INTERVERTEBRAL DISC

The intervertebral disc serves primarily to allow movement between adjacent vertebral bodies, to absorb shock, and to transmit loads through the vertebral column.

The intervertebral disc is made up of two components: the <u>annulus fibrosus</u> and the <u>nucleus pulposus</u>. The annulus fibrosus is the outer portion of the disc. It is composed of layers of collagen and proteins, called lamellae.

HERNIATED DISK (video: click here)

A prolapsed (herniated) disc occurs when the $1 \frac{1}{\text{outer fibres of the intervertebral disc are injured}}$, and the soft material known as $2 \frac{1}{\text{the nucleus pulposus ruptures out of its enclosed space}}$.

The prolapsed disc or ruptured disc material can enter the spinal canal, <u>squashing the spinal</u> <u>cord</u>, and the spinal nerves.

Herniated discs rarely occur in children, and are most common in <u>young</u> and <u>middle-aged</u> <u>adults</u>. A herniation may develop <u>suddenly</u>, or <u>gradually</u> over weeks or months.

SCIATIC NERVE

The sciatic nerve is the <u>largest nerve</u> in the human body and is formed by the union of 5 nerve roots from the lower spine. It passes deep in the buttock and down the back of the thigh all the way to the heel and sole of the foot. The sciatic nerve serves a vital role in connecting the spinal cord with the skin and muscles of the thigh, leg, and foot.

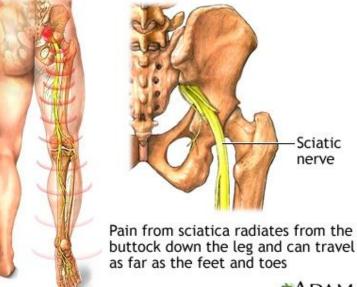
At the apex of the popliteal fossa, the sciatic nerve terminates by dividing into two terminal branches:

- The tibial nerve.
- The common fibular (peroneal) nerve.

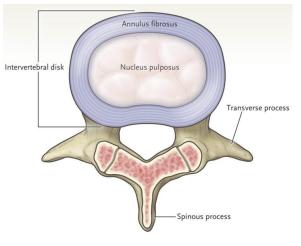
SCIATICA (video: click here)

Sciatica refers to <u>pain</u> that radiates along the path of the sciatic nerve, which branches from your lower back through your hips and buttocks and down each leg. Typically, sciatica affects only <u>one side of your body</u>.

Sciatica most commonly occurs when a $\frac{1}{\text{herniated disk}}$, $\frac{2}{\text{bone spur on the spine}}$ or $\frac{3}{\text{narrowing}}$ of the spine (spinal stenosis) compresses part of the nerve. This causes $\frac{1}{\text{inflammation}}$, $\frac{2}{\text{pain}}$ and often some $\frac{3}{\text{numbness}}$ in the affected leg.



*ADA.M.



Although the pain associated with sciatica can be severe, most cases resolve with non-operative treatments in a few weeks. People who have severe sciatica that is associated with significant leg weakness or bowel or bladder changes might be candidates for surgery.

TIBIAL NERVE

Tibial nerve is the larger terminal branch of the sciatic nerve. Damage to the tibial nerve is rare, and is often a result of direct trauma, entrapment through narrow space or compression for long period of time.

COMMON PERONEAL NERVE

Common peroneal nerve is a major nerve that innervates the lower extremity. There are numerous traumatic and non-traumatic causes of peroneal nerve injuries, including knee dislocation, direct impact or fracture of the proximal fibula, compression by use of a tight plaster cast.

