

# Top Physio tips to prevent basketball injuries – 2019

Like any sport, there is a risk of musculoskeletal injury in basketball. Most injuries in basketball can be either classified as overuse or traumatic. In basketball the majority of injuries are acute in nature, which refers to an injury that occurs suddenly, for example an ankle sprain (Drakos, et al. 2010). The second type of injury; the overuse injury, is caused by repeated activities, and is often associated with a sudden dramatic increase in exercise.

Due to the high impact, fast paced nature of basketball, injuries to the lower limb are the most prevalent, with most injuries occurring around the ankle and knee joints.

## Reducing the risk of injury in basketball players

### Effective player conditioning and warm-up protocols

The risk of musculoskeletal injuries in basketball players can be significantly reduced through appropriate training methods. Both FIFA and [Netball Australia](#) have implemented training programs that aim to reduce injuries to the lower limb through improving player proprioception and neuromuscular control.



To put it simply, these training techniques aim to improve player technique and optimise targeted muscle activation in

order to reduce injury (FIFA, 2017). These interventions have been widely celebrated as successful; with some studies quoting a reduction of up to 50% of ACL injuries and 39% of all injuries in soccer players.

Furthermore, these benefits aren't restricted to soccer, with a study identifying significant reductions in lower limb, trunk, hip, and groin injuries in basketball players who regularly performed the [FIFA 11 plus](#) warm up program (Longo, et al. 2012).

There are 3 Components to the FIFA 11+ warm up and these are:

- Running Exercises
- Strength, Plyometrics, Balance
- Further running exercises

If you would like to view this protocol, please click [here](#)



### **Foam Rolling**

Foam rolling works by placing direct and sweeping pressure on the soft tissue targeted. Foam rolling helps to increase range of movement, reduce pain, and reduce the severity of DOMS (delayed onset muscle soreness) (Cheatham, Kolber, Cain &

Lee, 2015). Foam rolling has been shown to be particularly effective in the first 1-2 days following exercise (Pearcey, et. Al. 2015).

### **Taping and Bracing**

Taping and bracing helps to reduce risk of injury by providing support to an injured joint. Depending on the type of bracing or taping applied, is dependent on what type of benefit is achieved. Different benefits include improving proprioception, decreasing mobility and increasing stability of an injured or

unstable joint.

### **Physiotherapy**

Finally, if a player has suffered an injury during training or a game, there may be further contributing factors that your physiotherapist can address. Reviewing with your physiotherapist following an injury will help to ensure the fastest and safest return to sport!

To make an appointment, click [Book Now](#) or call 9789 1233

### References:

Cheatham, S. W., Kolber, M. J., Cain, M., & Lee, M. (2015). The effects of self-myofascial release using a foam roll or roller massager on joint range of motion, muscle recovery, and performance: A systematic review. *International Journal of Sports Physical Therapy*, 10(6), 827-38. Retrieved from <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4637917/>

Drakos, M., Domb, B., Starkey, C., Callahan, L., & Allen, A. (2010). Injury in the national basketball association: A 17-year overview. *Sports Health*, 2(4), 284-90.

FIFA (2017). FIFA 11+. Retrieved from <http://www.footballfedvic.com.au/fifa-11plus/>

Longo, U., Loppini, M., Berton, A., Marinozzi, A., Maffulli, N., & Denaro, V. (2012). The FIFA 11 program is effective in preventing injuries in elite male basketball players. *The American Journal of Sports Medicine*, 40(5), 996-1005. doi: 10.1177/0363546512438761

Pearcey, G., Bradbury-Squires, D., Kawamoto, J., Drinkwater, E., Behm, D., & Button, D. (2015). Foam rolling for delayed-onset muscle soreness and recovery of dynamic performance

measures. Journal of Athletic Training, 50(1), doi: 10.4085/1062-6050-50.1.01.

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# **Meet our 'Netball Australia KNEE Program' endorsed Physiotherapist – 2019**

Knee are the most commonly injured body part of netballers. Injury to one of the major stabilisers of the knee, the Anterior Cruciate Ligament (ACL), is a common problem, annually representing approximately 25% of serious injuries (Netball Australia National Insurance Data). The Netball Australia KNEE Program was developed with the support of the Australian Institute of Sport and is designed to reduce the incidence of these injuries occurring.

Recently Netball Australia announced that as part of the KNEE Program, it is looking to establish a network of physiotherapists proficient in delivering the program nationally. The completion of a course run by Netball Australia qualifies the physiotherapist as an Endorsed Provider of the program.

**We are pleased to announce our Netball Australia KNEE Program endorsed Physiotherapist – [Emma Iacovou](#)**



EMMA IACOVOU

[Emma](#) is an experienced Physiotherapist and netball player. She currently treats many of the [Peninsula Waves](#) players and is passionate about the prevention of knee injuries in netball.

### **WHAT IS THE KNEE PROGRAM?**

The KNEE Program is a warm up program designed to enhance movement efficiency and prevent injury. It targets how to land and how to move safely and efficiently.

Whether you are a coach to your child's netball team, high performance coach, support staff or parent, this program is designed to keep your players on the court for longer and moving more efficiently when there.

As an athlete this program aims to keep you playing the sport you love without being sidelined by injury.

### **WHO SHOULD DO IT?**

Three tiers have been devised to target all netball populations:

- Junior (11 – 14 years)
- Recreational (14 years and above)
- Elite (players who have been identified in the Talent, Elite and Mastery category of Netball Australia's Player Pathway)

## **WHY DO IT?**

The KNEE Program is based on programs that have been proven effective in reducing lower limb injuries generally and specifically reducing ACL injuries from 40-70%. It will also improve the efficiency of movement on court.

## **HOW LONG DOES THE PROGRAM TAKE?**

The program should take no more than 10–12 minutes to complete. Research indicates it needs to be done for a minimum of 10 weeks, 2-3 times per week to be most effective.

**For more information or to make an appointment with Emma you can [BOOK ONLINE](#) or call Langwarrin Sports Medicine Centre on [9789 1233](tel:97891233).**

*\*Information above has been adapted from information provided at [www.knee.netball.com.au](http://www.knee.netball.com.au) and [www.netball.com.au](http://www.netball.com.au)*

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# **Why your landing technique in netball is so important in preventing injury – 2019**

The Waves, Physiotherapists, [Emma Iacovou](#) teaches the girls the technique behind how to jump, land effectively, decelerate and change direction based on the guidelines set out by the [Netball Australia 'KNEE Program'](#).

Emma has a passion for netball and has played for Peninsula Waves in the past, so it's great to combine her passion for

netball with her knowledge as physiotherapists to help ensure netballers continue to play the game they love for as long as possible.

## **Why is injury prevention in netball important?**

Netball has one of the highest injury rates per participant of any sport (Fong, 2007). At both an elite and junior level netball injury prevention is vital. During this dynamic fast paced sport, the body is exposed to high forces contributing to lower body injury rates (Mothersole, 2013). A staggering 85% of netball injuries occur at the knee and ankle, of this 45% of these injuries occur during landing (Netball Australia Personal Accident Insurance 2010-14). These statistics highlight just how important the correct jumping and landing technique is to enhance performance and prevent injury.

Conditioning and technique training to effectively mitigate injury risk and improve performance is particularly important amongst the female population (Mothersole, 2013). Recent figures show females are 4-6 times more likely than males to rupture the anterior cruciate ligament (ACL), and it is estimated that as high as 25% of all major injuries in netball are attributed to ACL alone (Netball Australia, 2017). For netballers this means a costly injury that can result in more than 12 months away from the netball court.

## **How can you reduce your risk of an injury during netball?**

Netball Australia have developed The KNEE Program, aiming to prevent knee injuries from occurring by optimising technique and enhancing efficiency of movement in netball specific landing, change of direction and deceleration. The KNEE program is an adaptable, evidence based, warm up program designed to be implemented at all netball levels; children, recreational and elite.

Below is are some of the key principles as set out by the KNEE

PROGRAM which outline how to perform a jump and landing with good technique that, when practiced and implemented, aims to significantly reduce the likelihood of an injury during netball.

## Jump Take Off



- Feet shoulder width apart
- Feet facing forwards
- Hips Bent
- Knees Bent
- Knees in line with feet
- Use arms to drive momentum

## Jump Landing



- Hips bent
- Knees bent
- Roll down through feet
- Feet straight ahead
- Knees in line with feet
- Trunk Stable

Studies show that by implementing specialised training programs, such as the KNEE program, injury rates can be dramatically improved. These programs can reduce lower body injuries by up to 50% (Netball Australia, 2017). Furthermore, employing this program as a part of your own training has been found to improve performance measures. This is supported by Hopper et al (2017) whom found a 6 week injury prevention

program improved speed, agility, power and balance outcomes. For greatest effect, these programs need to be performed total of > 30 minutes per week (Sugimoto et al, 2014).

It is never too early or late to start implementing this program as a part of your netball routine. For more information on how to include The KNEE program in your training session or warm up click on the following link : <http://knee.netball.com.au/>.

For more information or to book an appointment contact your [local clinic](#) or [Book Online](#).

## **References**

*The KNEE Program. Retrieved From: <http://knee.netball.com.au/>*

*Fong D, Hong Y, Chan L-P, Yung P, and Chan K-M. A systematic review on ankle injury and ankle sprain in sports. Sports Med 37: 73-79, 2007*

*Hopper et al (2017). Neuromuscular training improves movement competency and physical performance measures in 11-13-Year-Old female netball athletes, Journal of strength and conditioning Research. 1165-1176, 31(5)*

*Mothersole, G. (2013) Ground Reaction Force Profiles of Specific Jump-Landing Tasks in Females: Development of a systematic and progressive jump landing model, Faculty of health and Environmental Sciences. Retrieved from <http://aut.researchgateway.ac.nz/bitstream/handle/10292/5695/MothersoleG.pdf?sequence=3&isAllowed=y>*

*Sugimoto, et al. (2014). Dosage effects of Neuromuscular training intervention to reduce anterior cruciate ligament injuries in female athletes: Meta-and-sub group analyses, Sports Medicine. 551-562, 44(4)*

*Netball Australia <http://netball.com.au/>*

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# FOOTBALL BOOT REVIEW 2019

## CORE PODIATRY GROUP FOOTBALL BOOT REVIEW 2019 @ Peninsula Sports Medicine Centre

written by SPORTS PODIATRIST Paul Karak and Matthew Gamble

FOOTBALL 2019 has seen some big changes in weight, stiffness and ultimately performance of the football boot. Choosing a boot this year gets trickier, but with help from Core Podiatry Group located @ PSM Group Langwarrin & Rosebud, and clinics in Cranbourne and Warragul too, we can help you select the right boot for your needs – ultimately preventing injuries that may have developed due to poor boot selection.

Below is a summary of some of our favourite football boots for 2019. This summary will provide you with a basic insight into footwear technology and models currently available.

### Asics Gel Lethal Ultimate FF

Size 7-12, 13,14,15

RRP-\$ 220.00

The Gel Lethal Ultimate is a very well positioned shoe to protect the footballer from many impact-related injuries due to its full length 10 mm pitched cushioned Flytefoam Midsole. It's Solyte Outsole has great torsional stiffness and good traction. It has great forefoot cushioning – something that no other brand of football boot has. It can fit an orthotic well with a deep heel counter and is our recommendation for the athlete returning from injury or with a long history of lower limb injuries, or playing on hard turf surfaces. Suits a wider foot

### Asics Tigroer IT (FF / ST)

Sizes 8-12,13,14,15,16,17

RRP-\$240.00

The Tigreor positions itself well as a more performance-based football boot weighing 250 grams, but with still some protective cushioning and a 10mm pitched flyte foam heel. It too has a deep heel counter to fit an orthoses and a firm /stiff last to protect the joints of the feet when running and changing direction. The upper is made of kangaroo leather too making it an extremely comfortable shoe. A real favourite of ours. A lower pitched shoe than Asics other boots.

Asics Lethal Flash IT

Sizes 7-12, 13,14,15

RRP \$ 160.00

The Lethal Flash is a great entry football boot for Asics weighing in at 270 grams. It accommodates an orthoses well with its deep firm heel counter and with the addition of the HG 10mm pitched midsole, it protects the footballer from impact-related injuries. Its rear foot cushioning makes it an extremely comfortable football boot too. Its outsole plate has excellent torsion stiffness and is very responsive. The upper is made of calf leather that resists water well but does not slip when ball contact is made. Moulds well to foot. It is available in 3 colours which widen its appeal too.

Asics DS Light 3

Size : 6-12,13,14

RRP \$ 200.00

The DS Light is a very lightweight and responsive boot with a Kangaroo leather upper/ Japanese synthetic leather for extreme comfort, yet stability. It is for the traditionalist with a zero grade midsole platform (no pitch) which separates it from all the other Asics boots. Not suitable for athletes with achilles or calf problems. Available 2 colours

Adidas predator 19.3 FG

Size :7- 13

RRP \$ 129.00

The adidas predator is consistently a great boot. Its upper consists of a moulded firm deep heel (like the 18.3) that

offers a snug fit for instinctive movement. Its upper although synthetic, is comfortable and has a snug elastic sock like fit . It is however a tighter fit than its previous 2018 model along the top of the foot and wouldn't suit people with a high arch. It still provides improved ball handling than other branded boots, but not the texture of the 19.1 Again, it's a zero grade platform unlike the Asics but it has great torsional stiffness (better than the 19.1) through its midsole.

Copa Gloro 19.1 and 19.3

Size: 7-13

RRP \$ 259.99 and \$99.99

Constructed with a kangaroo leather upper, the copa has a comfortable sock like fit and lacing system that wraps the foot for a snug, supportive fit. The Copa is available in two colour ways and has Control Vamp technology for enhanced ball contact and guide – a nice re-introduction to the adidas range. It has a wide fit toe box and features a POLYAMIDE constructed midsole for a light (230g) yet very stiff responsive feel. It has a zero drop platform like all adidas boots and would not suit an orthoses as its heel counter is too soft.

Puma Future 19.3 NETFIT FG / AG

Size: 6-11,12,13

RRP \$ 119.99

Puma's Future 19.3 and 19.4 are great performance boot. They have a firm, deep heel counter to accommodate an orthoses, and has torsional stiffness through its midsole to protect the foot when changing directions. Its netfit synthetic upper appears inflexible so ensure the fit is right. Its only negative would be its performance in the wet, appearing slippery on its upper when water and ball contact is applied. It is very light weight and responsive and it has a hybrid stud configuration that makes it suit most ground surfaces. It has a zero drop platform like the adidas range. (AG –

artificial ground)

PUMA One 19.3 FG

Size: 7-11,12,13

RRP \$ 110.00

Puma's 18.3 is a great entry level boot by PUMA. It has a firm, deep heel counter to accommodate an orthoses, and has torsional stiffness through its midsole to protect the foot when changing directions. Its heavier and a little less stiff through the midsole than the Future 18.1, but It has a full grain leather upper making its fit extremely comfortable. The hybrid stud configuration is similar to the 18.1 that performed well on most surfaces. It can fit an orthoses with good depth and a firm heel counter. It has a zero drop platform

Asics Testimonial 4 IT

Size: 7-12,13,14

RRP \$270.00

Asics Testimonial is a great all-round boot. It can accommodate an orthoses (although narrow through the arch of the boot) and is a lightweight boot coming in at 235 grams. It measures 12mm from the ground and has a solyte midsole for cushioning. Its upper is soft and conforming made of kangaroo leather. It is available in 4 colours.

For further information or bookings, please contact Core Podiatry:

**Langwarrin (03) 9776 5576**

**Rosebud (03) 59 86 3655**

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