



**Prize Winner**

# Science Writing Year 3-4

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### Avoiding Sporting Injuries

By Lachlan Edwards

#### BREAKING NEWS

It's official! The 2031 World Sport Championships will be held in Adelaide, on 9 - 29 June 2031, as a lead up event to the 2032 Brisbane Olympics!

Some of the Adelaide people expected to be part of the event include up and coming tennis star, Aiden Lim (17 years old), AFL Port Power Physiotherapist, Michael Heynen, and American professional basketball coach and former player, who won the NBL Coach of the Year 3 times, Joey Wright!

The excitement is building but injuries are a huge concern.

Australia currently has no government data collection on sporting injuries that can provide information on how to avoid them. To change this, the 2022-23 Federal Budget announced that Australia will invest \$2.8 million over 4 years to develop a national sport injury database. In March 2023, the government released its National Sports Injury Data Strategy which has a plan to create a National Sports Injury Data Asset (NSIDA). The NSIDA will provide new sports injury data to help with research and prevention programs.

Until the NSIDA is created, limited information is available, but my interviews with the Adelaide experts indicate the main ways to avoid sporting injuries are:

- **Warming up before exercise or sporting activity.** Warming up is important because it increases body temperature, increases blood supply to the muscles, warms up muscles so they can work better, loosens joints, connects the brain to the body and slowly increases heart rate, which reduces stress on the heart. Your performance will be better, faster, and stronger, and you will be more mentally and physically prepared.
- **Stretching before and after exercise.** Stretching is important because it helps the muscles be flexible and healthy and have a range of motion in the joints. If you don't stretch, the muscles become tight and shorten, increasing the risk of joint pain, strains and muscle damage.
- **Eating a healthy well-balanced diet.** It is important to give your body the energy and nutrients it needs to be able to perform its best. If you are pushing your body to its limits and burning a lot of energy, you need to have a diet that helps with this. The right vitamins and



Aiden Lim, 17 year old SA Tennis Champion (photo courtesy of Aiden Lim)

minerals can strengthen your tendons and ligaments and lower the risk of muscle strains. It will also keep your bones strong and make them less likely to break.

- **Getting enough sleep.** Sleep studies have shown that athletes that get enough sleep time will be more protected against injuries, have better concentration, reaction time and performance.
- **Recovery and relaxation time.** Rest time helps your body recover and repair. Tiny rips in the muscle occur during exercise. Resting will help the muscles heal and grow stronger.
- **Staying hydrated (drinking enough water).** Your body is about 60-65% water. During exercise you will lose water through sweat. You can become dehydrated and not function properly. Dehydration can cause cramps, cartilage damage and friction in the joints.

Muscle strains are injuries to a muscle or tendon, which is the fibrous tissue that connects muscles to bones. Muscle strains can occur when your muscle stretches beyond its normal range of motion causing an overstretch in minor cases, or a partial or complete tear in severe cases. Usually strains occur in legs, ankles, hands, or elbows.

For example, tennis elbow can happen when you straighten and bend your wrist and arm and overuse it.

Tennis champion, Aiden Lim, believes the best way to avoid muscle strains, like tennis elbow, is to "stretch before and after tennis. Spend around 15 minutes warming up and cooling down. You need to make sure you don't overuse your muscles too."

Michael Heynen, AFL Port Power Physiotherapist, provides each player with an injury prevention plan based on their individual needs. The plan sets out the exercises and stretches that the player must follow. Mr Heynen believes that players "tend to get less injuries if they follow the prevention plan".

Did you know that the most common sporting injury is muscle strains?

Concussion injuries can be reduced by avoiding collisions on the head, for example, head-to-head, arm to head, or foot to head. However, my research showed different opinions on whether you can prevent concussion.



Joey Wright, American professional basketball coach and former player (photo courtesy of Joey Wright)

Joey Wright, American professional basketball coach and former player, believes “concussion may not be preventable, but you can treat it.”

Mr Heynen tries to reduce the risk of concussion by including neck strengthening exercises in his prevention plans.

Joey Wright “helps young basketballers realise their dreams by teaching them to be better at the basic fundamentals... but to be successful, it is critical to prevent injuries through warming up, stretching, and proper diet”.

The World Sport Championships opening ceremony will be held on 9 June 2031. There are still some tickets left through Ticketek, but you must be quick!

The events include tennis, AFL, basketball, soccer, and swimming.

If you are planning to try out for the Championships, contact SA Sport for more information. Keep up your training and make sure you avoid sporting injuries by doing stretches, drinking enough water, eating healthy food, sleeping, and most of all, having fun!



Michael Heynen, AFL Port Power Physiotherapist (photo courtesy of Michael Heynen)

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