



## “Titled and Specialist Sports and Exercise (SPEX) Physiotherapists work with all athletes from the weekend warriors to Olympic athletes”

SPEX physiotherapists are healthcare professionals who specialise in the treatment of sports-related injuries. The title of Sports and Exercise Physiotherapist is awarded to physiotherapists who have completed significant additional training beyond their physiotherapy degree.

They have a deep understanding of human anatomy, biomechanics and physiology, and they use this knowledge to accurately diagnose and treat musculoskeletal injuries.

SPEX physiotherapists have highly developed diagnostic skills – they look beyond the injury to understand any deficits or training errors that may have contributed to the injury in the first place. They use advanced clinical reasoning to determine the optimum treatment and appropriate exercise program for both rehabilitation and prevention of injuries.

SPEX physiotherapists have an extensive knowledge of exercise including exercise physiology and strength and conditioning principles. In addition to providing treatment, SPEX physiotherapists also play a critical role in injury prevention and performance enhancement by identifying potential risk factors and implementing preventive measures.

**Physiotherapy plays a crucial role in the recovery process following an injury. Here are some benefits of having a Sports and Exercise Physiotherapist prescribe exercises after injury.**



### **Efficient recovery:**

Engaging in physiotherapy soon after an injury can result in a more efficient recovery, actively preventing long-term sequelae in a number of conditions including ankle sprains<sup>1</sup> and knee injuries.<sup>2</sup>

### **Improved daily living activities:**

Physiotherapy helps patients regain and improve their pre-injury capabilities, significantly improving their daily living activities in a variety of musculoskeletal conditions.<sup>3-5</sup>

### **Sustained improvements:**

Specific exercise programs have been associated with sustained improvements in physical performance and the prevention of further injuries.<sup>6,7</sup>

### **Holistic approach:**

Physiotherapists tailor treatment plans to aid recovery, considering physical, emotional, and social aspects of rehabilitation.<sup>8,9</sup>

### **Pain management:**

Physiotherapists use techniques such as manual therapy and therapeutic exercises to reduce pain and discomfort associated with injuries.<sup>2,10,11</sup>

## What is exercise therapy?

Exercise therapy is defined as a form of physical activity that is prescribed and progressed to achieve specific therapeutic goals. Within physiotherapy, it is typically utilised as part of a multimodal approach in the management of musculo-skeletal injuries, functional disorders and other disabilities.

## Objective measures guide rehabilitation

Sports and Exercise Physiotherapists utilise the most up to date objective measurable technology such as dynamometry to quantify progress in a patient's recovery. Accurate interpretation of results helps to tailor and individualise exercise and rehabilitation programs to achieve superior results through each phase of their recovery. This includes planning return to activity, load management, and rehabilitation to avoid recurrence of the injury or deterioration.

# SPEX physiotherapist's approach to exercise prescription

## Individualised prescribed exercises

based on a comprehensive assessment, clear diagnosis, specific deficits and goals.

## Targeted exercise

to the tissues that need loading while balancing between not enough and too much load.

## Condition based exercise

dependent on the injury, surgery, stage of recovery and cardio-respiratory capacity.

## Structural based exercises

depending on the structure that needs loading, unloading or intervention—joint, tendon, muscle, or neural structures.

## Patho-physiological based exercises

based on assessment of recovery time frames, healing and capacity to take load.

## Clinically informed exercises

based on a blend up-to-date research, clinical experience and taking a person centred approach.

## Neurologically informed exercises

based on diagnosis and assessment of neurological deficits.

## Sport specific

targeted exercise programs designed for the athlete and specific requirements for their sport.

SPEX Physiotherapists have advanced knowledge of anatomy, biomechanics and pathophysiology that enables them to implement effective, results-oriented rehabilitation and exercise programs.

## It is about teamwork

- Regardless of workplace setting (eg. team or private practice) SPEX physiotherapists communicate with Exercise scientists/physiologists and consult as part of a multidisciplinary team with Sports Physicians, Dietitians and other medical practitioners.
- They have the skills to recognise serious pathology and deterioration in a patient and report options and pathways back to the patient's medical and coaching team.
- They have the capacity to make informed decisions in the acute setting and the appropriate referral pathways to take.
- They are experts in sport specific biomechanics and have sound knowledge on specific equipment requirements. This enables them to work closely with the coaching and training staff and create sports and individual specific rehabilitation programs.

## Spotlight on patella tendinopathy

Patellar tendinopathy is a condition that causes pain in the tendon below the kneecap. The pain often affects athletes in sports that involve a lot of jumping, like basketball, AFL or netball and affects both recreational and elite athletes. This often results in reduced performance, missed training, and games. Nearly half of those affected will have recurring symptoms, and over half quit sports because of ongoing pain<sup>12</sup>. A comprehensive rehabilitation program is essential to effectively treat the injury, contributing factors and prevent recurrence. SPEX physiotherapists use the most up-to-date research to assess and treat risk factors, provide education regarding the pathology and load management, tailor treatments and exercise prescription to optimise outcomes and reduce the risk of recurrence.

Key strategies and exercises (more than just isometrics!):

- Assessment and treatment of risk factors, deficits in the kinetic chain and biomechanical issues
- Identification of loading errors and education regarding optimal loading
- A structured rehabilitation program including isometrics, progressive resistance training, plyometrics and cardiovascular exercise
- A structured loading program and sport specific skills and exercises.



### References:

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4. Ardern CL et al (2018)
5. Bunzli S et al (2015)
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