most lengthened position and holding for at least 30 seconds.

Sport-specific exercises

- Do the sorts of exercises frequently used in your sport, such as short sprints, shuttle runs, changing direction quickly, shooting drills and defensive exercises with a partner.

The relative importance of each component of the warm-up



Cool-down and stretch

Cooling down and stretching after playing sport may reduce the risk of injuries happening. It also helps to promote flexibility. This low-intensity exercise should last for 5-15 minutes and include activity such as slow jogging and stretching.

Coaches should focus on the following components of a cool-down.

Aerobic exercise

- Slow jogging round the field or court is one of the best ways to cool-down.
- Alternatives to jogging include low-intensity cycling and brisk walking.

Stretching

Static stretch for 10 minutes after the light jogging

- Follow the 'keys to effective stretching' below.
- For greater flexibility, hold the stretches for 60 seconds during the cool-down.

Recovery

- After any exercise, make sure players rehydrate.
- Treat any sprains, strains or bruises with the R.I.C.E.D. procedure.



The keys to effective static stretching

1. Do some light aerobic exercise before starting stretching
2. Breathe normally
3. Apply each stretch slowly – take it to where tension can be felt, but not pain
4. Hold each stretch for at least 30 seconds
5. Don't bounce up and down while stretching
6. Stretch all major muscles, especially those that will have a large demand placed on them.

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Static stretches

Stretching exercises

Key

←→ Movement to get stretch

⋯←→ Area being stretched



Long calf muscle

Place hands on wall with one leg to rear. Keep the rear leg locked straight and foot flat. Turn rear foot slightly inwards. Bend front leg taking calf stretch through rear calf.



Short calf muscle

Place hands on wall taking weight through rear leg. Turn rear foot slightly inwards and keep heel flat. Bend rear knee forward over rear foot.



Hip flexor

Kneel on ground with front knee at 90°. With the back straight, tilt the pelvis back by tucking the abdomen up and in and squeezing buttocks. Keep head up.



Hamstrings

Kneel on one leg with other leg out in front with the foot flexed. Keep back straight and bend forward at the hips to feel the stretch down the back of the leg.

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Front thigh

Pull heel towards buttock. Keep back straight, knees together and in line.

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Trunk side flexors

Stand with feet comfortably apart. Fold arms above head. Bend to the side slowly. Stretch up with upper elbow.

[View larger image](#)



Pectorals

Stand side-on to a wall or pole with closest leg forward. Place forearm on wall with shoulder slightly above 90°. Turn upper body away from wall or pole.

[View larger image](#)



Triceps stretch

Place hand between shoulder blades. Place opposite hand on elbow. Pull elbow towards midline with help from opposite hand.

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Shoulder Chest

Stand with head up, chin in, hands clasped behind back. Pull shoulders down and back. Press shoulder blades together and down. Pull the stomach in to prevent arching of the lower back.

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Lower back

Lie with hands behind head, arms flat. Bend hips and knees 90°, feet together. Roll knees over to ground. Upper knee should be directly above lower knee.

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Groin

Sit on floor with back straight. Grasp the ankles and draw them towards groin. Use the elbows to apply a gradual downward and outward pressure on the knees.

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Buttock

Gluteals: Lie on back with both hands around one knee. Pull knee towards opposite shoulder. Keep head, shoulder and opposite leg relaxed.

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Piriformis: Lie on back and hold knee to chest. Pull knee and ankle towards opposite shoulder.

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Dynamic stretches for Hockey

The following dynamic stretches should be done after 5-10 minutes of [aerobic exercise](#) and any specific [static stretches](#) you have been given. Other dynamic stretches can be added if you feel a need to.

[Upper body trunk rotation](#)

[Bent over upper body rotation](#)

[Leg swings forward and back](#)

[Leg swings side to side](#)

[Hurdle step overs](#)

[Lower leg calf raises](#)

[Lunges and lunge walks](#)

Upper body trunk rotation

Trunk muscles, chest

- With your feet shoulder/hip distance apart, stand with your back straight and knees slightly bent.
- Start swinging your arms across your body at waist height – you should feel this mostly in your lower back.
- Move your arms higher to around shoulder height to feel a stretch through the middle back.
- Now raise your arms to above your head to feel the stretch higher in the back.
- If you find a tight area do extra repetitions to loosen it up without forcing the movement.





Bent over upper body rotation

Trunk muscles, chest, inner and back thigh

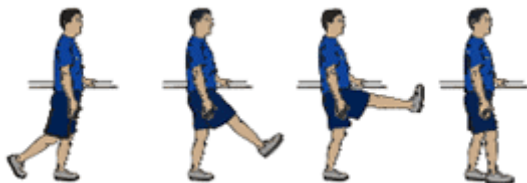
- With your feet double shoulder/hip width apart, bend at the hips ensuring that your spine stays long and back doesn't round out, bend your knees a little.
- Extend both arms out to your side at shoulder height.
- Rotate the trunk and arms to reach towards the opposite toe while bending that leg.
- Alternate sides.
- Reach as low as your flexibility comfortably allows (i.e. tension not pain) – it is not necessary to touch your toes if you can't reach that low.



Leg swings forward and back

Buttocks, front and back thigh

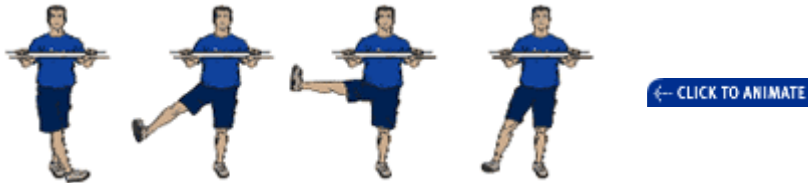
- Hold on to a solid object and balance on one leg.
- Swing the other leg forwards to a comfortable height ensuring that your trunk and lower back stay rigid and do not bend.
- Then swing the leg backwards, again ensuring that there is little movement in your back.
- Try and keep your hips facing forwards and the knee of your swinging leg straight when swinging forward and slightly bent when swinging behind.
- Change legs and repeat.
- Swing to a height that suits your flexibility. Forcing the leg high by swinging too hard may result in injury.



Leg swings side to side

Back and inner thigh

- Hold on to a solid object and balance on one leg.
- Turn your foot on the leg you are balancing on outwards.
- Swing the other leg away from the body turning the foot to point at the sky.
- Then swing the leg back across the body pointing the toes in the direction your leg is moving.
- Check that you are minimising trunk movement.
- Change legs and repeat.



Hurdle step overs

Buttocks and inner thigh

- Hold on to a solid object and stand with one leg behind the other.
- Lift the back leg knee high to the front and then rotate the leg outwards returning to the start position.
- Check that you are minimising trunk movement.
- Change legs and repeat.



Lower leg calf raises

Calf muscles

- Position your body as if you were on the starting blocks of a sprinting race, feet side by side.
- Support your weight on your hands and feet.
- Start stretching your calves by pushing one heel towards the ground then onto the ball of the foot and then back again.
- Alternate between legs.



Lunges and lunge walks

Side trunk, back, hip and leg muscles

- Keep your trunk upright at all times.
- Take a large step forward and drop your body down between your legs.
- The front knee should be pointing in the same direction as the toes and shouldn't be too far forward over the toes.
- Check the front and back knees are at right angles at the bottom of the step.
- Alternate between legs.

Progression: The arm on the "back leg" side reaches up and over to the other side on

each step. The stretch will mostly be felt down the sides of your trunk. For an extra challenge - try doing the walk forwards and backwards.

