

# Netball Smart

**for Umpires**



NETBALL NEW ZEALAND  
*Pōitara-whiti Aotearoa*



Te Kaporeihana Awhina Hunga Whara



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# INTRODUCTION

## Whakatūwheratanga

This resource helps umpires identify and understand good techniques for umpiring.

Good technique is essential for all umpires to umpire well. It can also reduce the risk of acute or chronic injury. For example an umpire who side-steps down the sideline rather than runs, will be more likely to be slower and behind the line of play. They are also more likely to suffer an injury (such as an ankle sprain) due to the awkward nature of their movement.

This resource also looks at warm-up, cool-down and recovery, technique and core stability – vital components of an umpire's performance that are often overlooked.

For more information and specific physical conditioning programmes for umpires go to [www.netballsmart.co.nz](http://www.netballsmart.co.nz)

## Section One:

# WARM-UP

## Whakamahana

Warming up prepares the body for netball. It improves blood supply to the heart and muscles, increases muscle temperature, makes the muscles more pliable and prepares the body for physical activity.

A well structured warm-up not only prepares the umpire for the game but helps with conditioning and technique. It helps to improve performance and reduce the risk of injury.

The warm-up should take about 20 minutes and be done before every game and training.

The warm-up should include:

1. Aerobic exercise
2. Static stretching
3. Dynamic stretching
4. Anaerobic exercise
5. Netball specific exercises.

## 1. AEROBIC EXERCISE

### Haukori tinana

This part of the warm-up should last at least 10 minutes. Begin slowly and at low intensity, gradually building up. Body temperature will rise slightly and you will probably begin to sweat.

This could include:

- Jogging up or down the court
- Jogging on the spot, running on the spot etc
- Skipping
- Side stepping along the baseline, jogging length of court, running backwards along other baseline, skipping second side line.

## 2. STATIC STRETCHING

### Ka tū ka hōkari

Static stretching of the major muscle groups that are used when umpiring will help to increase flexibility and reduce muscular stiffness and post exercise soreness. Static stretching is most beneficial during the cool-down but can also be used in the warm-up.

- Stretching needs to be slow and gentle.
- Stretch to a point of tension, not pain.
- Hold each stretch for at least 20-30 seconds.
- Breathe normally.
- Static means stationary - DO NOT allow bouncing up and down or stretching rapidly.
- Stretch two to three times on each side if the muscle is very tight.
- Static stretching will help to increase flexibility and maintain muscle balance on either side of the joint. Without stretching, muscles can gradually lose their flexibility and be unable to respond effectively during exercise.

## CALF STRETCHES

### KEY POINTS

Calf muscles are commonly tight in umpires due to the amount of running during a game of netball.

Calf tightness is associated with a number of injuries:

- Ankle injuries
- Achilles injuries/calf injuries
- Shin pain
- Stress fractures.

There are two calf stretches to do:

- 1 Long calf stretch (straight leg)
- 2 Short calf stretch (bent knee)



## LONG CALF STRETCH

- 1 Place hands on wall, with one leg to rear.
- 2 Keep rear leg locked straight and foot flat.
- 3 Turn rear foot slightly inwards.
- 4 Bend front leg, taking stretch through rear calf.



## SHORT CALF STRETCH

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

## QUADRICEPS STRETCH

### KEY POINTS

Tight quadriceps can affect the knee. Knee pain/injury can be related to quadriceps tightness.

### OPTION 1 ►

- 1 Pull heel towards buttock.
- 2 Keep back straight.
- 3 Keep knees together and in line.

*To promote better balance try not to use the post/wall.*



### OPTION 2 ►

- 1 Kneel on sweatshirt.
- 2 Pull heel to bottom and push pelvis forward.
- 3 Keep pelvis facing straight ahead.
- 4 Keep back straight and in neutral position.



# HAMSTRING STRETCH

## KEY POINTS

Tight hamstrings have a negative effect on the lower back. There are a number of variations of hamstring stretches.

### OPTION 1 ►

- 1 Kneel on sweatshirt.
- 2 Keep back straight.
- 3 Ensure hips are facing forward.
- 4 Lean forwards towards feet while keeping back straight.



### OPTION 2 ►

- 1 Place foot on a raised surface.
- 2 Stand with supporting foot turned in slightly.
- 3 Bend supporting knee.
- 4 Keep back straight.



# HIP FLEXOR STRETCH

## KEY POINTS

Flexibility of hip flexors (at the front of hip) is important. If tight they can affect the lower back.

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



# 3. DYNAMIC STRETCHING

## Hōkari mātātoa

Dynamic stretching is important for umpiring. The movements in dynamic stretching prepare the body for the movements performed when umpiring a game. They also help to maintain the increase in body temperature achieved during the aerobic part of the warm up.

Dynamic stretches are smooth, controlled movements where muscles are moved through a full range of motion (ROM). The position is not maintained and the range of motion is gradually increased with each repetition.

Ensure the movement is not forceful and is controlled at all times. A strong body/trunk is to be encouraged.

## SQUATTING

### KEY POINTS

Squatting helps prepare the leg muscles for umpiring. The squatting movement must occur in hip joints as well as knee joints.

- 1 Trunk upright and in the neutral position. Look up.
- 2 Bend at hips and knees and stick bottom out.
- 3 Imagine you are sitting on your toilet or chair.
- 4 Feet shoulder width apart.
- 5 Knees in line with feet.
- 6 Knees not in front of feet.
- 7 Heels on ground.

Do ten squats.



## LUNGING

### KEY POINTS

Lunging also helps to prepare the leg muscles for umpiring.

- 1 Trunk upright and in the neutral position.
- 2 Ensure feet are shoulder width apart.
- 3 Body should be controlled (no swaying of the trunk).
- 4 Bend in hips and knees.
- 5 Knee in line with foot.
- 6 Knee not in front of foot.
- 7 Heel on ground.
- 8 Front knee bent up to 90 degrees (no greater – less if necessary for control).

Do five each leg moving towards the transverse line.



# BENT OVER UPPER BODY ROTATION AND STRETCH UP

## KEY POINTS

This is a generalised body stretch that takes the legs and arms through a large range of motion.

- 1 Keep back straight throughout.
- 2 Bend knee as the weight is transferred over.
- 3 Reach with arm to opposite foot.
- 4 Ensure one knee is always bent.

Do five each side.

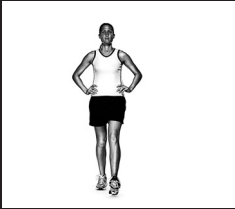


- 1 Reach up high.
- 2 Ensure one knee is always bent.
- 3 Keep back straight.
- 4 Pull in abdominals.

Do five each side.



# WALK, WALK AND STRETCH



- 1 Walk four steps and stretch up and out to the right.
- 2 Keep heels on the ground.
- 3 Repeat the process and stretch to the left.

Do three stretches each side.

## 4. Anaerobic exercise

### Haukori tinana hā ora-kore

The anaerobic part of the warm-up should last at least 5 minutes and is a progression to high intensity activity. It involves a combination of sprints and recovery to prepare the anaerobic energy systems for umpiring.

At the end of this part of the warm-up, you should be breathing slightly harder.

#### OPTION A

Court shuttles

- Sprinting court thirds and returning at a slow jog
- Sprint widths of the court and jog lengths
- Sprint lengths of the court and jog widths

#### OPTION B

Use skipping ropes and skip at an increased speed on the spot.

#### OPTION C

Triangle cone sprints. Place cones in a large triangle. Sprint and jog alternate edges of the triangle.

## 5. Umpire-specific exercises

### Kori tinana motuhake mō ngā Kaitohutohu

Umpires' bodies need to be prepared for a lot of quick change of direction and stop - start movements during umpiring.

Practise the type of movements that will be performed often during umpiring. Make sure these are part of the warm-up before every game and training ensuring good technique is used.

Section 3 of this resource provides detail on basic techniques, skills and movements that can be incorporated as part of the warm-up.

## Section Two:

# COOL-DOWN AND RECOVERY

## Whakamātao hei whaioranga

Cool-down and recovery are very important to help the body recover from physical activity and assist in preventing injury.

Cool-down and recovery involves:

1. Light aerobic exercise
2. Hydration
3. Static stretching
4. Nutrition
5. Treating any injuries.

Cool-down and recovery is not complete until all five recovery processes have been completed. They are all equally important.

Within a tournament environment or when umpiring multiple games in a day, cool-down and recovery are vital.

## 1. LIGHT AEROBIC EXERCISE

### Kori tinana ngāwari

Light aerobic activity helps to assist the body in removing lactic acid (waste product produced in the muscle during exercise).

Light aerobic exercise should start shortly after the final whistle is blown.

Slowly jog three to four lengths of the court and then continue walking on the court for up to five minutes.

If you have to leave the court, as the next game is to begin, then walk to the pavilion or to a central space that can be used as part of the five-minute light aerobic exercise.

## 2. HYDRATION

### Me inu wai

Good hydration will provide; enhanced performance, efficient recovery, reduced fatigue and improved concentration.

Hydration is vital before, during and after the game.

**Pre-hydration (superhydration):** Consume 500-600ml of water two hours before the game.

**Hydration:** Consume 200-500ml during warm-up.  
Consume 150-300ml at a time during breaks.

**Re-hydration:** Consume one to two litres after the game.

Re-hydrating is essential to replace fluids that have been lost during umpiring and is an important part of cool-down.

## 3. STATIC STRETCHING

### Ka tū ka hōkari

Static stretching after umpiring a game of netball is important to increase flexibility and reduce post exercise muscle stiffness and soreness.

Refer to section 1 for further information on static stretching.

## 4. NUTRITION

### Kai tōtika

It is important to eat appropriate food after exercise to replace energy and assist with muscle repair. The body readily absorbs energy in the first one to two hours after activity. If umpiring another game that same day, the first 30 minutes are vital for restoration or energy levels.

The recovery food should consist of:

- Carbohydrate for muscle energy stores
- Protein to aid tissue repair.

The ability to eat food straight after physical activity needs to be trained, as does the ability to drink fluid during physical activity. Practise this during trainings.

Good food to eat immediately after umpiring includes:

- Chewy lollies (ie – jet planes or jubes)
- Carbohydrate drink (ie – Powerade/Replace)
- Banana
- Muesli bar.

Good food to eat 20 minutes after umpiring includes:

- Plain bread roll, banana and flavoured milk
- Ham or chicken filled roll (this contains protein and carbohydrate)
- Muffin and yoghurt.

## 5. TREATING ANY INJURIES

### Whakamaimoa whara

Ensuring that you receive appropriate treatment for any injuries you may have sustained while umpiring is an important part of recovery.

Effective treatment allows a more rapid return to umpiring and helps prevent the injury from recurring.

A first aid kit should be available at all games. Suggested first aid kit contents are:

- Cool pack (or have ice available)
- Band-aids
- Surgical gloves
- Compression bandages
- Towel
- Adhesive / strapping tape
- Antiseptic and saline solutions
- Eye wash
- Scissors
- Sling bandage
- Sterile gauze.

Follow the **R.I.C.E.D.** protocol for all soft tissue injuries – strains, sprains and bruises (for the first 48 hours):

- **REST** – the injured area. This helps to prevent further injury.
- **ICE** – the affected area. Apply an ice pack (or ice wrapped in a damp towel) for 20 minutes. Repeat every two hours for 48 – 72 hours, depending on severity.
- **COMPRESSION** – of the injured area will help to prevent swelling. Keep compression on between icing by applying a bandage.
- **ELEVATION** – of the injured area will help prevent increasing swelling.
- **DIAGNOSIS** – correct diagnosis is important. Get professional medical help if the pain or swelling hasn't gone down in 48 hours.

If any of the following signs are present, seek immediate medical advice from a physiotherapist or doctor:

- Inability to weight-bear
- Lots of swelling
- Reddened area
- Deformation or an odd angle.

Avoid **H.A.R.M.**ful factors for the first three days following a soft tissue injury: **HEAT**, **ALCOHOL**, **RUNNING** (or stressing affected part), **MASSAGE**. These can all increase bleeding and swelling and further damage the affected area.

If back umpiring symptom-free within a week, monitor the injury to ensure there are no further problems.

If the injury does not recover sufficiently to allow return to umpiring during the week but the injury has improved significantly, continue to monitor the improvement. If improvement stops, seek professional advice.

If the injury does not make any, or minimal, improvement during the week, seek professional advice.

## Section Three:

# TECHNIQUE

## Ngā whakahaere

Having good techniques for umpire specific skills is essential to prevent injury and enhance performance on the court.

This section provides advice on correct technique for key umpiring skills and examples of activities to develop these skills.

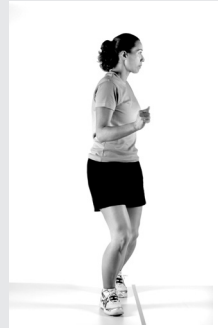
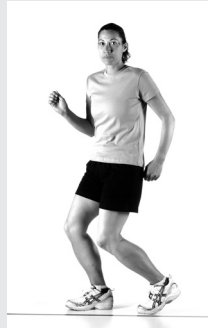
## 1. RUNNING DOWN THE SIDELINE

### – E oma ana i te paetaha

### CORRECT TECHNIQUE ►

#### TEACHING POINTS

- 1 Keep feet facing down court.
- 2 Keep pelvis facing down court.
- 3 Keep tummy button facing down court.
- 4 Rotate towards the court using thorax/ chest region without rotating in lumbar spine/pelvis.
- 5 Turn head towards the court.



### COMMON FAULTS ►

- 1 Using side-stepping instead of running.
- 2 Side-stepping is important for repositioning or pausing along the sideline or goal line. It should not be used instead of running.
3. Rotates thorax and pelvis towards the court.
4. Insufficient thoracic rotation to enable body to adopt the ideal position.
5. Insufficient strength in abdominal region (core stability) to allow stability of lower back and pelvis and rotation of thorax.



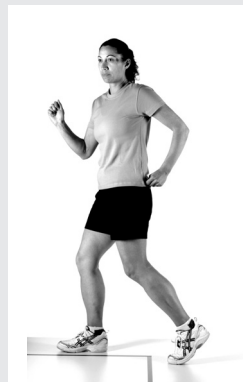
## 2. RUNNING THE CORNER

### – E oma ana i te kokonga

#### CORRECT TECHNIQUE ►

#### TEACHING POINTS

- 1 Increase the speed of the run to move around to the goal line quickly.
- 2 Keep running ensuring feet face direction you are going.
- 3 Keep moving while running the corner, do not pause.
- 4 Rotate towards the court using thorax/chest region without rotating in lumbar spine/pelvis.
- 5 Turn head towards the court.



#### COMMON FAULTS ►

- 1 Side-stepping around the corner.
- 2 Not increasing speed to get around the corner quickly.
- 3 Taking eyes off the play.
- 4 Not rotating trunk enough resulting in poor vision of play.

# 3. PAUSE, PROP AND CHANGE DIRECTION

– Ka tū, ka tītaha, ka whakawhiti atu ki wāhi kē

## CORRECT TECHNIQUE ►

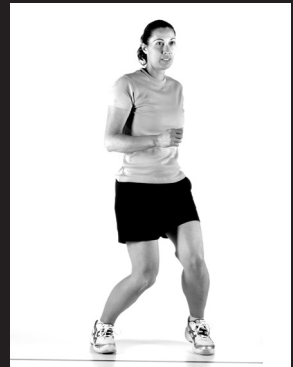
### TEACHING POINTS

- 1 When stopping ensure: head is up, trunk is upright, hips and knees bent slightly, front knee is in line with foot, feet shoulder width apart, equal distribution of weight between both feet.
- 2 To prop the umpire must push strongly off the propping leg.
- 3 Keep head up.
- 4 Trunk must be upright and strong – not wavering.
- 5 Do not let pelvis/hip sag.
- 6 Knee in line with foot.
- 7 Drive off propping leg keeping trunk upright and strong.
- 8 Turn trunk in direction of new movement quickly while keeping vision open to the court.
- 9 Assume position of running down court with thorax rotated as quickly as possible.



## COMMON FAULTS ►

- 1 Head drops to look at the ground.
- 2 During the propping action the trunk and/or hip sags.
- 3 Knee buckles inwards.
- 4 Trunk does not turn quickly enough.
- 5 Eyes lose vision of the court.



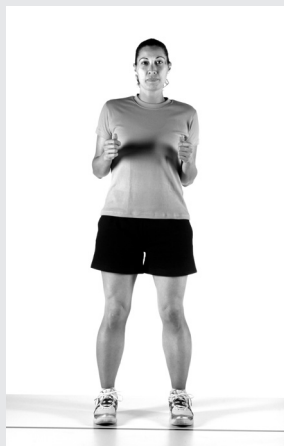
## 4. SQUARING UP AND STANDING TALL

– Te tū tōtika me te tū pakari

### CORRECT TECHNIQUE ►

#### TEACHING POINTS

- 1 Stand tall and straight.
- 2 Weight softly on balls of feet and balanced.
- 3 Knees not in front of toes.
- 4 Trunk upright and strong.
- 5 Shoulders square and open to improve vision of the goal circle and beyond.
- 6 Head and eyes up.



### COMMON FAULTS ►

- 1 Remaining in a semi-squat position.
- 2 Weight too far forward onto toes and knees in front of toes.
- 3 Trunk flexed too far forward.
- 4 Shoulders rounded.
- 5 Head down.



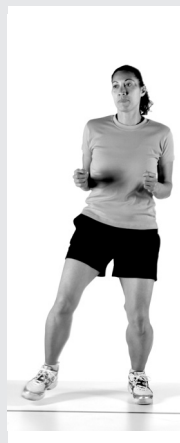
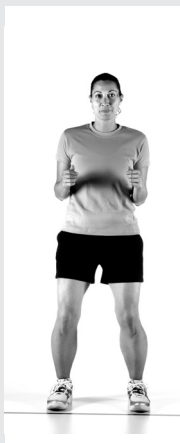
## 5. REPOSITIONING ON THE GOAL LINE

– Te hokinga atu ki te pae ū

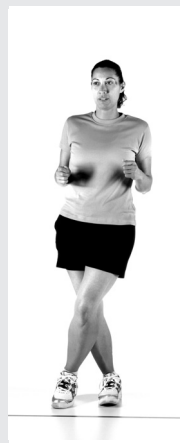
### CORRECT TECHNIQUE ►

#### TEACHING POINTS

- 1 Stand tall in first position.
- 2 If need to reposition use the side-step or grapevine to move with play, not after.
- 3 Move in a controlled and smooth action.
- 4 Assume strong and straight stance again once repositioned.



Side-step



Grapevine

### COMMON FAULTS ►

- 1 Running instead of using the side-step or grapevine to reposition, thus reducing vision.
- 2 Head down or losing sight of play.
- 3 Too slow to react and arriving too late for play.



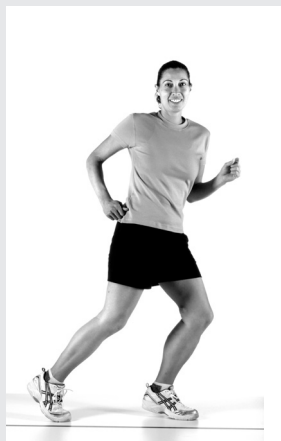
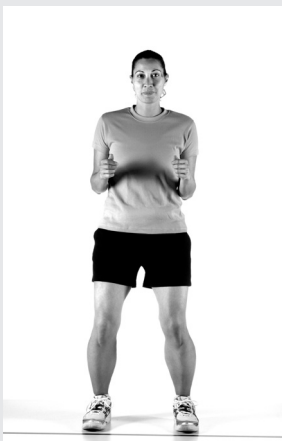
## 6. MOVING OFF FROM A SQUARED POSITION ON THE GOAL LINE

– Te nekenga atu mai i te tūnga pakari i te pāe ū

### CORRECT TECHNIQUE ►

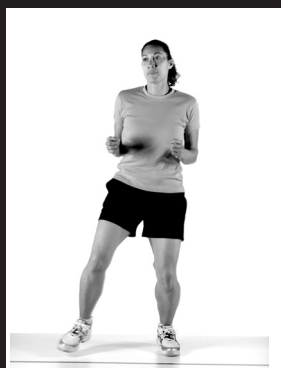
#### TEACHING POINTS

- 1 Must move from standing tall to semi-squat position.
- 2 Turn feet in the direction to run, maintaining thorax/ chest and vision to the court.
- 3 Slightly lean forward in the direction you are moving in.
- 4 Drive strongly off the rear foot and the front foot follows quickly to form next stride.
- 5 Adopt an ideal running position as soon as possible.



### COMMON FAULTS ►

- 1 Square up position is poor.
- 2 Unable to turn feet and hips in running direction and maintain vision to the court.
- 3 Does not drive off the back foot.
- 4 Rocks back onto back heel before taking off.
- 5 Takes too long to adopt ideal running position.
- 6 Uses side-stepping instead of running (especially if the movement of the players is fast – side-stepping is too slow).



# ACTIVITIES FOR DEVELOPMENT

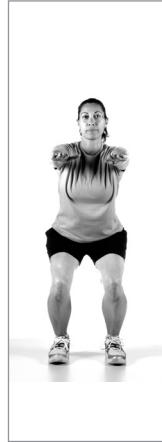
Squatting and lunging are good exercises to practise to improve technique. Practise these in the warm-up or as part of a conditioning programme.

## SQUATTING

A squat is fundamental for the square up position.

### TEACHING POINTS

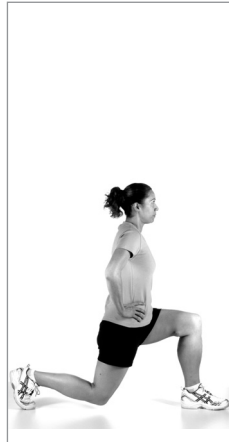
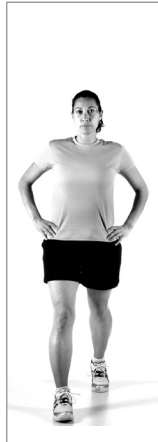
- 1 Do not bend trunk too far forward.
- 2 Bend in hips/knees.
- 3 Feet shoulder width apart.
- 4 Knees in line with feet and not in front of feet.
- 5 Lower bottom like sitting on the toilet/chair.



## LUNGING

### TEACHING POINTS

- 1 Head up.
- 2 Upright trunk.
- 3 Bend at hips and knees to 90 degrees.
- 4 Back knee almost touches ground.
- 5 Front knee in line with, but not in front of toes.
- 6 Feet shoulder width apart.
- 7 Equal distribution of weight between feet.



# 7. CORE STABILITY – Kia tū pakari te tū

## What is core stability?

Core stability involves muscles around the trunk and pelvic region that need to be used when playing sport and in everyday life. With good core stability, the umpire will be more stable while performing all movements, resulting in better technique.

## What does good core stability look like?

An umpire with good core stability may:

- Have good control when landing, turning and stopping
- Be agile and quick with moving and changing direction.

## What does poor core stability look like?

It is easy to identify the umpire with poor core stability – they will walk, stand and generally present their body in a sloppy manner. They often stand by hinging on one leg/hip, with their tummy sagging, and shoulders hunched.

An umpire with poor core stability may:

- Lose control of their footing frequently
- Not be able to keep good vision of the court as they may run with their trunk falling forwards/head down
- Have poor body control when turning and changing direction.

Are you able to think of an umpire with good core stability? And poor core stability? What makes you think that is the case?

It is important when standing to stand tall, strong and evenly on two feet. This is true not only with umpiring but during day to day activity also. This will help to improve core stability and enhance body control.

# ACTIVITIES FOR DEVELOPMENT

## ACTIVATING CORE MUSCLES:

An umpire needs to spend time learning how to activate these muscles before they move on to the specific exercises.

- 1 Lie on back placing fingers on the inside of hips.
- 2 Do a small cough and feel the muscles tighten under the fingers – these are the lower abdominal muscles, which are the main core stabilising muscles.
- 3 Activate these muscles again by reproducing that same sensation but without coughing. Tightening the pelvic floor muscles at the same time may help. These are the muscles that you use to hold on when you need to go to the toilet.

Note: Breathe normally and keep the shoulders relaxed. The low back should stay in a neutral position (ie not curved, but not flat against the floor – somewhere in between).

Once this is achieved, try activating these muscles in different positions (standing, standing on one foot, lunging, squatting).

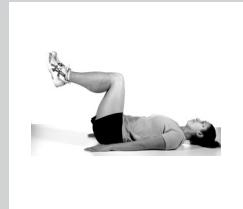
Umpires should be able to activate their lower abdominal muscles with all their umpiring techniques.

## SPECIFIC CORE STABILITY EXERCISES:

Below are some specific exercises to help progress core stability. Practise these on a daily basis.

### 1 LOWER ABDOMINALS KNEE LIFTS

- Lie on back with knees bent.
- Activate the lower abdominal muscles.
- Lift the right leg slowly bending the hip and knee to 90 degrees. Maintain abdominal control while doing this.
- Lift the left leg slowly to the same position.
- Ensure activation of the abdominal muscles is maintained.
- Lower the right leg slowly and then the left leg.
- Repeat 10 times alternating the leading leg.



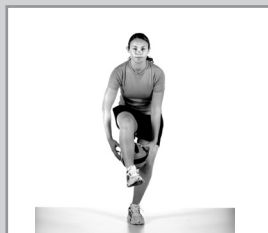
## 2 PRONE BRIDGING

- Lie face down propped up on forearms with toes tucked under.
- Activate the abdominal muscles and come up to a bridging position keeping the back straight.
- Hold for 10-15 seconds. Repeat five times.



## 3 FIGURE OF EIGHT

- Balance on the left leg holding onto a ball.
- Pass the ball under the right leg from the left hand to the right hand.
- Now pass the ball behind the left knee from the right hand to the left hand.
- Repeat five to 10 times then do the same exercise on the opposite leg.



For more information on core stability and full physical conditioning programmes for umpires log onto [www.netballsmart.co.nz](http://www.netballsmart.co.nz)

# NOTES:

# NOTES:



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