Yukon Medical Association
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YUKON WORKERS' COMPENSATION HEALTH AND SAFETY BOARD

FACT SHEET

Displacement of Cervical Intervertebral Disc without Myelopathy

What Else is it Called?

- Cervical Disc Protrusion
- Cervical Disc Herniation
- Herniated Disc
- Disc Herniation
- Herniated Nucleus Pulposis
- Disc Rupture
- Disc Protrusion
- Disc Bulge

What is it?

This diagnosis describes a disc in the neck that is beyond its normal position and may be pressing against a nerve that supplies the upper extremities.

How Is It Diagnosed?

History:

- Pain in the shoulder, arm, forearm or hand. The pain may have begun soon after an injury to the neck.
- Coughing or sneezing may be reported to make the pain worse.

What to look for:

- Pain is aggravated by neck movement, particularly bending the head backward (hyperextension), and turning the head from side to side (rotation). (Spurling's test)
- Pain may also be increased by compression of the spine (downward pressure on the top of the head)(axial loading), and relieved by traction.
- These two maneuvers, applied manually during the physical exam, help to differentiate disc pain from other causes.
- Range-of-motion of the neck may be limited due to pain and muscle spasm.
- There may be tenderness to firm pressure over the affected vertebra.

Tests:

- Plain x-rays to rule out other causes of pain, such as tumor, infection or fracture.
- The x-ray will usually show degenerative changes. Ageing changes can also be seen in asymptomatic individuals. In order to be considered significant, the x-ray findings must correlate closely with the symptoms and physical exam.
- If mechanical instability is suspected as a cause of recurrent pain, it can be documented by x-ray taken with the neck in flexion (forward bending) and hyperextension.
- CT scan or MRI may be necessary to confirm the clinical diagnosis.

What is the Expected Return to Work Time?

Medical treatment. Duration depends on severity of symptoms. Persisting radicular pain from a cervical disc herniation, even without myelopathy, may not be compatible with heavy work. **Job Classification RTW Min - Max** Sedentary Work……0 days – 21 days (Calendar Days) Light Work……0 days – 28 days Medium Work……0 days - 42 days Heavy Work……0 days - 84 days Very Heavy Work……..0 days – 84 days	**Discectomy.** Discectomy is usually not compatible with heavy and very heavy work. **Job Classification RTW Min - Max** Sedentary Work……14 days – 56 days (Calendar Days) Light Work……21 days – 56 days Medium Work……42 days - 84 days Heavy Work……Indefinite - Indefinite Very Heavy Work…….. Indefinite - Indefinite	**Fusion.** Disability may be permanent. **Job Classification RTW Min - Max** Sedentary Work……42 days – 84 days (Calendar Days) Light Work……56 days – 84 days Medium Work……70 days - 112 days Heavy Work……84 days - Indefinite Very Heavy Work…….. 84 days - Indefinite

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- Electromyography (EMG) may be useful in distinguishing nerve root compression from a peripheral nerve problem such as carpal tunnel syndrome or ulnar nerve entrapment. However, a normal EMG does not rule out nerve root compression. As in the lumbar spine, asymptomatic herniations are frequently seen in normal volunteers. So, to be significant, disc herniations on imaging studies must correlate exactly with the nerve root deficit of symptoms on physical exam.

How is it Treated?

- Conservative treatment should always be tried first, except in cases of severe or progressive neurological compression.
- Most cervical disc herniations (an estimated 80 to 90% improve without surgery.
- Surgery has a high failure rate if individuals are not carefully selected.
- In the acute phase of a disc herniation, rest and immobilization may be recommended. If the individual is up and about, a cervical collar may be worn to provide support and limit neck motion.
- Traction may be applied intermittently. (The individual may be taught to use intermittent traction at home).
- For relief of pain and inflammation, nonsteroidal anti-inflammatory drugs (NSAID) or steroids may be given; if pain is severe, a mild narcotic may be added. If anxiety and tension are prominent, sedatives may be helpful. Muscle relaxants are frequently prescribed, however their effectiveness probably is due to their sedative action.
- Ice, heat, massage, ultrasound therapy, acupuncture and intermittent cervical traction may help relieve pain.
- Spinal manipulation should be avoided.
- As symptoms subside, activity is gradually increased, including physical therapy and/or a home exercise program to strengthen and mobilize the neck and shoulder.
- Relaxation training and biofeedback techniques may be helpful.
- Good posture and frequent changes in position help prevent fatigue.
- Prevention and maintenance measures (exercise, stress management, proper body mechanics, etc.) should be continued indefinitely.
- If there is no improvement during the first two weeks, or if pain is still disabling after a maximum of six weeks, further evaluation is necessary.
- A thorough workup should be done to rule out other causes of neck/chest arm pain. In some cases, persistent pain may be due to arthritis of the facet joints.
- Recurrent pain may be due to mechanical instability; if this cannot be managed conservatively, it is an indication for surgery (discectomy and fusion)

A safe and timely return to work benefits the patient and his or her family by enhancing recovery and reducing disability." Canadian Medical Association

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- Individuals who have persistent neck pain as the predominant symptom usually do not benefit from surgery; these individuals may benefit from a pain clinic or rehabilitation program. Surgery may be considered if there is progressive or severe muscle weakness; severe arm pain with objective signs of nerve root compression, not improved by an adequate trial of conservative treatment or recurrent pain due to mechanical instability that cannot be managed conservatively (an indication for fusion).

What is the Predicted Outcome?

Most individuals recover in six months or less. Therapy and bedrest may help symptoms, but do not change outcome.

What are the Work Restrictions and Accommodations?

- Certain duties may be unsuitable for individuals with limited range-of-motion of the head and neck.

What are the Common Prescriptions?

- Anti-inflammatories
- Muscle Relaxants
- Analgesics (including mild opiods)
- Epidural Steroids
- Possible narcotics within first 1-2 weeks post surgery.

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