Plyometrics

What is Plyometrics?

Throughout injury rehabilitation physiotherapists strive to use effective strength and conditioning programs to optimise an athlete's function before they return to sport. Plyometrics is an integral part of a rehabilitation program and is used as the link between pure strength and sport specific speed. Plyometrics involves practicing functional movement patterns with a rapid deceleration and acceleration to improve 'explosive strength'.
It is based on the stretch-shortening cycle, which involves the stretching then immediate shortening of the muscle-tendon unit, allowing muscle fibres to generate more tension.

Benefits

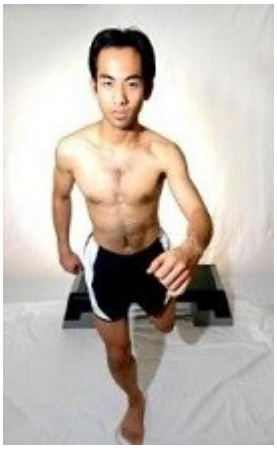
This response to the stretch-shortening cycle creates several benefits to the athlete:

- Enhances the ability of the muscle to powerfully contract in a short amount of time. In other words, increase the rate of force development (RFD).
- Increased running speed and jumping ability in both adults and adolescents
- Improved position sense and postural control
- Improved energy storage capability in elastic tissues
- Programs that include plyometric exercise help reduce the risk of injury by up to 55% by improving force reduction through joints and preparing the body for sport-specific skills

E: admin@ibphysio.com.au | T: 02 9976 3540 | F: 02 9976 3290 | Suite 14, Level 2, 22 Darley Road, Manly, NSW 2095 Australia

When, how often and how long?

This is important as starting plyometric exercise too early in rehab or too many intensive sessions per week may delay recovery. The person should have adequate strength, control and endurance before starting the program, and two sessions per week is sufficient to help improve performance and power. Adequate recovery time has been recommended at around 48-72 hours between sessions. Repetitions should be slowly progressed from low volume (around 50) to high volume (120-200).

- 
- 

In a nutshell

Plyometrics is a critical part of many rehabilitation

E: admin@ibphysio.com.au | T: 02 9976 3540 | F: 02 9976 3290 | Suite 14, Level 2, 22 Darley Road, Manly, NSW 2095 Australia

programs, but it should be developed with the person's chosen sport in mind. In sports with explosive running, cutting and jumping demands, plyometric exercises should involve linear, multidirectional, double leg and single leg variations to bridge the gap between classical training and sport-specific activities.

If you have any questions about whether plyometric exercises would be suitable in your training program, please contact the physios at In Balance Physio & Pilates.

Article by Kieran Watson

E: admin@ibphysio.com.au | T: 02 9976 3540 | F: 02 9976 3290 | Suite 14, Level 2, 22 Darley Road, Manly, NSW 2095 Australia