Cervical Intervertebral disc disease (IVDD)

What is Cervical Disc Disease?

A more common term for cervical disc disease is a ‘slipped disc’ in the neck. The discs are the structures between the bones of the spine (vertebrae) that act as shock absorbers.

As in people, discs in dogs degenerate as they get older. This process results in the discs becoming dehydrated and losing their cushioning effect. They may then ‘slip’ in one of two ways. Firstly, the material in the centre of the disc can come out of the fibrous ring and injure the spinal cord (this is called a disc extrusion). Secondly, the fibrous ring may thicken and compress the spinal cord (this is called a disc protrusion). Either type of ‘slipped disc’ may cause back pain and spinal cord injury.

What are the Signs of a Cervical Slipped Disc?

Signs of cervical disc disease are due to either:

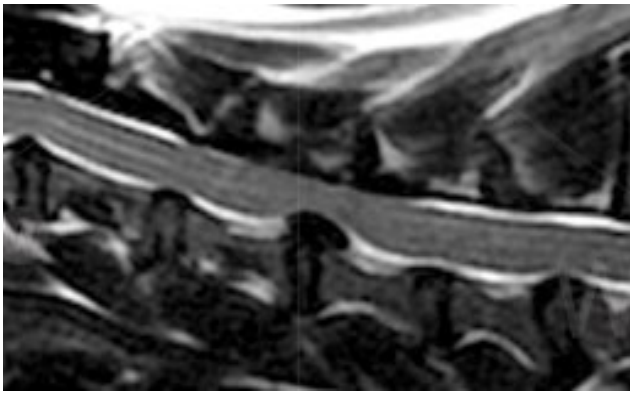
- Neck pain: Signs of neck pain may be obvious e.g. yelping and crying or rigidity of the neck. More subtle signs include reluctance to jump or climb and low head carriage. Difficulty lowering the head to eat from the floor may also be evident.
- Nerve injury: Signs of nerve injury are uncommon with cervical disc disease. Occasionally discs that ‘slip’ in the neck can sufficiently compress the spinal cord to cause weakness or lack of co-ordination of all four limbs.

How is Cervical Disc Disease Diagnosed?

A neurological examination is necessary to detect evidence of spinal cord injury and neck pain. Following the examination investigations are necessary to confirm a ‘slipped disc’ and exclude these other possible conditions.

X-rays of the neck may reveal evidence of cervical disc disease, such as a narrowed disc space or a calcified disc. However, more advanced investigations are necessary to see which disc has actually slipped and to assess the severity of any spinal cord compression. These advanced imaging techniques, include the use of radiography or CT after injecting a dye (contrast agent) around the spinal cord (myelography or CT-myelography respectively) or an MRI scan.

MRI is less invasive than myelography with less risk of side-effects, for most patients MRI provides the best option for investigation. Both MRI and myelography require the dog to have a general anaesthetic. Occasionally it is necessary to collect some fluid (cerebrospinal fluid – CSF) from the spine and send it to a laboratory for analysis. This test assists in the diagnosis of inflammatory conditions that affect the spine.



How can Cervical Disc Disease be Treated?

The two main methods of managing cervical disc disease are:

Conservative treatment: In dogs with cervical disc disease that are undergoing conservative treatment their exercise must be restricted. Short walks on a harness for toileting purposes may be necessary, with strict confinement at other times. The hope is that the 'slipped disc' will heal, any neck pain subside and the spinal cord recover from any injury. Painkillers may be necessary and possibly other drugs such as muscle relaxants.

Surgery: Surgery aims to remove any disc material that is compressing the spinal cord and to prevent any more disc material 'slipping'. Decompressive surgery involves removing a section of bone from the bottom of the spine (ventral slot) to enable retrieval of disc material. Further 'slipping' is prevented by removing any remaining material in the centre of the disc (disc fenestration). Occasionally vertebral stabilisation (fusion) procedures are necessary, especially in large dogs.

What can I expect if my pet is treated for Cervical Disc Disease?

The outlook or prognosis with cervical disc disease is generally good. Conservative management can be successful in patients with neck pain who don't show signs of spinal cord injury, such as weakness and incoordination. Unfortunately, some dogs continue to deteriorate with this approach or recover only to have a recurrence weeks or months later.

The success rate with surgery is generally high provided that the spinal cord hasn't been compressed for a long time (chronic spinal cord injury). Chronic cord injuries can be treated successfully with surgery, but the outlook is less favourable than it is for short-term (acute) injuries. Unfortunately some injuries to the spinal cord are irreversible.

After surgery dogs will typically stay in the hospital for 1-5 days. All affected dogs should be fitted with a harness instead of a neck collar, and they should have their activity limited, at least early in the recovery period. Strict rest is required in the first 3-6 weeks following a disc protrusion or rupture, with or without surgery. We may advise postoperative physiotherapy and hydrotherapy which can hasten recovery in some cases.

Will the problem recur?

If the spinal surgery has been successful then it is unusual for there to be a problem with the same disc. However, there may be a problem with other remaining degenerate discs. If possible other "at risk" IVD are fenestrated at the original surgery to reduce the risk of recurrence.