

Dr MEL CUSI

MBBS, Cert Sp Med(RACGP), FACSP, FFSEM(UK)

Sports Physician

Conjoint Lecturer, University NSW

Sports and Exercise Medicine

ORTHOSPORTS

Core stability: what is it all about?

What is the 'core'?

Essentially the "core" is the mid-section of the body

What is core stability?

Core stability has to do with the ability to control the position and movement of the central region of the body.

A great deal of attention has recently focused on the concept of 'core stability' or trunk stabilisation.

This concept is embodied in many stretching and strengthening regimes such as yoga, Pilates, Feldenkrais and the Alexander Technique.

Core stability is the ability of the lumbopelvic hip complex to prevent buckling and to return to equilibrium after it has been disturbed. In mechanical terms this concept proposes that you need to have a strong or stable base from which any lever system i.e. your limbs can operate.

How does it help me?

The functional result of good core stability is that normal everyday activities (sit, stand, reach, push a trolley or carry shopping bags) can be done with greater safety.

When athletes carry out a sporting movement or technique, they are able to maintain the correct posture and alignment, particularly in the lumbar spine and pelvic area and improve their technique.

In sports such as diving, or gymnastics which are dependent to an extent on aesthetics, an athlete would look more controlled. In a running event, enhanced core stability would mean that an athlete would be able to apply force more efficiently.

Current evidence suggests that decreased core stability may predispose to injury and that appropriate training may reduce injury.

Core training is now accepted as a way to reduce injury and enhance performance.

How can I improve my core stability?

For most tasks rather low levels of activation are necessary for long periods of time. This suggests that **endurance** and not necessarily **strength** is most important for the muscles that are involved in stabilising the spine.

Core stability is sometimes incorrectly taught as gross abdominal bracing rather than finer abdominal control during movement; some strength is required, but it involves more than that: you need to have good body awareness and 'balance'.

What exercises can I do?

There are many exercises you can do to train your core stability, but it is more important to adhere to the following principles:

- a) A good technique is necessary to ensure you use the "right" muscles. Inappropriate technique can lead to injury in the long run. You need to train the brain as well as the muscles involved.
- b) Do not progress to the next level up until you have achieved control and endurance at the lower level.

A set of exercises is available in the **Core stability exercises** section.