

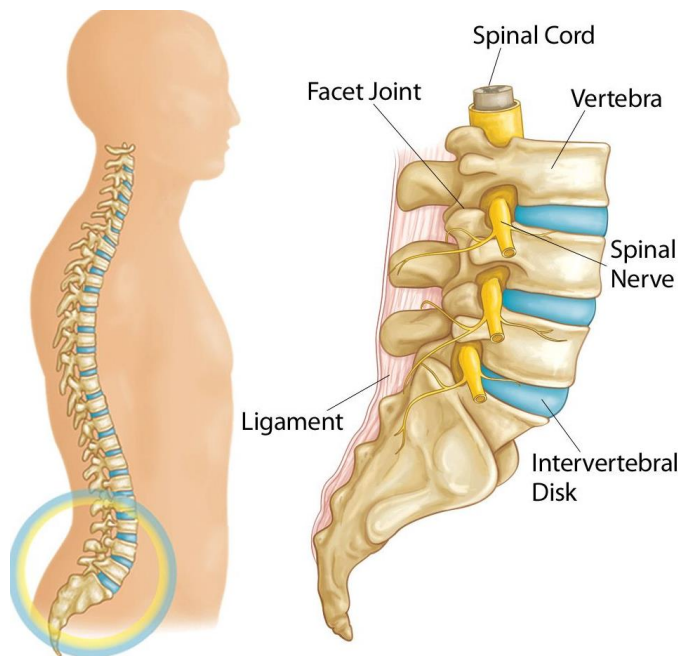
**The Three D's of Spinal Pain: Degenerative Disc Disease**

Low back pain and neck pain are some of the most common reasons why people seek help from a physiotherapist. Despite their commonality, they can be quite tricky to treat. I find when people come to the clinic with pain in these two areas, their x-ray report often reveals they have something called Degenerative Disc Disease (also known as DDD). Although it sounds scary, it is a very common finding and almost an inevitable part of aging. So what exactly is DDD, and what can be done about it?



**The Spine**

Before we get into what DDD is, it's important to understand what the spine is and how it functions. The spine is basically several bones (vertebrae) stacked on top of each other with a disc (intervertebral disc) between each bone. These discs are softer than bone and allow the spine to bend and twist fluidly without pain. The spinal cord also goes through each vertebra and gives off branches of nerves allowing signals to travel between the extremities, brain and

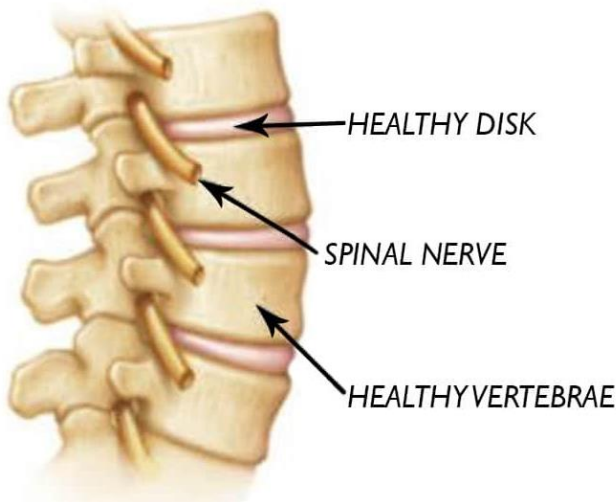


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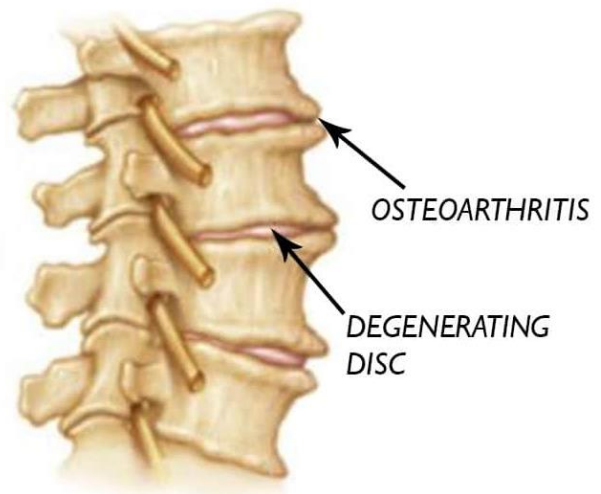
**What is DDD?**

DDD is basically a condition affecting the intervertebral disc between the vertebrae. It can occur at the level of the neck, mid back, and low back, and can involve just one disc or several discs. The intervertebral discs become less soft and malleable. They lose fluid and start to act more like bone, which reduces the spine's ability to move. The vertebrae are more likely to come in contact with each other, causing inflammation and pain.

**HEALTHY SPINE**



**DEGENERATING SPINE**



**Who can get DDD?**

Short answer: everyone! Everyone will eventually develop DDD in their lifetime. And it can affect people of any age. I have seen 20 year-old patients come to the clinic complaining of low back pain who have been told they have DDD. I have also had 80 year-old patients with the same diagnosis. It is important for us to understand and treat it since it is such a common diagnosis.

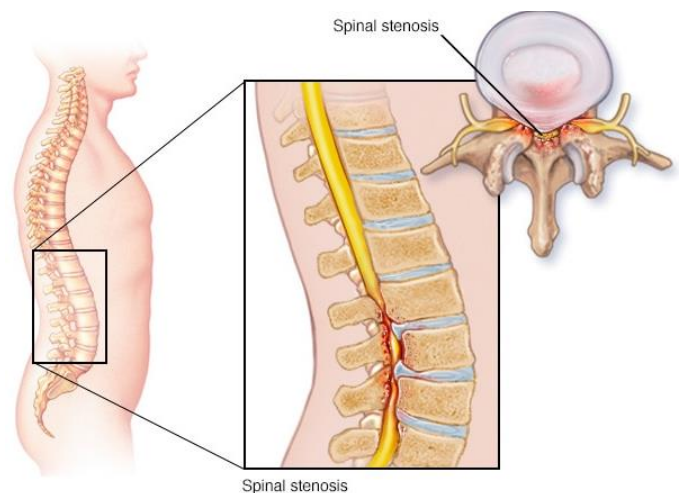


### **Why is DDD Important?**

Understanding DDD is important because it can lead to a number of spinal conditions. DDD is often seen as the precursor for other spinal conditions, including:

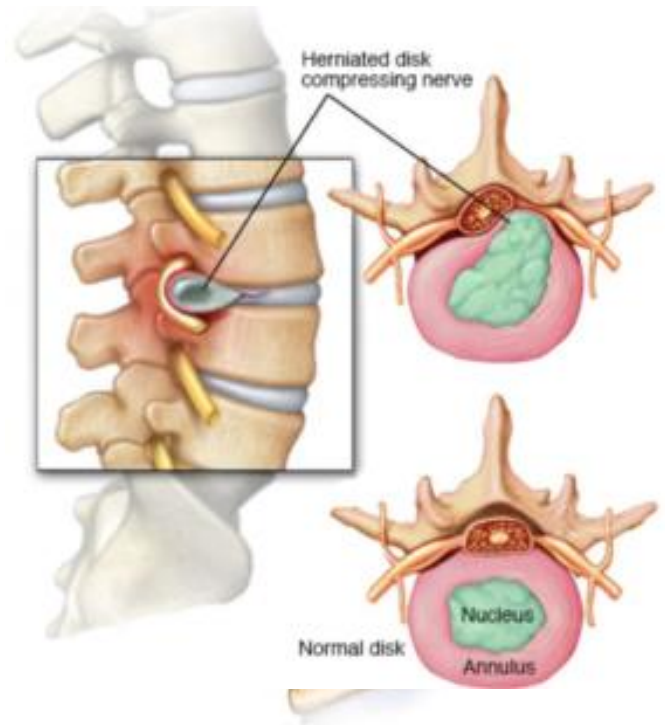
#### 1) **Spinal stenosis**

This is when the canals that allow for the spinal cord and nerves to pass freely become smaller and put pressure on the nerves. This can lead to numbness and weakness in the arms or legs, depending on the location of pinching.



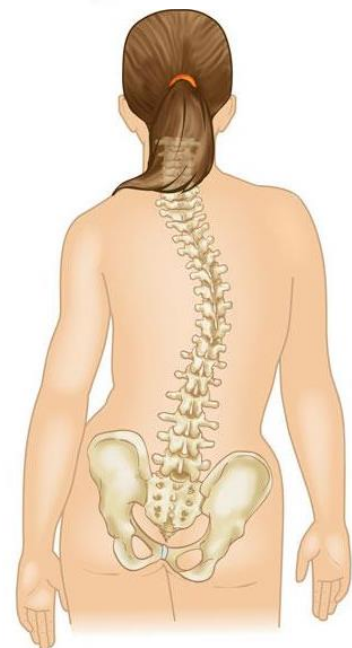
2) Spondylolisthesis

This is when one vertebra slips forward in relation to the vertebra below it. This can also impact the nerves in the area, leading to the numbness and weakness mentioned above.



3) Scoliosis

Scoliosis is when the natural curvature of the spine is altered. The spine starts to curve to the side, which alters the pressure put on various joints and muscles.



4) Disc herniation

When the intervertebral disc starts to become damaged, the inner portion (nucleus) is pushed out of the outer portion (annulus). This can put pressure on nerves, and also causes numbness and pain into the extremities.

### **What Triggers Pain Related to DDD**

Since DDD can lead to a wide variety of other issues, the triggers for pain can also vary. However, the biggest trigger is lack of movement. Because DDD causes a stiffening of the spine, sitting for hours on end or looking down on your tablet for a few hours can cause pain. This is because these positions promote more stiffening of the joints and muscles.



One way to avoid this issue is by adopting a good posture while sitting or standing (see my previous blog post!). Another way is to take movement breaks throughout your day. Taking a quick 5 minute walk will help muscles to loosen and lubricate your joints, reducing the tension and pain you may experience.

### **Exercises for DDD**

There are several exercises I give my patients who have DDD. I have listed some of the most common ones below. Keep in mind, these are general exercises that may not be the right fit for you. If you try them and find your pain is getting worse, stop!

#### 1) Single knee to chest stretch (for low back DDD)

Laying on your back, pull one knee up to your chest while your other leg remains relaxed. Make sure to hold the leg from behind the knee to avoid aggravating knee pain. You should feel a

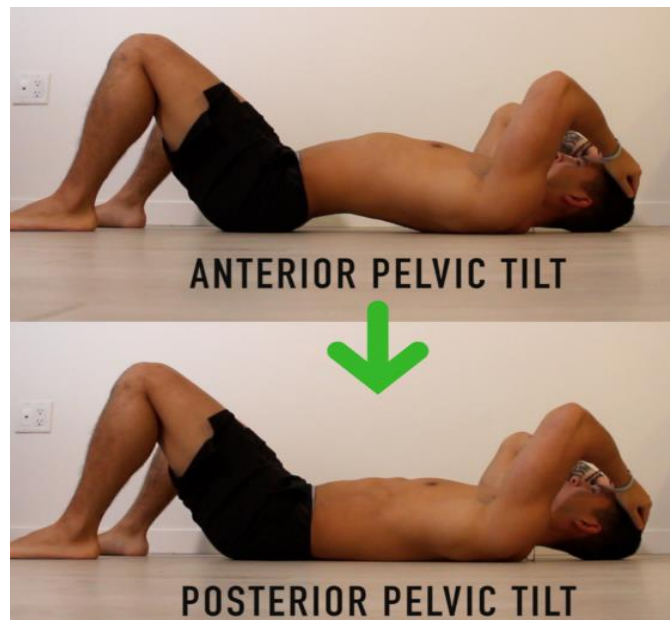
stretch in the low back, on the side of the leg you are pulling on. Hold for 15-20 seconds, and repeat 3-4 times on each side.



2) Pelvic tilts (for low back DDD)

Lay on your back with your knees bent and low back relaxed. Next, gently arch your low back, followed by flattening your low back against the floor. Do not push into these positions if they cause pain.

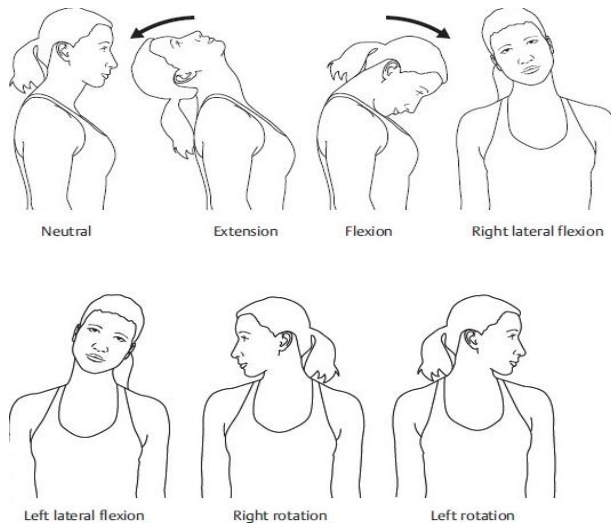
Complete each position 10 times.



3) Upper fibre trapezius stretch (for neck DDD)

In a seated position, bend your head over to one side, imagining trying to touch your ear to your shoulder. Use your hand to gently pull the top of your head towards your shoulder. You should

feel a stretch on the opposite side of the neck. Hold for 15-20 seconds, and repeat 3-4 times on each side.



#### 4) Cervical range of motion (for neck DDD)

In a seated position, gently bend your neck forward and back 10 times each. Then bend your neck side to side 10 times each, imagining you are trying to touch your ear to your shoulder. Finally, rotate your neck side to side 10 times each, imagining looking over your shoulder. Do not go deep into any position, and limit the mobility within a pain-free range.

#### **What Next?!**

If you think you have DDD, or you've been diagnosed by your doctor, the next best step is to come to physiotherapy! Together we will work on your strength and mobility, reduce your pain, and help prevent further injury. Email us a [informphysio12@gmail.com](mailto:informphysio12@gmail.com) for more information!