

Lordosis.

What is a Lordosis?

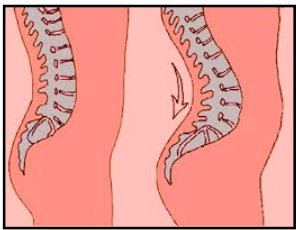


Figure 1: Lordosis.

The spine needs a natural curve to function correctly. This is due to the shape of the individual bones that make up the spine (vertebrae). Everyone has a lordosis in his or her lower spine (See Figure 1).

If the curve in the spine becomes too great, stress is placed on other parts of the spine causing pain. 'Hyperlordosis' is an exaggerated lumbar curve in the spine, in which the lower back curves inwards more than it would naturally do.

What is the cause of a painful Lordosis?

An increase in training or a 'natural growth spurt', in which the lower back is placed under an increased amount of stress, can result in a painful lordosis. Poor posture can also be a cause.

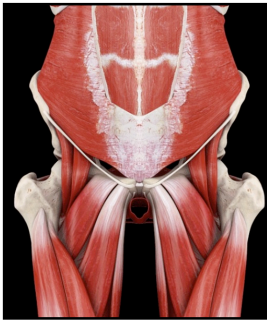


Figure 2: Hip Flexor Muscles.

A player may be born with an abnormal spine position or posture, or in some players, poor posture may develop over time. They may notice some muscles around the hip and spine become tight, while others become weak and stretched, causing a muscle imbalance. This is common in football players. The muscles that are often tight are the trunk extensors (erector spinae and quadratus lumborum muscles) and the hip flexors (iliopsoas muscle) (See Figure 2).

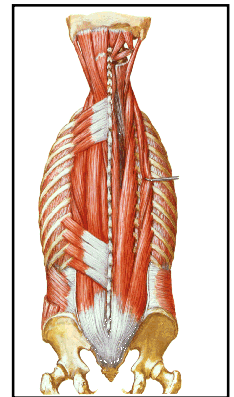


Figure 2: Erector Spinae & Quadratus Lumborum Muscles.

The muscles that become weak and stretched are usually the abdominal muscles (rectus abdominus, internal oblique and external oblique) and the hip extensors (hamstring and gluteus muscles) (See Figure 3).

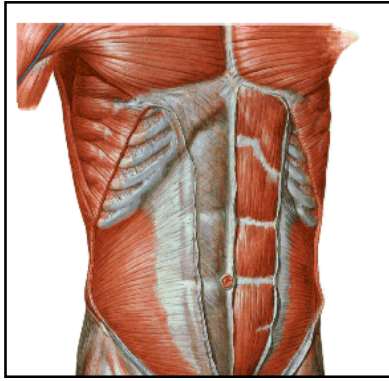


Figure 3: Abdominal Muscles.



Figure 3: Hamstring Muscles.

What are the signs and symptoms?

A player will notice tenderness and pain in the lower back and sometimes in the front of the hips and stomach muscles. There is usually no specific incident to cause a painful lordosis – the pain gradually occurs over time.

The player will notice that their posture is different from other players or has changed with a lot of training or playing. Figure 4 indicates the poor postures that can occur and influence a player's lordosis.



Figure 4: Poor Posture.

What can the player do?

The player should initially rest from training and playing until there is no pain. If the symptoms of pain in the lower back persist, then the player should see a sports injury professional. A sports injury professional (sports doctor or physiotherapist) can advise on the correct diagnosis and the correct rehabilitation.

What can a sports injury professional do?

Usually the cause of a painful lordosis ('hyperlordosis') is a muscle imbalance. A sports doctor or physiotherapist will examine the player and assess whether there are any tight/short muscles or any long and weak muscles. A rehabilitation programme will be designed, involving strengthening and stretching exercises, aimed at correcting any muscle imbalances (See Figure 5).



Figure 5: Rehabilitation Exercises.

A sports doctor may prescribe anti-inflammatory medications if the pain is severe or persists for long periods. An x-ray may be necessary if the player's pain persists to rule out any underlying causes for the pain associated with the player's lordosis. The rehabilitation programme will be designed to avoid re-injury and prevent a 'hyperlordosis' from occurring again. Most importantly, a sports injury professional will advise the player on when they should return to training and playing football.