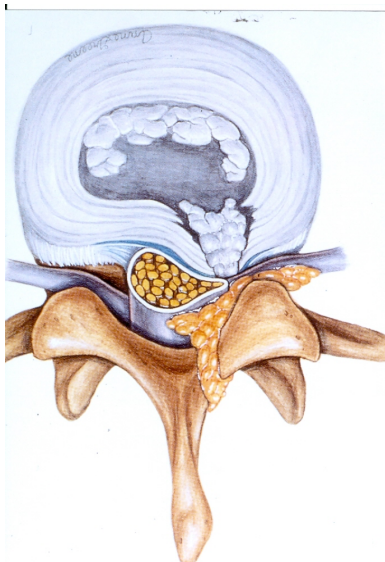


Herniated disc (disc hernia)

The intervertebral disc or discus serves as a shock absorber between the vertebral bodies. The disc consists of a tight ring of connective tissue (annulus) and a gelatinous core, the nucleus, which shifts depending on the load acting on it. Particularly in the lumbar spine, the discus is subjected to great stresses, and cracks usually form in the outer ring, the annulus, as early as 30 years of age.

When the central nucleus material emerges along a crack in the annulus, this is referred to as a herniated disc or disc herniation (Fig. 1).



Herniated discs occur mostly in the lumbar spine and much less in the cervical spine. Very rarely they occur in the thoracic spine. This disc herniation can cause low back pain in the early stages. However, as soon as the herniated disc or the escaping core material (nucleus) presses on a nerve (nerve compression), there is also radiating pain (band-like) in one of the extremities. Disc herniations of the cervical spine cause pain in the arm, and disc herniations of the lumbar spine cause pain in the leg. The distribution pattern of the pain in the arm or leg gives an indication of the level of the intervertebral disc affected.

Figure 1

In addition to pain, tingling (paresthesia) and sensory disturbances (disturbed surface sensitivity) often occur in the affected region of the nerve under pressure. Finally, motor failure of the nerve may occur, i.e. muscle strength is no longer under control at the affected extremity. You can test this yourself by trying to walk on your heels and tiptoes.

Therapy depends on the extent of symptoms such as pain and paralysis. Sensory disturbances and tingling do not rank first among the leading symptoms with regard to the diagnosis and therapy to be adopted. In the case of significant leg or arm pain and/or paralysis symptoms with loss of motor.

In any case, a magnetic resonance imaging (MRI) or at least a computer tomography (CT) is urgently indicated. Figure 2 shows a lumbar MRI from the side with a large herniated disc.

Emergency surgery should only be performed in cases of pain that cannot be controlled with medication or in cases of functional paralysis, such as inability to lift the foot or hand. Otherwise, the rule is to try a drug therapy with additional physiotherapy for at least 6 weeks or possibly a two-week inpatient therapy.



Figure 2