



 **NetballSmart**

**UmpireSmart**

**A resource for community umpires**

**ACC SportSmart**



**NETBALL  
NEW ZEALAND**  
POI TARAWHITI AOTEAROA

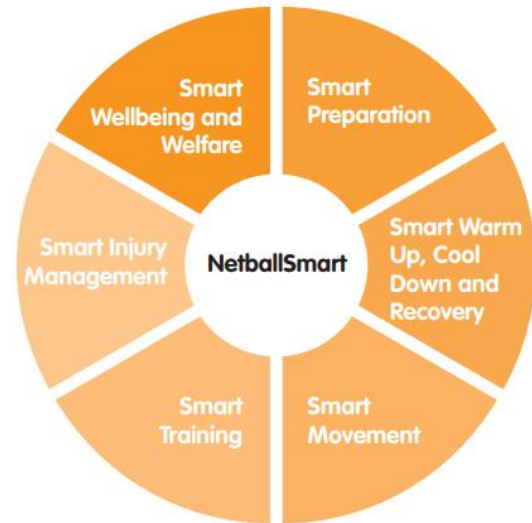
## UmpireSmart Objective

The UmpireSmart resource is specifically designed to assist in improving the performance and decreasing injury risk of all community umpires.

The UmpireSmart resource is based on the 6 NetballSmart principles.

**The aim of the UmpireSmart resource is to support community umpires to:**

- Improve fitness and strength specific to umpiring.
- Prepare their body for the unique movement requirements of netball umpiring.
- Provide practical off court tips to get the most out of trainings and prepare for games.

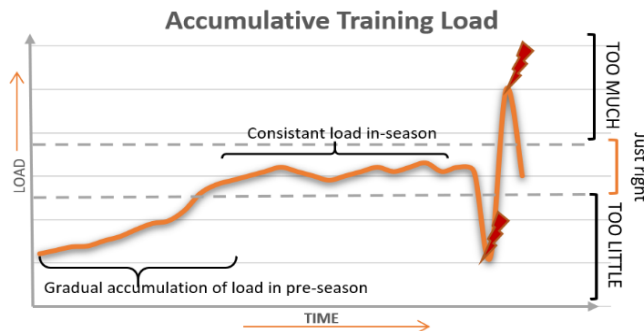


*Figure 1. The 6 NetballSmart principles*

## SMART PREPARATION

### Preparation for the season

- It is important that the umpire is prepared for the unique demands of umpiring.
- Umpiring is a weight bearing activity that includes running, sprinting, side-slipping, stopping and regular changes in direction.
- The preseason programme should include fitness and umpire specific training.
- There should not be a sudden change in loading during pre-season training or in-season activity.
- Ensure all previous injuries have been addressed



*Figure 2. Spikes and dips in the accumulative training load*

## Pre-Season Programme

A 4-6 week home based programme specific to netball umpiring is available at [www.netballsmart.co.nz](http://www.netballsmart.co.nz). The home-based programme incorporates umpire specific skill drills and is designed to improve aerobic fitness, strength, and mobility and flexibility.

The programme also makes provision for two activity levels:

- Level 1 - minimum amount of training
- Level 2 - higher level of fitness and motivation.

Level 1						
Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
Circuit 1 OR Circuit 2	Medium interval (run or bike)	Core and Stability	Circuit 1 OR Circuit 2	Long walk	Medium interval (run or bike) OR Umpire a game	REST OR Long walk (40 - 60 min)

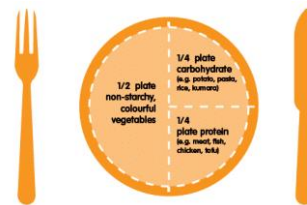
Level 2							
	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
Session 1	Circuit 2	Long interval (run or bike)	Circuit 3	Core and Stability	Circuit 4	Medium interval (run or bike) OR Umpire a game	REST
Session 2			Short Interval (run or bike)	Continuous running		Core and Stability	

### Preparation for a specific training session/game

- Hydration: Ensure you are well hydrated.
- Nutrition: Ensure adequate food to fuel training/umpiring.
  - If activity is within 2-3 hours of a full meal you should have enough energy.
  - If activity is more than 4 hours after a meal you will need a top up with a nutritious snack.
- Shoes: Ensure shoes are appropriate for the session.
  - Running shoes are designed for forward propulsion during straight line activity (cardio sessions).  
A cross trainer (Netball shoe with a running shoe base) is often more appropriate as it is suitable for a degree of running and supports the foot during change of direction activity.

### Balanced Nutrition

- Eat a range of fresh foods.
- What, and how much you need will be different from person to person, so it is best to decide what works for you.
- Cutting out food groups is not healthy (unless you have a medically diagnosed reason).
- It is best to avoid supplements - nutrition is best from fresh food.




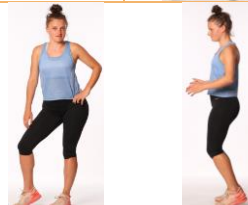
## SMART MOVEMENT

### Umpire specific movement patterns

- There are very specific movements particular to netball umpiring. If these actions are performed well, it can improve movement efficiency, performance and potentially decrease injury risk.

#### Athletic Stable Position (ASP)

This is a typical movement used when moving along the goal- and side-line to view the court

<b>Good Technique</b>	<ul style="list-style-type: none"> <li>ASP- position of readiness allows quick take off and change of direction</li> <li>The weight is carried on the balls of the feet (not toes or heels).</li> <li>Equal distribution of weight between feet.</li> <li>Semi squat position with a slight bend in hips and knees.</li> <li>Shoulders pulled back and down to maximise vision.</li> </ul>	
<b>Poor Technique</b>	<ul style="list-style-type: none"> <li>Weight shifted onto a single leg.</li> <li>Sagging on one hip.</li> <li>Forward on toes.</li> <li>Minimal bend in hips and knees.</li> </ul>	

### Side Slipping

This is an important part of **umpire movement and efficiency is vital.**

Too much bouncing on toes leads to calf/foot tension/stress.

#### Good Technique

- Trunk upright.
- Semi squat:
  - Bend in hips
  - Small bend in knees
  - Knees in line with feet
  - Knees not in front of feet.
- Weight on balls of feet (not toes or heels).
- Moving sideways centre of mass (COM) stays level (no bouncing).



#### Poor Technique

- Legs crossing.
- Not stable on both feet.
- Not in a good ASP.
- Up on toes.



### Running in rotation

Running down the court with feet, knees and hips facing in the direction you are running is efficient. However, to achieve this the trunk must be rotated to the left to ensure full view of the court. To accomplish this umpire must have adequate thoracic (trunk rotation).

#### Good Technique

- Feet, knees, and hips facing in the direction of running.
- Trunk and head rotated inwards towards court.
- Left shoulder retracted (shoulder blades down and back).



#### Poor Technique

- Lack of thoracic rotation.
- Neck rotation only to view the court.





**Align to court/play in an athletic stable position (ASP)**

An athletic stable position (ASP) on the side- and base line

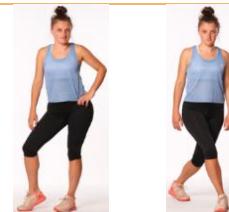
**Good Technique**

- Feet, knees, and hips facing direction of running.
- Trunk and head rotated inwards towards court.
- Left shoulder retracted (pulled back)
- Accelerate and maintain rotation of thoracic spine and vision to the court.
- Stop
  - Bend in knees and hips to absorb forces.
- Align to court in an ASP
  - ASP: weight on balls of the feet (not toes or heels)
  - Equal distribution of weight
  - Semi squat position.



**Poor Technique**

- Sagging on one hip.
- Not stable on 2 feet.
- Crossing the legs when decelerating (stopping).



## SMART TRAINING

### Strength

Strengthening helps to prepare the body to be able to sustain the specific physical demands of umpiring (deceleration, stop, and change direction). During umpiring there is a great deal of lateral (side way) movement. It is important that an umpire develop strength in the muscles that support and control lateral acceleration and deceleration.

The strengthening exercises in the “Home Based Programme” was specifically designed with umpire’s unique neuromuscular strength needs in mind.

### Core and Stability

Developing the body’s ability to be strong in rotational activity is thought to decrease the risk of sustaining chronic injuries. Umpiring at times require rotation of the upper body away from the lower body. These rotations often need to be maintained for a couple of steps. Furthermore, the rotation should be maintained when the body is moving at speed around an arch. These multi-directional movement can increase strain on an umpire’s body that is not conditioned to withstand these unique rotational forces. The **CORE AND STABILITY** exercises in the “Home Based Programme” aim to improve the umpire’s ability to control and decrease rotational forces in this way potentially decreasing injury risk.

### Flexibility

It is important to have sufficient flexibility and length in key muscle groups to be able to umpire well and help minimise injury risk. There are many flexibility components and muscles, and the UmpireSmart resources does not address all of these. However, the flexibility recommendations from the **HOME-BASED PROGRAMME** and the **UMPIRESMART DYNAMIC WARM-UP** aims to address the specific flexibility needs of umpires.

### Fitness

Umpiring is a weight-bearing activity and involves running. It is important that running variations are part of training, to improve fitness, but also to prepare the musculo-skeletal system for the load applied to the body. The **HOME-BASED PROGRAMME** has some running and weight bearing options. The programme also includes umpire specific movement drill to improve both fitness and movement skills.

Preparing for the season is important and needs to be planned. Work to progressively increase the amount of loading your musculo-skeletal and cardiovascular systems are exposed to. If umpires are starting from scratch (no weight-bearing sessions at present) it is important to build up weight bearing sessions gradually over a 6-week period.

## SMART WARM UP, COOL DOWN AND RECOVERY

### NetballSmart dynamic warm up for umpires

Warming up prepares the umpire for the upcoming activity. The UmpireSmart Dynamic warm up is based on current research and best practice in athletic training and injury prevention. The UmpireSmart Dynamic Warm up meets the physiological needs of a warm-up whilst improving strength in key areas and improving umpire specific movement patterns. It is also important to complete the umpire specific movements, strength, and flexibility regularly and incorporate these into both on- and off-court training sessions.

**Training days,** complete sections: RUNNING, DYNAMIC, UMPIRE SPECIFIC and UMPIRE SPECIFIC STRENGTH and FLEXIBILITY

**Match days,** complete sections: RUNNING, DYNAMIC, and UMPIRE SPECIFIC

The umpire specific warm up can be found at [www.netballsmart.co.nz](http://www.netballsmart.co.nz)

The **NETBALLSMART DYNAMIC WARM UP FOR UMPIRES** card accompanies this resource.



### Cool down and recovery.

After any training or game, it is important to cool down adequately to start the recovery process.

Recovery starts as soon as the training/game finishes and continues until the next training and/or game.

The following are all elements that can be incorporated into a recovery plan:

- Active cool down.
- Hydration and nutrition.
- Sleep.

### Active cool down

The following is an example of a post-game cool down protocol you can use after a single game or between games in a typical tournament setting:

- **Walk/ jog for 5 minutes.** Walking keeps the body moving, the blood circulating and aids removal of waste products that may have accumulated during the game or training.
- **Static stretching, dynamic stretching and/or foam rolling.** Focus on the muscle groups that you have used.
- Recovery resources and the NetballSmart **COMBINED STRETCHES AND ROLLER RECOVERY** sheet can be found on [www.netballsmart.co.nz](http://www.netballsmart.co.nz)

### Post-activity fluid

Hydrating post activity is important. Ideally, an umpire should consume enough fluid during breaks (in the case of a game) and training to maintain hydration. Being dehydrated can have a negative effect on performance. Water is best for re-hydration. Carbohydrate drinks (typical sports drinks) are only necessary if you exercise for **over an hour** at a **very high intensity**. The average 40-min weekend game does not require the intake of a sports drink. Essentially it can be classified as unnecessary calories and has a negative impact on teeth hygiene. One bottle of a typical sports drink has the same sugar as 12 chocolate chip biscuits!

Here are some tips to avoid dehydration:

- Ensure you have water to consume before, during and after training/game.
- Drink water during the day leading up to a training/game so you are well hydrated prior to the game/training.

### Recovery/Post activity food

Recovery food is used to replace the energy and fluid and to start the restoration of muscle and liver glycogen (energy). In addition, it boosts the immune system to counteract the stress induced by the activity. Recovery food also helps muscles and soft tissue to repair and adapt to training stress and load.

Immediately post exercise and within the first hour of finishing, umpires are encouraged to eat a carbohydrate rich snack or meal (1-1.2 g of carbohydrate per kg body weight). Here are some options of CHO-protein recovery snacks (50g CHO + valuable source protein) for a 60kg athlete:

*Table 1. CHO and CHO-protein rich recovery snack recommendations for a 60kg athlete*

Snack	Quantity Recommended for 60kg athlete
Fruit juice	600ml
Slices of toast with jam/honey or banana	2.5 slices
Vegetable soup	1.2 cups
Muffin	1 ½ large
Liquid meal supplement	300ml
Creamed rice	360g
Low fat flavoured milk	720ml
Cereal and milk	Larger bowl
Bread roll with cheese and meat filling and 1 banana	1 Large bread roll, 1 Large banana

### Sleep

Sleep has a direct relationship with physical performance. Capitalising on the restorative power of sleep will help maximise energy, mood, decision-making skill, and reflex response. In addition, adequate and quality sleep will reduce the risk of overtraining/under-recovery, enhance resistance to illness and improve recovery from injury.

### Sleep length

For sleep to be beneficial, it must be of adequate duration. Sleep requirements change over the course of an individual's life; the amount of sleep required. For example, 16- to 22-year-olds need about 9 to 10 hours per night. Naps can count towards total sleep time but should be restricted to 30 minutes and scheduled between 2 to 4 pm.

### Benefits of adequate sleep

- Increased ability to train.
- Maximises training response
- Maximises performance
- Maximises recovery
- Regularly getting more than 8 hours sleep, 5 days a week can decrease injury rate by up to 60%.





## SMART INJURY MANAGEMENT

### Injury

Injuries are part of sport and often occur. Acute injuries occur in response to a sudden external load. Simple and sound acute injury management can often decrease the long-term effect of these injuries.

### Acute Injury Management

#### Protect



Stop what you are doing immediately.

#### Rest



Rest the injured area. You may be able to exercise in a moderated way as long as it does not impact on recovery.

#### Ice



Ice the injured area for 15-20mins every 2-3 hours for up to 48 hours.

#### Compress



Use an elastic bandage to reduce the amount of swelling, make sure you take this off when you sleep.

#### Elevate



Raise the level of the injured area above your heart level, i.e., lying on the couch place pillows under the injured area.

#### Diagnose



Seek professional help from either a Physiotherapist or a Doctor.

## Return to play

- ALWAYS stick to the plan your medical professional has created for you. Do not be tempted to return to play too early.
- If injured you need to gradually return to training, then progress into competitive umpiring, guided by a medical professional.
- Use the **UMPIRESMART DYNAMIC WARM UP** to test readiness to umpire. If you cannot complete 100% of the warmup at 100% intensity, then you are not ready to return to training or umpiring

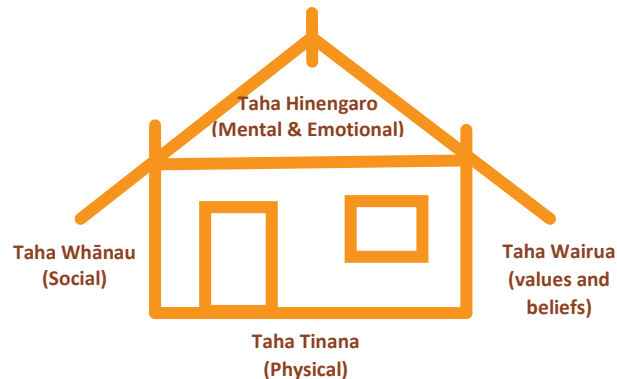


## SMART UMPIRE WELLBEING

Smart Umpire wellbeing ensures the overall wellbeing (health and happiness) of each umpire. Having a holistic view will encourage the importance of Hauora. It is important to consider the importance of Hauora to ensure the umpire stay engaged in netball umpiring, for life.

Hauora principles include:

- Taha tinana - Physical well-being
- Taha hinengaro - Mental and emotional well-being
- Taha whānau - Social well-being
- Taha wairua - Spiritual well-being



More information regarding Hauora principles refer to the Minisiteriy of Education information on [Well-being, hauora](https://health.tki.org.nz) website at <https://health.tki.org.nz>

## Managing load for adolescent athletes

To ensure lifelong engagement in sport specialisation is discouraged at a young age. Early specialisation is linked with increase in dropout and injury rate. Playing and taking part in a variety of sport helps to develop movement, a variety of skills and enjoyment of several sports. Netball New Zealand have developed player development guidelines that provide a clear and gradual progression in both the frequency and duration of practices/games dependent on age and experience.

Although there are no guidelines specific to umpires. If umpiring is done at intensity, it can be considered a sport, accumulating to Netball hours. Therefore, the same loading guidelines applied to adolescent netball players may also apply to adolescent athletes who are umpiring netball and/or playing netball.

### 13-15-year-olds

<b>Max Netball hours per week = 8</b>			
<b>3 Netball Contacts per week</b> (6 hours at maximum which includes 1-2 games; 1-2 team sessions)		<b>1 other sport in season</b> 2 sports out of season	
<b>1 full rest day</b>	<b>Limit of 2 full games per week</b>	<b>2 Hours Support activities* (in season)</b> 4 hours out of season	<b>No more than 2 netball sessions in 1 day</b>

### 16-18-year-olds

<b>Max Netball hours per week = 14</b>			
<b>4-5 Netball Contacts per week</b> (10 hours at maximum which includes: 1-2 games; 1-2 team sessions; 1-2 individual sessions)			<b>1 other sport</b>
<b>1 full rest day</b>	<b>Limit of 2 full games per week</b>	<b>4 Hours Support activities*</b>	<b>No more than 2 netball sessions in 1 day</b>

# My Smart Roadmap

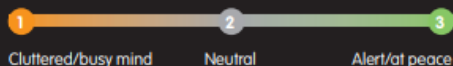
My Smart Roadmap is designed to help players take responsibility for their own wellbeing and recovery to ensure they are keeping a good training/life balance. In each section check in on yourself by marking either a 1, 2, or 3.

- 1 Over stressed. Pick two options from that category that fits into your day. 2 Mildly unbalanced. Pick one option from that category that fits into your day.  
3 Well balanced and ready to go. No actions needed.

## Smart Mind Balance

Ensure you have a clear mind. Where are you sitting mentally today, is your mind cluttered?

### How do you feel?



#### Meditation

Take 5–10 minutes out of your day to focus on your breathing and relax your mind.



#### Positive Connection

Put aside some time in your day to have a positive connection with family or friends. This may just be 30 minutes over a coffee.



#### Enjoyment

Take some time to do something you love! This could be art, baking, building, reading. This is "you time".



#### Get Outdoors

Take some time to remove yourself from it all and get some fresh air. This could be at the park, the beach, gardens, whatever works for you.



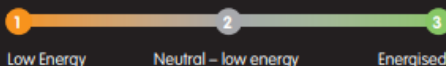
#### Plan

Sit back from it all and organise your thoughts. This could be by creating a 'To Do' list or setting small goals.

## Smart Body Balance

How energised are you feeling today? Make sure you have done everything you can to look after your body.

### How does your body feel?



#### Sleep

Aim to get 9–10 hours sleep tonight or have a 30 minute nap between 12–4pm to make up for lost sleep.



#### Screen Time

Minimise your screen time. Take an hour to put down all devices. This may also help with sleep quality.



#### Hydration

Make a conscious effort to drink at least 2 litres of water. Training or games may require you to drink more. Guidelines are in Smart Preparation on the NetballSmart website.



#### Nutrition

**ENERGY IN = ENERGY OUT.** Take a food diary to ensure you are fuelling yourself for what your day brings.



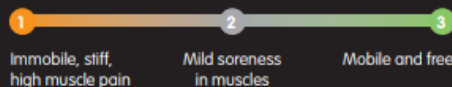
#### Hygiene

Do something that makes you feel clean and relaxed. e.g. tidy/organise your room or desk, hot shower before bed.

## Smart Training Balance

Listen to your body and make sure you do what you can to look after it.

### How do your muscles feel?



#### Stretch Session

Incorporate a 15–30 minute stretching session into your day. Guidelines can be found on the NetballSmart website.



#### Foam Rolling

Release affected muscles by incorporating a foam rolling session into your day. Guidelines can be found on the NetballSmart website.



#### Massage

Massage is a good option for muscular release if foam rolling is not an option. This can be either self-administered or administered by somebody else.



#### Active Recovery

Go on a light walk or bike ride to increase blood flow and relieve stress in muscles.



#### Pool Recovery Session

Have a 30 minute pool session. This can aid mobility without putting excess stress on muscles and joints. May also help induce fatigue to help sleep quality.

