

Dear Patient

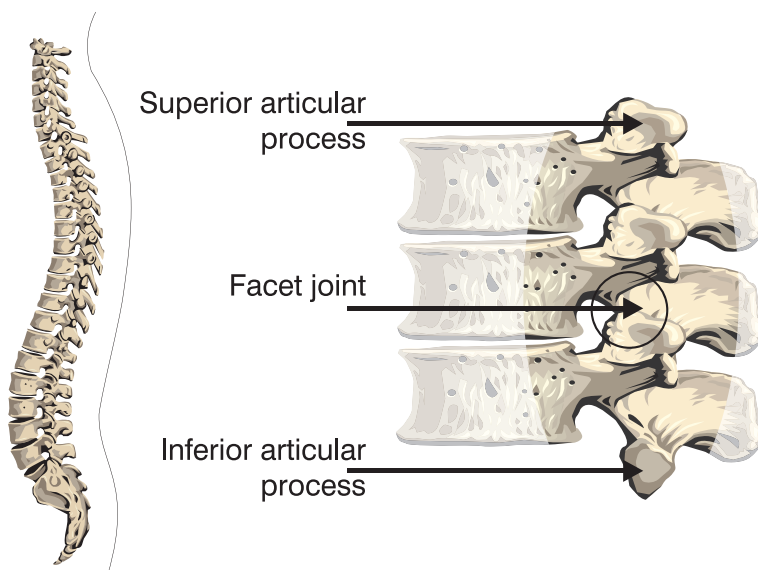
# Low Back Pain

## Facet Joints

Low Back Pain affects nearly two thirds of the population at some stage in their lives. There are many causes of back pain including disc problems, muscle strains, poor posture, arthritis, stress fractures and nerve irritation (e.g sciatica). But perhaps the most common cause of low back pain is damage involving a facet joint and its associated ligaments and joint capsule.

### WHAT IS A FACET JOINT ?

The spine is made up of 24 vertebrae and the sacrum and coccyx. Between each vertebra is a fibrous disc that acts as a shock absorber. At the back of the spine, each vertebra connects to the one below via bony projections forming facet joints. These joints dictate and guide movements at different parts of the spine. In the lumbar (lower) spine, the facet joints primarily allow bending forwards, backwards and sideways. They allow only limited twisting and most movement involving trunk rotation occurs above the waistline. Each facet joint is supported by ligaments and muscles and is surrounded by a joint capsule. When we bend backwards or sideways the facet joints close down and are compressed. Forward bending opens up the joints and puts the ligaments on stretch.



Above: Side view of spine highlighting the joints between each vertebrae known as facet joints.

### HOW ARE FACET JOINTS INJURED ?

#### ▪ SUDDEN INJURY

The facet joints may be damaged by a sudden twisting or bending movement, commonly seen when lifting something heavy, playing sport or getting in or out of the car. The facet joint becomes damaged when a force, prolonged or sudden is applied to the joint, pushing the joint beyond its normal range of movement. Damage includes overstretching and tearing of the ligaments, muscles and facet joint capsule. Bleeding into the surrounding tissues, causing pain and inflammation may result. There may also be associated muscle spasm and stiffness.

#### ▪ POOR POSTURE

Ligaments may be overstretched and joints put under constant strain if poor postures are maintained for a sustained length of time. Muscles fatigue easily and do not always provide adequate support or protection of the joints under extreme or prolonged stress.

#### ▪ DEGENERATION

Arthritic changes, commonly associated with increasing age, may cause the breakdown of cartilage and bone within facet joints. Inflammation results in pain as the body tries unsuccessfully to repair damaged structures. Whilst healing is not possible in the case of joint degeneration, treatment of the resulting inflammatory condition may bring some relief.

## SYMPTOMS AND SIGNS OF FACET JOINT INJURY

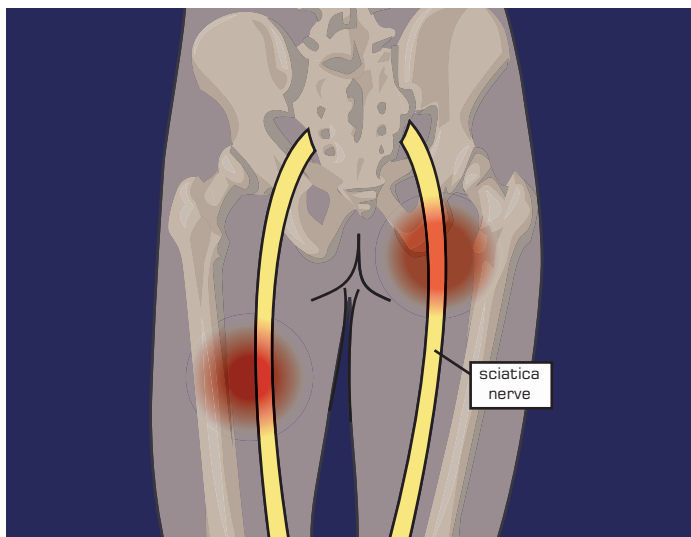
- Pain is usually on one but may be on both sides of the lower back.
- There is often a constant ache although sharp, stabbing pains are often evoked with movements and particularly twisting and bending backwards or sideways.
- Pain may be felt in the buttocks or legs on one side but is usually localised to the area of the injury.
- Low back stiffness particularly in the morning.
- Sharp pain when rising from sitting to standing or getting in and out of the car.

## TREATMENT

Initial treatment of an acutely damaged joint is aimed at reducing pain and inflammation through the use of anti-inflammatory drugs as prescribed by your doctor, ice or heat, electrotherapy such as ultrasound or interferential, gentle movement, and rest from aggravating activities. Further treatment to restore normal movement and reduce pain may include mobilisation and manipulation, traction, massage and heat. Advice on posture, lifting techniques and individualised exercise programs to improve the strength of muscles that support the spine are also useful. Arthritic conditions resulting in joint degeneration are irreversible and treatment aims at minimising pain and maintaining function. Hydrotherapy is often an effective form of intervention.

## HOW WELL DO THE JOINTS RECOVER ?

Unless the damage is severe, facet joints respond quickly to treatment (1-2 weeks) and usually recover quite well. When the injury is caused by multiple factors such as long standing poor posture, overuse, wear and tear and discal degeneration, recovery may be slower and incomplete. Your physiotherapist will advise you on the types of therapeutic exercise of most benefit to your condition.



*Above: Pain may be felt in the buttocks or legs on one side as well as in the back over the damaged facet joint*



*Facet joints are often damaged when lifting awkwardly.*



*Above: Mobilisation of a damaged facet joint by your Physiotherapist may help to relieve the symptoms.*



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