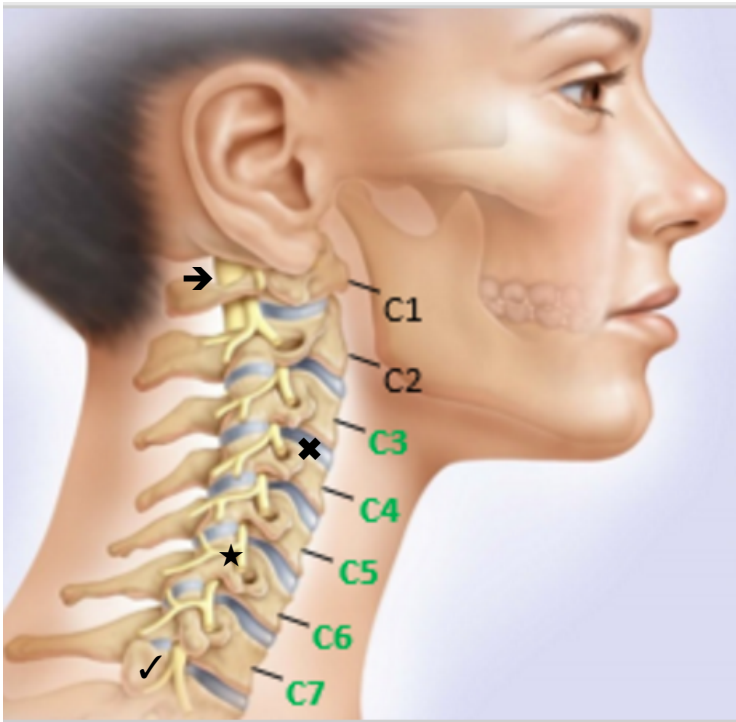


CHRONIC NECK PAIN

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NeuroRehab Coach

NECK ANATOMY



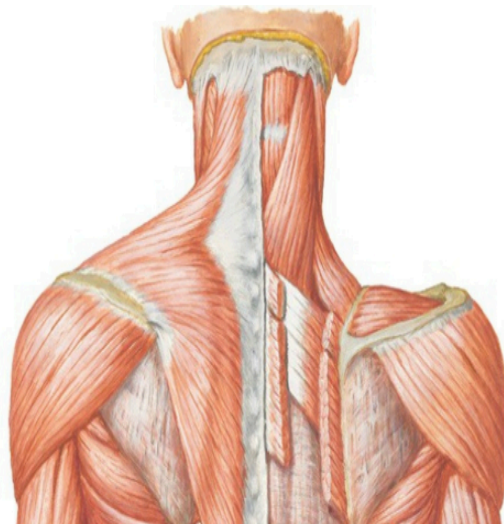
There are 7 bony structures in the neck called cervical vertebrae (C1-C7).

→ The **spinal cord** travels through a canal hallowed out in the bones.

★ **Nerves** exit from the spine through an opening on the side of the vertebrae and travel to muscles in the neck, chest & arms.

✘ **Discs** that separate the vertebrae align the spine, provide shock absorption and support the skull.

✓ **Facet joints** anchor the vertebrae & allow for full rotation of the neck.

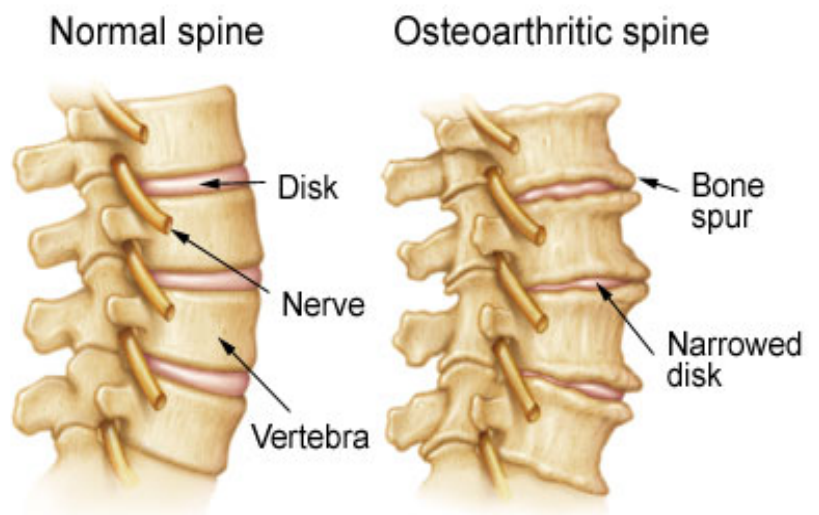


Muscles of the neck support the head and keep the head erect to maintain posture and allow for full range of motion.

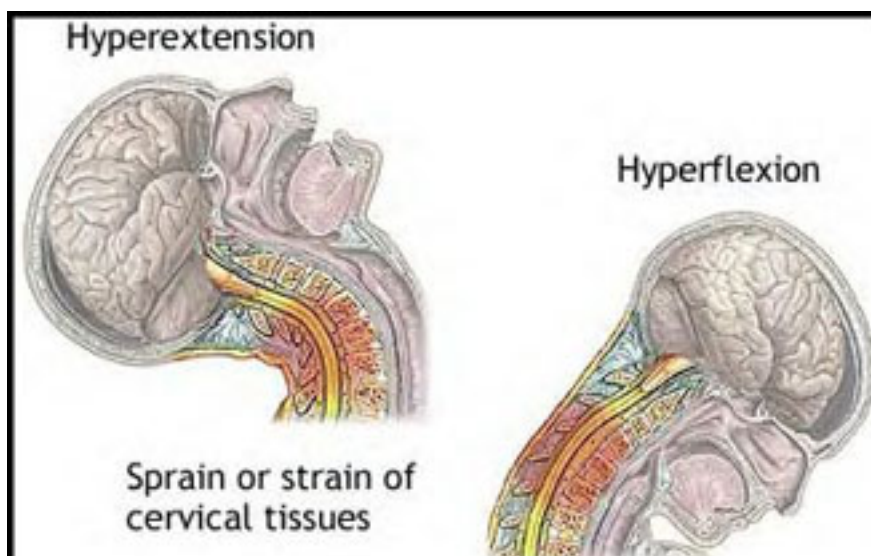
CAUSES OF NECK PAIN

- Age and Arthritis
- Injury
- Poor posture
- Disc degeneration
- Spinal Stenosis
- Muscle Strain
- Stress

AGING causes degenerative changes to the bones and discs of the spine called osteoarthritis or cervical spondylosis



Injury from whiplash can cause immediate pain from **muscle strain** that may become chronic if not treated.

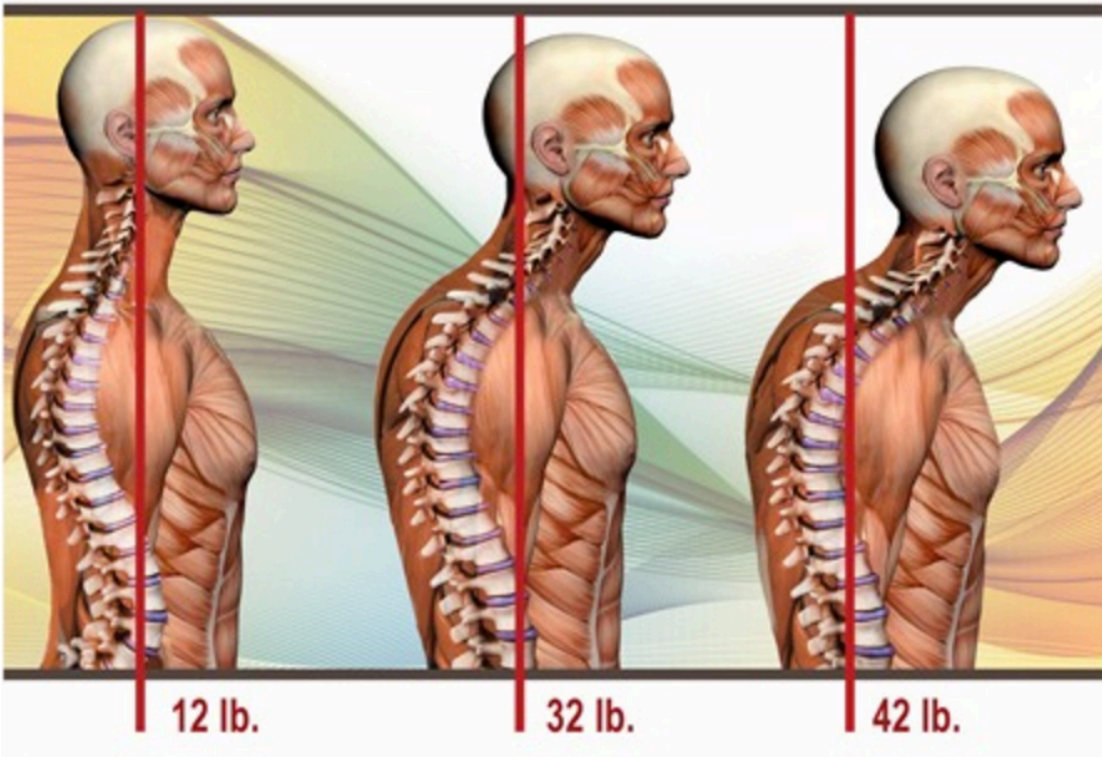


Poor posture increases stress on the neck from the weight of the head, **straining muscles**, causing pain, and over time degenerative disc disease from poor alignment. The weight of the head increases 10lbs for every inch of forward flexion.

Normal Posture

2 inches forward

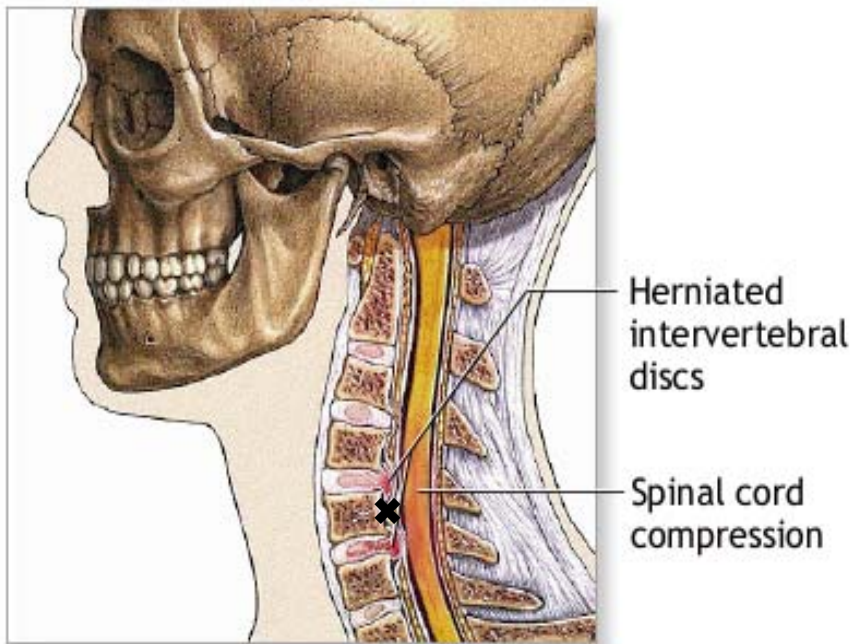
3 inches forward



Poor posture can occur daily with all activities.



Disc Degeneration and Herniation

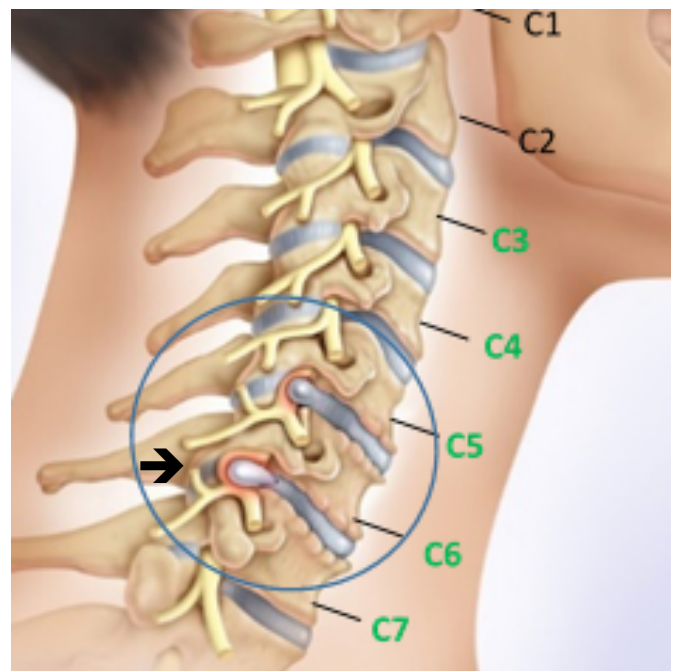


ADAM.

✘ When disc and bony material herniate into the spine there is narrowing and compression that can cause chronic neck pain, arm weakness, leg stiffness and walking instability.

Cervical Spinal Stenosis

➔ Herniated discs can put pressure on the **exiting nerves** to cause numbness, burning, pain, and muscle weakness.



Conditions Associated with Neck Pain

- Tension Headaches
- Temporal mandibular joint arthritis
- Shoulder pain
- Tingling and numbness in the arms
- Bruxisms (grinding teeth)
- Low back pain
- Emotional Stress

WHAT TO DO

- See your doctor to determine the cause of your pain
- Improve posture with all activities
- Physical therapy as directed by your physician
- Massage for relief
- Steroid injections as requested by your doctor
- Surgical evaluations if there is moderate structural damage



Use NeuroRehabCoach to continue your home maintenance and prevention program!