Common Spine Problems

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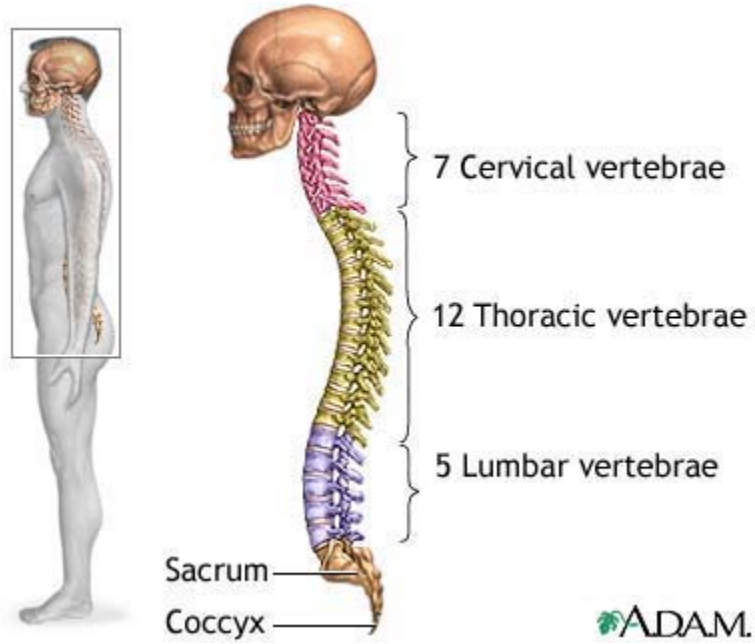

CERVICAL SPINE

General:

- consists of seven vertebrae
- exposed to repetitive bending and rotation

Common Ailments:

1. **Cervical strain** – involves an acute onset of neck pain due to specific stress or strain. Associated symptoms typically last less than 6 weeks allowing return to most normal activities.
2. **Cervical whiplash** – involves an acute onset of neck pain often associated with more moderate force. This may result in soft tissue injury about the structures of the neck that require greater than 6 to 8 weeks to resolve. Such an injury can sometimes require continued treatment over several months for improvement.
3. **Cervical disc herniation** – this condition involves an injury to the cervical spine that results in partial disruption of the disc structure that often results in a portion of the disc protruding outward and causing compression of local nerve structures. This, therefore, often causes associated radiating arm pain. This condition can often significantly improve and resolve in 6 to 8 weeks time. If symptoms are significant and/or persistent then medical evaluation is advised.
4. **Cervical stenosis** – this is a slowly progressive degenerative condition of the cervical spine and its joint structures. Such degenerative change can, over time, result in progressive narrowing of the canal region of the spine and exiting regions of individual nerve roots. This is termed stenosis. This can result in chronically worsening neck pain, arm pain, and deformity. Such alterations of the cervical spine often require very specific evaluation by a spine specialist/surgeon.

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THORACIC SPINE

General:

- consists of 12 vertebrae strengthened by the presence of the rib cage

Common Ailments:

1. **Thoracic strain** – involves an acute onset of thoracic region back pain due to specific stress or strain. Associated symptoms usually resolve in less than 6 weeks.
2. **Thoracic disc herniation/degenerative disease** – this condition is less common than seen in the cervical and lumbar spine. This may result in an episode of thoracic region with or without neurologic symptoms.

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LUMBAR SPINE

General:

- consists of 5 vertebrae exposed to repetitive bending, rotation, and torsion

1. **Lumbar sprain** – involves an acute onset of low back pain due to specific stress or strain. Associated symptoms typically last less than 6 weeks allowing return to most normal activities. Lumbosacral sprain involves the same type of injury, however, it involves specifically the lowest disc space, therefore termed the lumbosacral junction.
2. **Lumbar disc herniation** – this condition involves an injury to the lumbar spine that results in injury to the structure of the intervertebral disc. This then results in a portion of the disc protruding outward and causing compression of local nerve structures. This condition is often experienced as an episode of significant low back pain and subsequent onset of leg pain. This condition can often significantly improve in 6 to 8 weeks time and often resolves without operative treatment. However, if symptoms persist beyond this period of time, then medical evaluation is advised.
3. **Lumbar stenosis** – this is a slowly progressive degenerative disease of the lumbar spine and it's joint structures. Every intervertebral disc space is a complex joint. Such degenerative changes over time to these structures, can result in progressive narrowing around the contents of the spinal canal and individual nerve roots. This is termed stenosis. This condition can result in chronically worsening low back pain, leg pain, as well as leg symptoms of fatigue, cramping, and/or numbness with prolonged activities. This condition can also result in curvature of the spine and alignment abnormalities. If these types of symptoms are persistent then evaluation by a spine specialist/surgeon is often of benefit.
4. **Lumbar discogenic disease** – this abnormality of the lumbar spine is possibly one of the most common conditions to afflict the spine. This is essentially an abnormal acceleration of aging of an intervertebral disc space(s). This is often experienced as significant activity related to low back pain. These symptoms may often fluctuate, cause change in certain activity tolerance, but typically, are not debilitating. This condition has been found to be accelerated/worsened by cigarette smoking, obesity, hypertension, and certain repetitive forces to the lumbar spine. If this type of symptom persists or is debilitating, or is associated with other symptoms of illness – an evaluation by a spine surgeon/specialist should be carried out.

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COMMON TESTS/PROCEDURES:

X-ray – Plain X-rays are the mainstay of bone and joint imaging. Views for the spine would include AP and lateral. Flexion and extension may also be included.

MRI – Magnetic resonance imaging scans are good for the spine because soft tissue is seen in detail. MRI's which use contrast material distinguish between scarring and avascular tissue.

CT scan – Computed axial tomography scans are used to see bone, muscle and fat tissues. Visualization of the bone is usually excellent, soft tissue structure is less so. This may be used in conjunction with a myelogram is complicated degenerative spine disease.

Bonescan – Bone scans use radioisotopes injected into the blood. The scans are useful in identifying infections, fractures, inflammation, or tumors.

EMG – Electromyograms aid in the diagnosis of nerve injuries and diseases that affect the peripheral nervous system.

Bone Density – Dexa Scan measures the amount of calcium in certain bones and is used to estimate the risk of fracture, osteoporosis.

CT Discogram – A discogram confirms or denies that an abnormal disc is the source of pain. No pain medication may be taken for 6 hours before your exam time. This includes both prescribed and over the counter medications.

Myelogram – Myelograms are used to diagnose disorders of the spinal canal and spinal cord such as nerve compression causing pain and weakness. This test requires an introduction of radiopaque dye into the sac that surrounds the spinal cord and nerves.

COMMON TREATMENTS:

Physical therapy – (P.T.) may be recommended by the M.D. based on the patient's medical evaluation. The physician writes a prescription, which includes the diagnosis, modality (what type), duration and frequency of treatment. The therapist is an instructor – teaching patients exercises for strengthening, flexibility, and conditioning. Home exercises may be taught. A therapist may evaluate a patient's posture and recommend treatment to correct poor posture.

Medications –

NSAIDS (non-steroidal medicines) are a group of medications used to treat back pain. These medicines block inflammation, and decrease pain. To block inflammation, NASIDS **must** be taken on a regular basis, and in higher doses. These medicines may irritate the stomach. Patients must tell their physicians if they have a history of stomach ulcers, bleeding problems, an aspirin allergy, kidney or liver disease and what medications they take. These medicines should be taken with food.

Tylenol (acetaminophen) is not a NSAID. It can be used for management of pain. If a patient drinks 3 or more alcoholic beverages per day – it may increase their risk for liver damage.

Narcotic medications are generally used for **short-term management** of pain. Tolerance to the analgesic affect as well as dependence will occur.

Muscle relaxers are generally for short-term use.

Bracing – Bracing for the back or neck may be used. Typically, braces are for short-term use only.

Epidural Steroid Injection (ESI) – is a treatment mainly for acute or worsening leg pain. An anti-inflammatory medication is injected in the epidural space to decrease inflammation of the nerve root. This may provide permanent or temporary relief of pain.

Chiropractors – manipulate the spine through adjustments. This is temporary. There is no benefit for long term use.

Acupuncture – is a centuries old Chinese method of healing. It uses fine sterile disposable needles in specific parts of the body. This provides local pain relief only.

Other alternative treatments – such as magnets, bracelets, nutritional supplements have unproven benefits and safety.