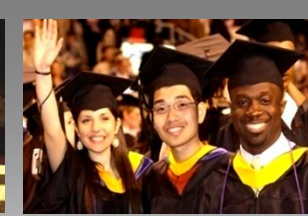
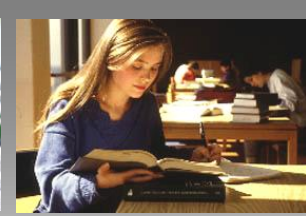




Identification of Painful Tissue Orthopaedic Examination DX 612

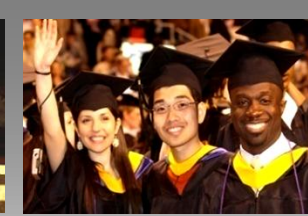
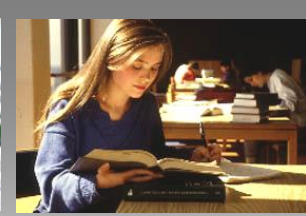
James J. Lehman, DC, MBA, DABCO
University of Bridgeport
College of Chiropractic





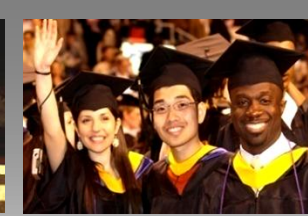
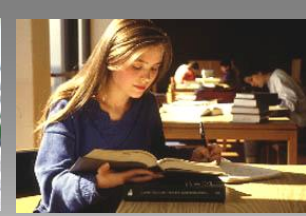
Generalized Pain Description

- **Joint pain** may be constant dull, deep ache but sharp upon motion
- **Muscle pain** may be a dull ache, crampy or spasm sensation
- **Trigger points** may be localized with pin point pain or diffuse with poor localization and paresthesias (formication)



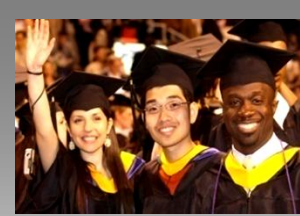
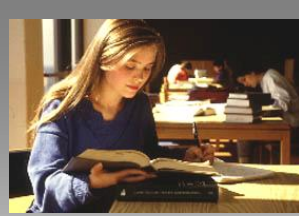
Generalized Pain Description

- **Nerve pain** may be:
 - Constant
 - Burning and or hot
 - Sharp pain without movement
 - Stabbing or lightning-like
 - Tingling and/or numbness



Generalized Pain Description

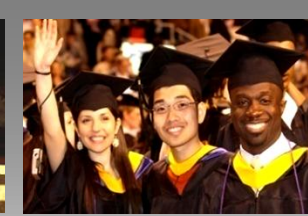
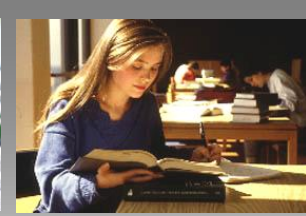
- **Ligament pain** may be a burning, dull or a deep ache but it may be referred to scleratomes
- **Bone pain** may be a deep burning or dull sensation
- **Vascular pain** is usually a throbbing sensation



Pain/Tenderness Grading Scale

- 0 = no pain
- 1 = pain with palpation
- 2 = pain and wincing with palpation
- 3 = pain, wincing and withdrawal from palpation
- 4 = will not permit palpation

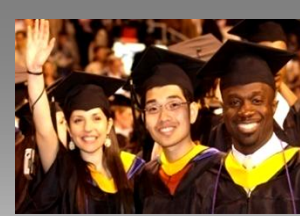
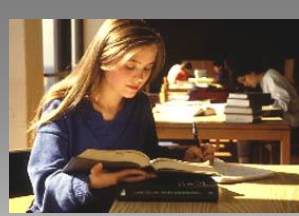
Cipriano



Cervico-thoracic Pain

- Differentiate the types of tissues that may be involved with a chief concern of neck and upper back pain...

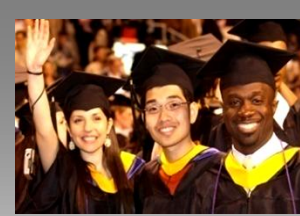
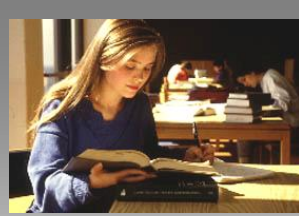




Osseous Pain

- Deep, burning, or dull pain

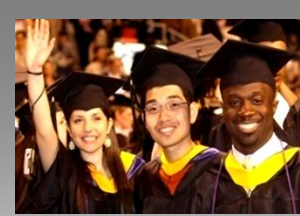
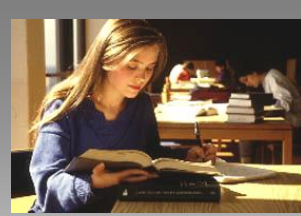




Osseous Pain

- Grade Three Sprain with Avulsion

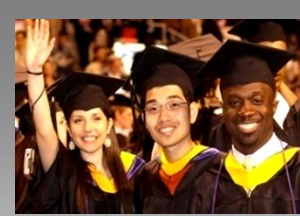
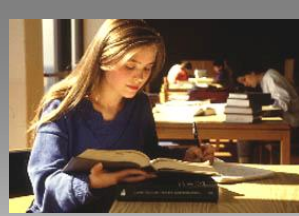




Osseous Pain

Painful bone spurs may appear on any bone on the body. Below are some common areas where spurs develop on the foot.





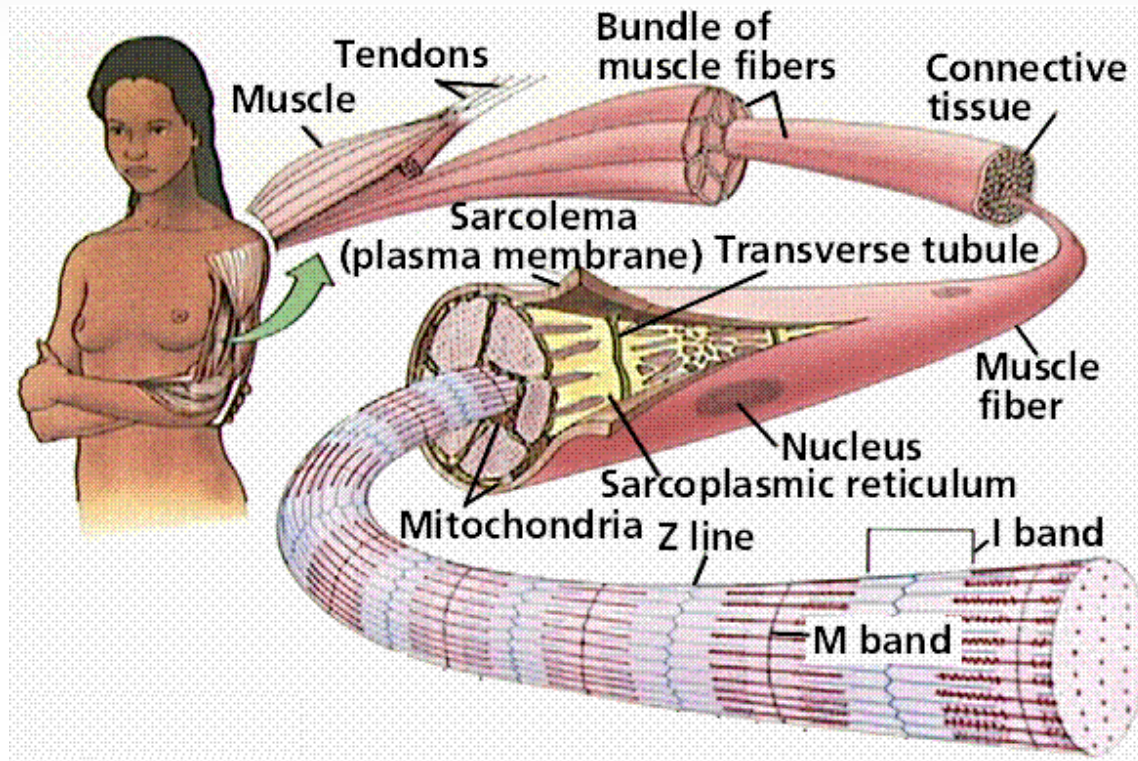
Spinal Muscle Pain

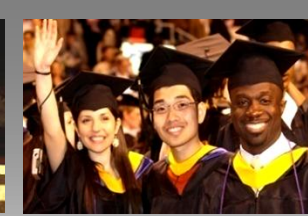
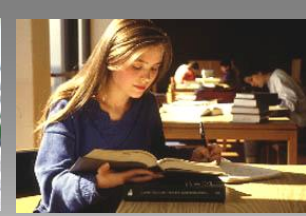
Superficial muscles Deep muscles



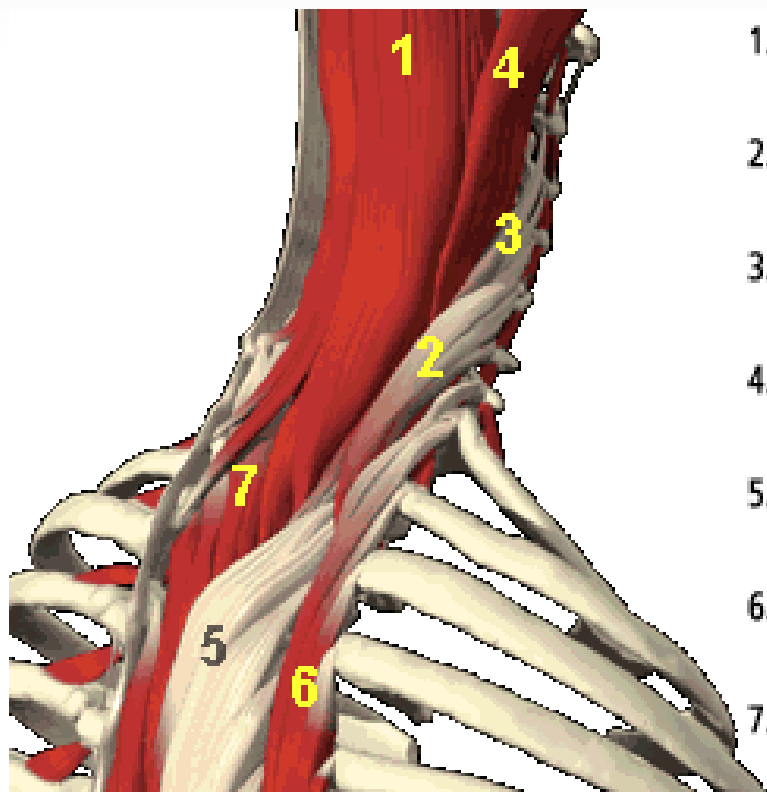
The spine is surrounded by many muscles and ligaments which give it great strength

Muscle Anatomy





Cervical Musculature



1. Semispinalis Capitus (head rotation/pulls backward)
2. Iliocostalis Cervicis (extends cervical vertebrae)
3. Longissimus Cervicus (extends cervical vertebrae)
4. Longissimus Capitus (head rotation/pulls backward)
5. Longissimus Thoracis (extension/lateral flexion vertebral column, rib rotation)
6. Iliocostalis Thoracis (extension/lateral flexion vertebral column, rib rotation)
7. Semispinalis Thoracis (extends/rotates vertebral column)

Strain of Middle Trapezius Muscle

- Crampy pain
- Knot
- Spasm pain
- Dull ache



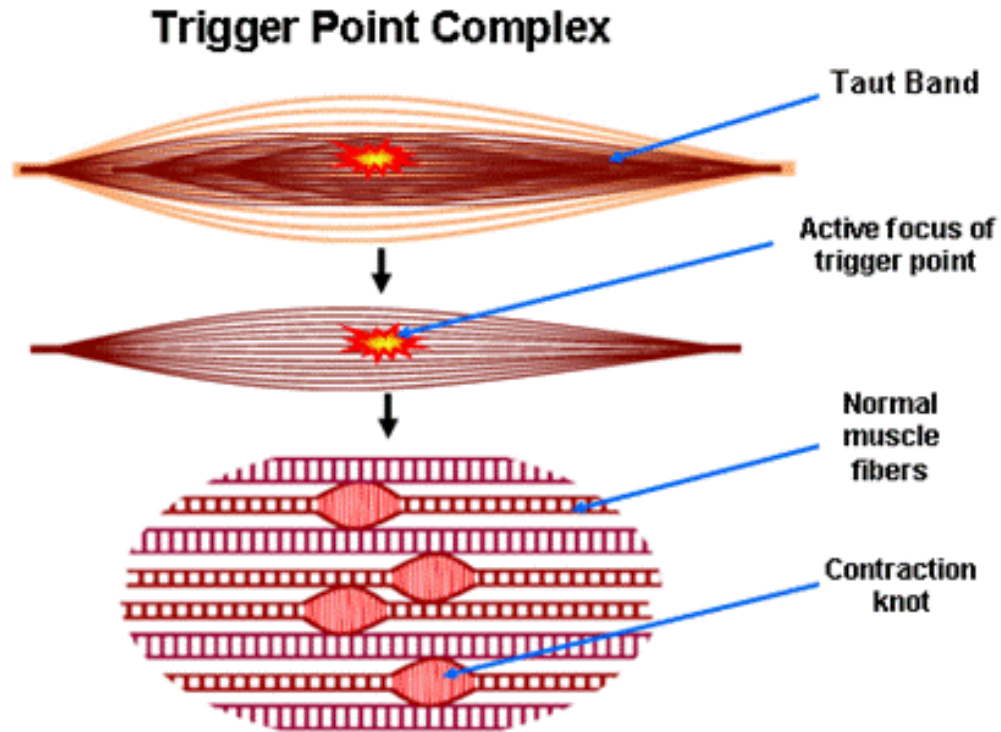
Strained muscle tissue

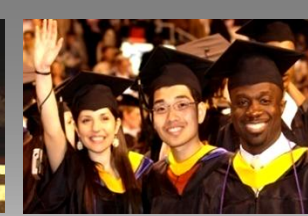
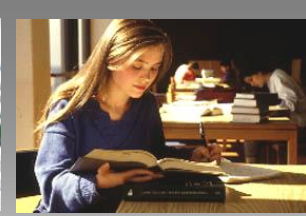


Normal muscle tissue



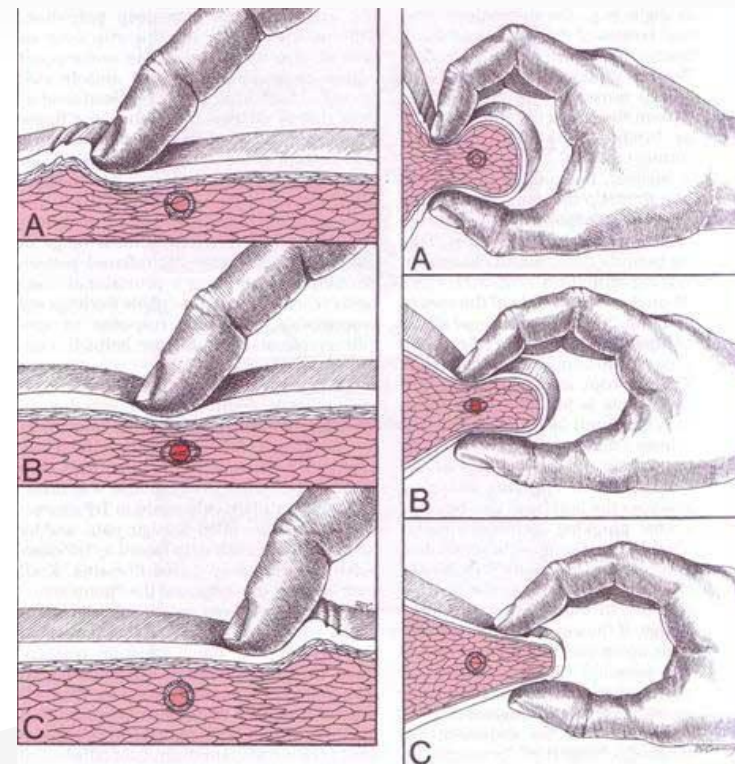
Myofascial Trigger Point

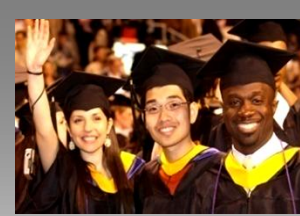
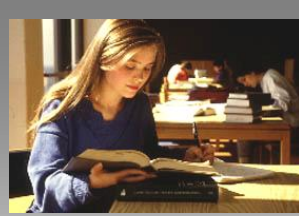




Myofascial Trigger Point

- Localized pain with palpation
- Active trigger point may produce referred pain

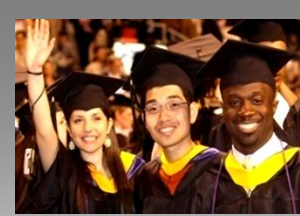
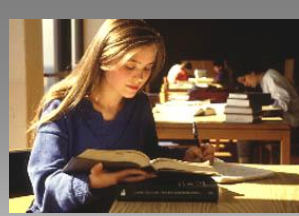




Myofascial Local Pain

- Pin point pain over paraspinal tissue trigger point

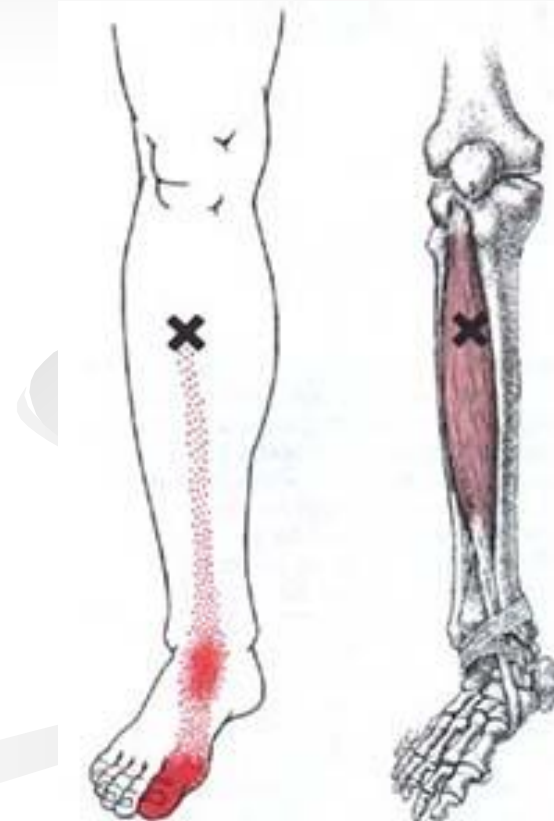




Myofascial Pain & Dysfunction Referred Pain

- Specific referenced muscle referral zones
- Anterior tibialis trigger point refers to the dorsum of foot and large toe

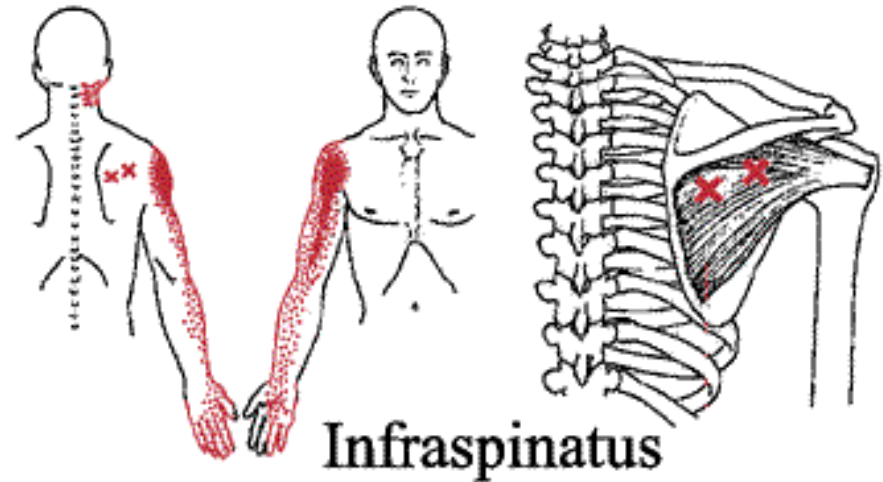
Travell and Simons

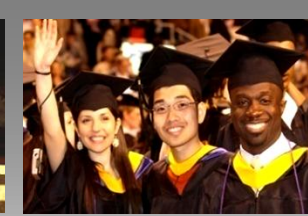
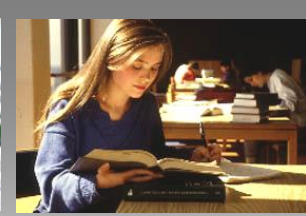


Myofascial Pain Syndrome

Referred Pain

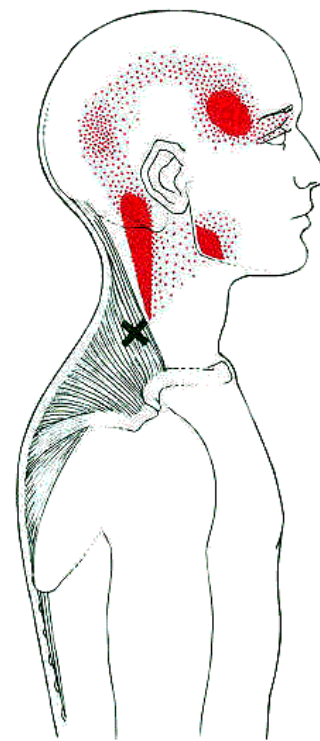
- Paresthesias
- Crawling sensation (formication)
- Dull or deep ache
- Myotogenous
- Myotomal

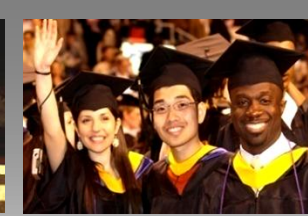
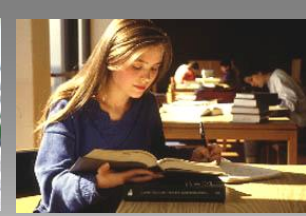




Myofascial Referred Pain Upper Trapezius Fibers

- Headache
 - Temporal
 - Cervicogenic
- Tension neckache
- Angle of jaw pain





Sternocleidomastoid Muscle Clavicular Division

- Tension headaches
- Atypical facial neuralgia
- Cervicocephalgia



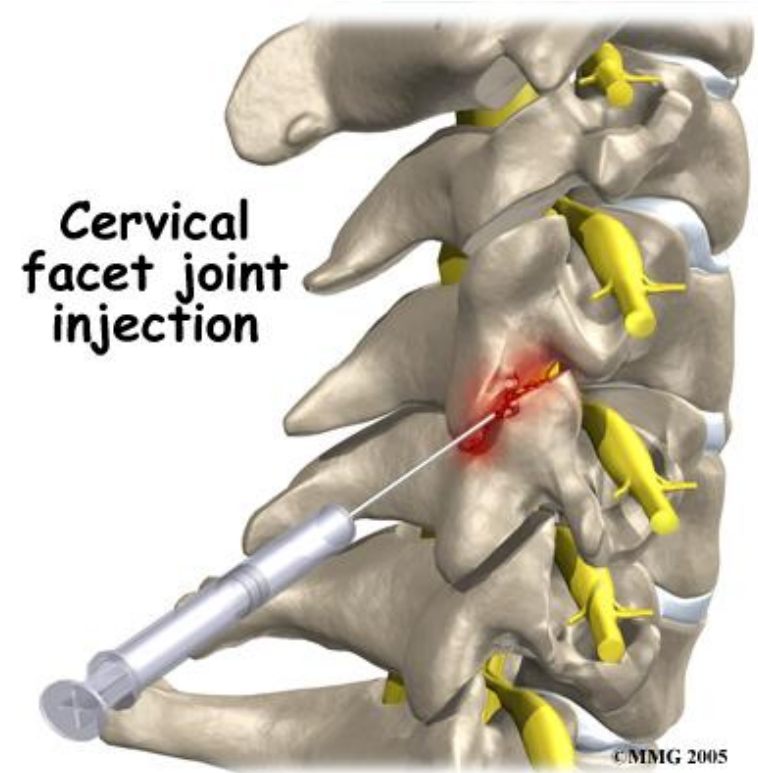


Joint Pain

Zygapophyseal or Facet Joint

- Sharp pain on motion
- Constant dull or deep ache

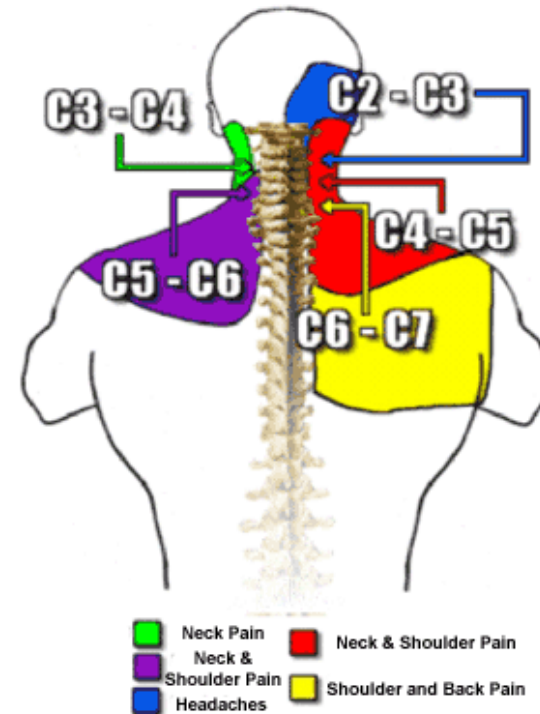
Dwyer, April, Bogduk



Ligament Pain Scleratogenous Pain

- Resembles radiating pain but it is a referred deep, dull ache

Referred Pain Areas From Ligament Injury / Instability

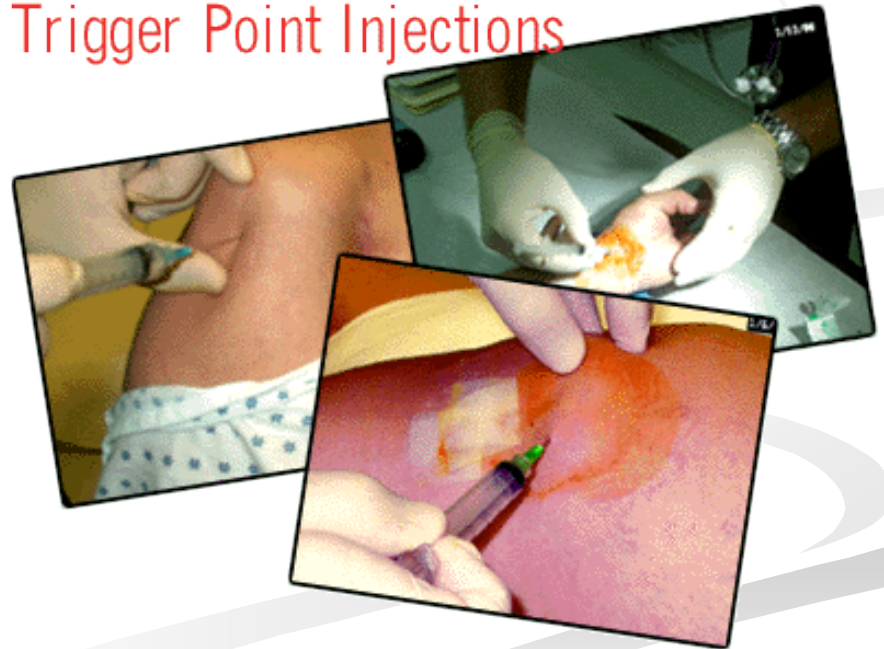


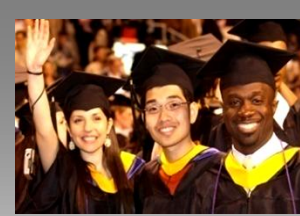
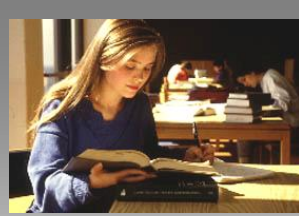
Scleratogenous or Myofascial Triggers

- Diffusely referred and hard to localize
- Deep and achey quality

Kellgren & Feinstein

Trigger Point Injections



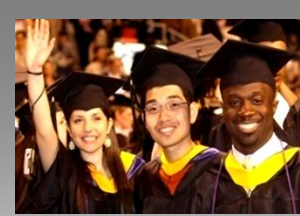
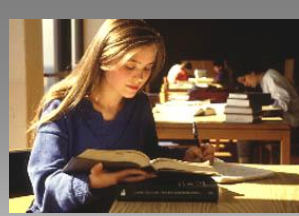


Prolotherapy

Ligament Regeneration Therapy

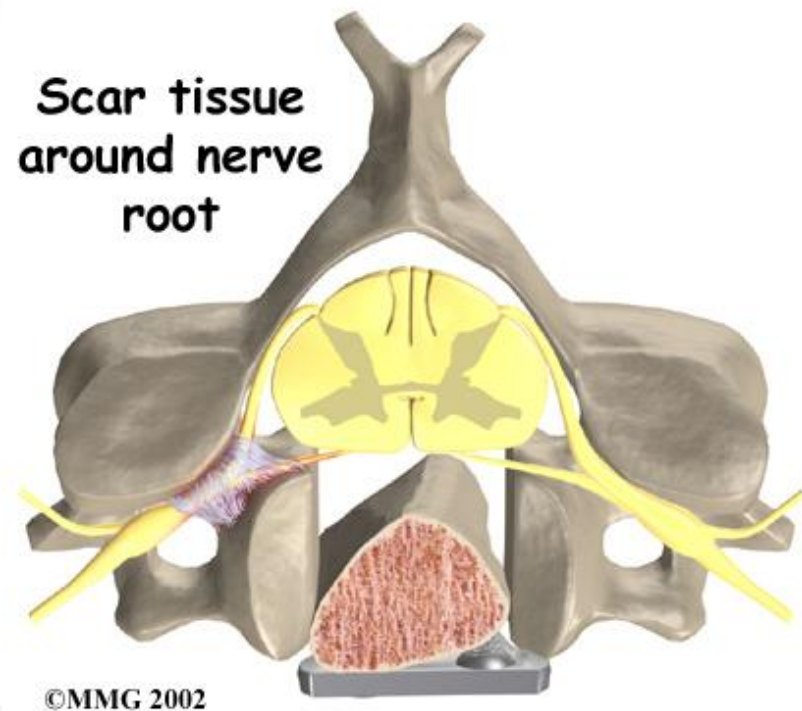
- May relieve chronic pain related to scleratogenous origin and improve joint function with hypermobility due to lax ligaments





Nerve Pain

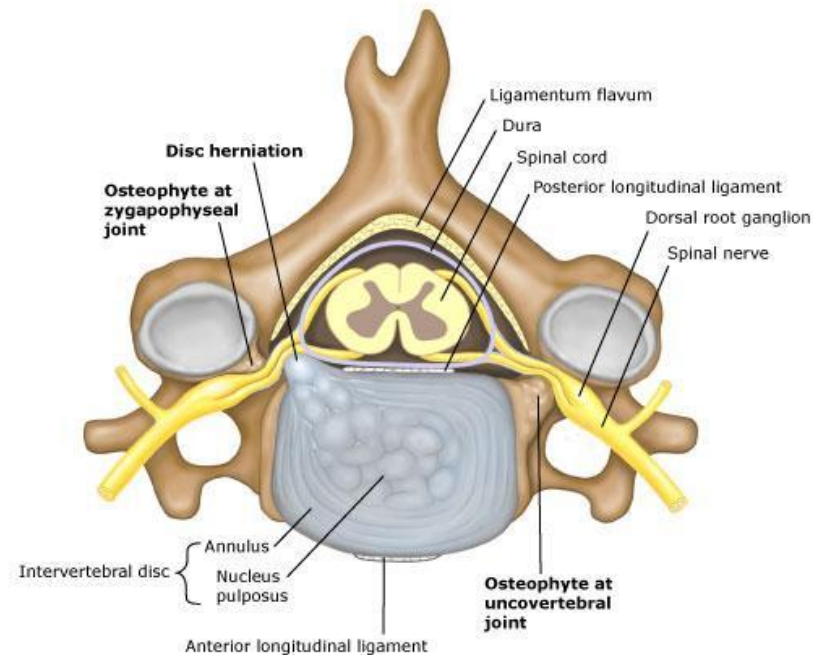
- Burning and/or hot
- Tingling and/or numbness
- Nerve root tension signs



Neuropathy

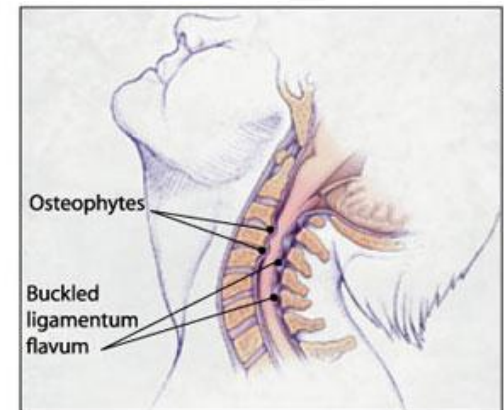
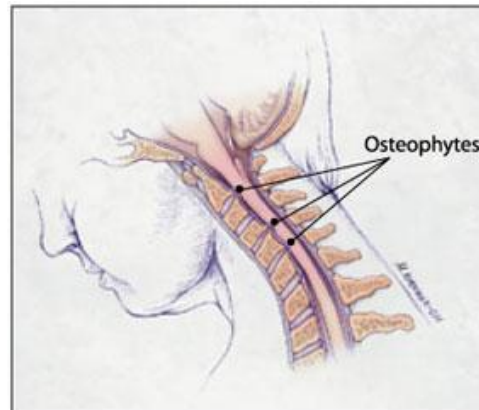
Nerve Root Compression

- Sharp pain but not on motion
- Radiating pain
- Cervical compression tests



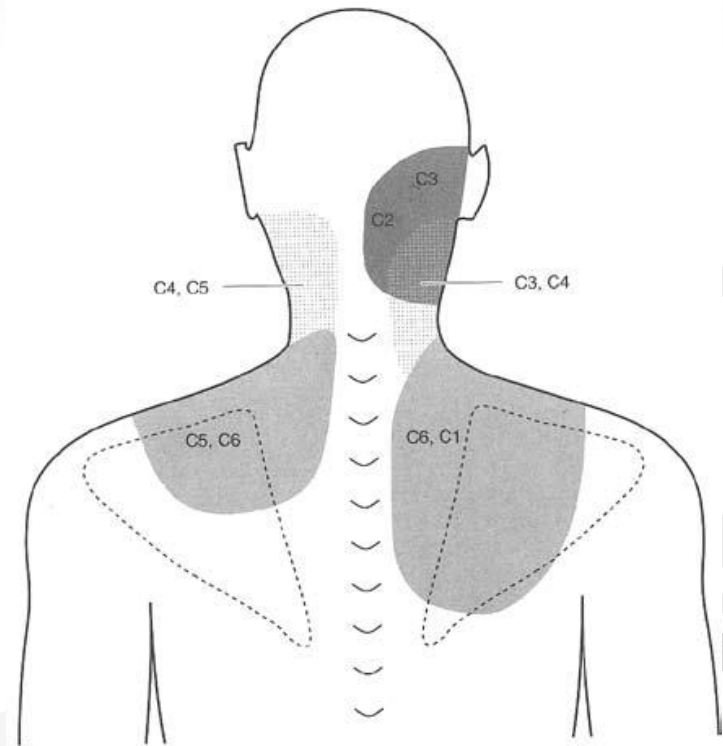
L'Hermitte's Sign Nerve Pain

- Stabbing or lightning-like pain



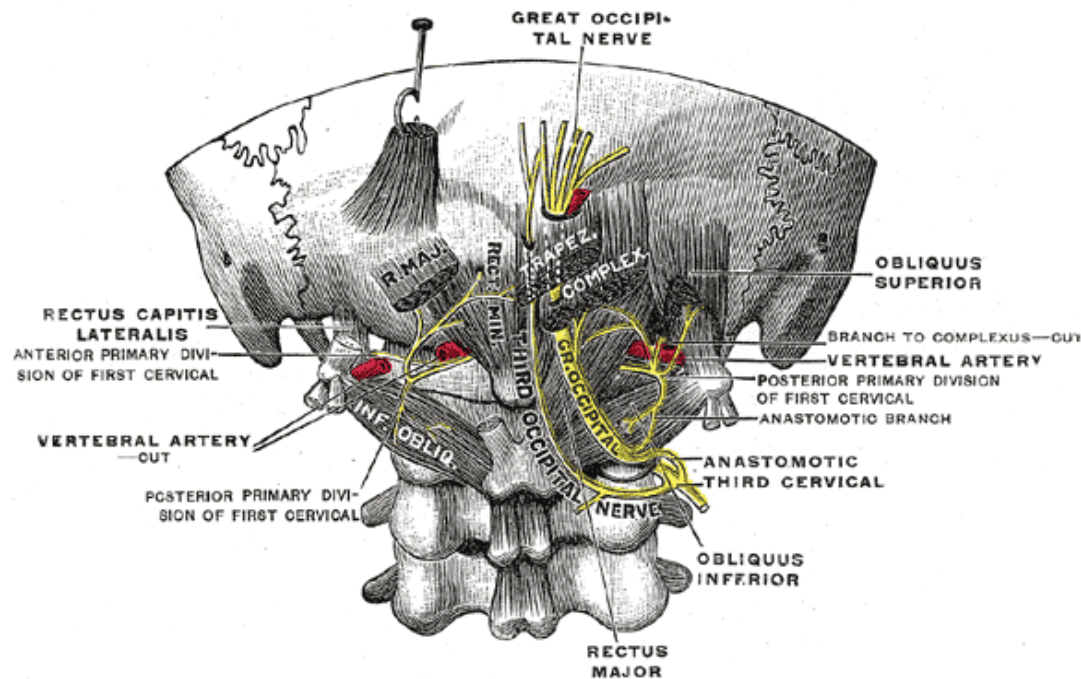
Cervicogenic Cephalgia

- Head pain that is referred from the bony structures or soft tissues of the neck is commonly called "cervicogenic headache."



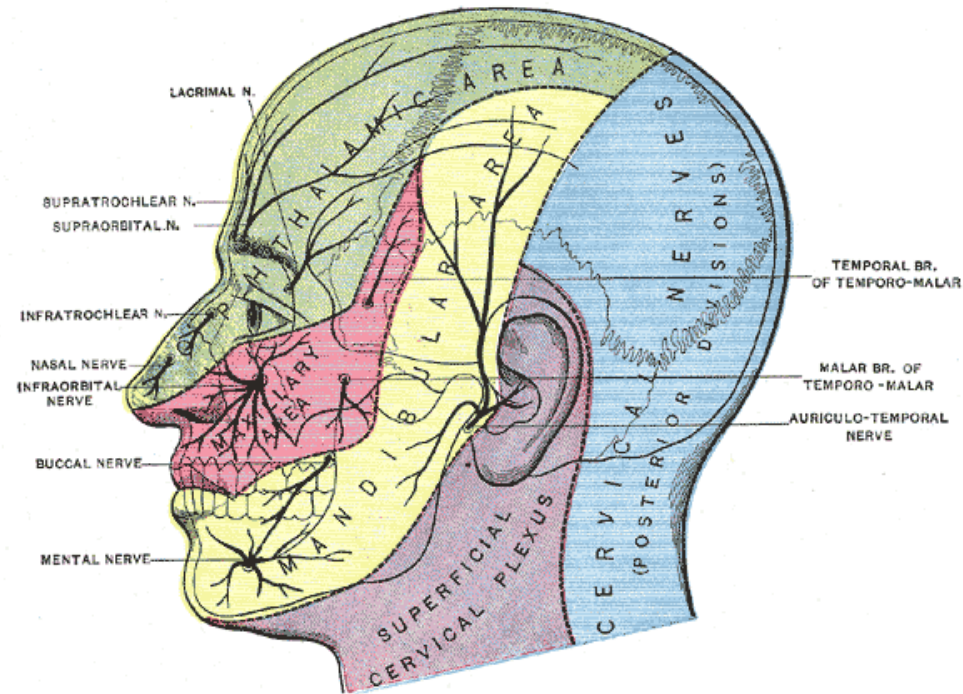
Cervicogenic Headaches Neurogenic

- Neurogenic
- Occipital neuralgias
- Greater Occipital (2nd Cervical)
- Third Occipital



Cervicogenic Headaches Neurogenic

- Differentiate Cranial and Occipital neuralgias

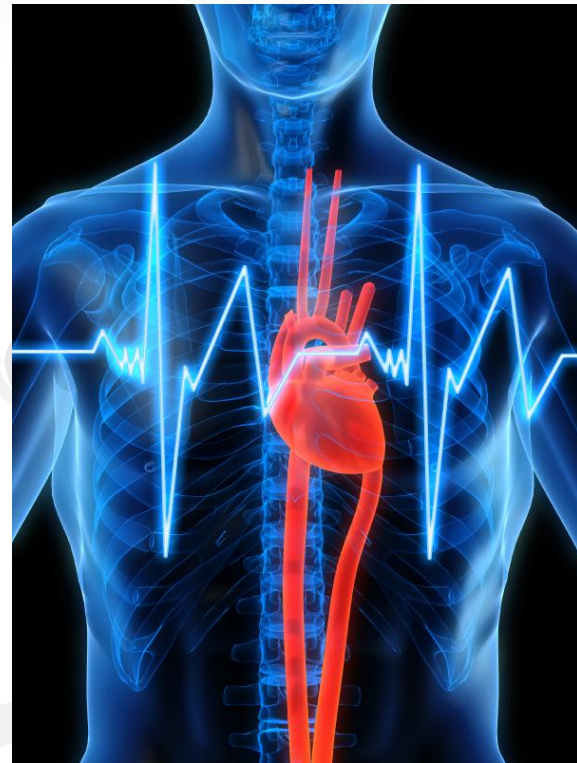


A collage of four images: a scenic view of a lake and campus buildings, a group of students walking on a path, a student reading a book in a library, and three graduates in caps and gowns.

Cardiovascular Pain

Angina

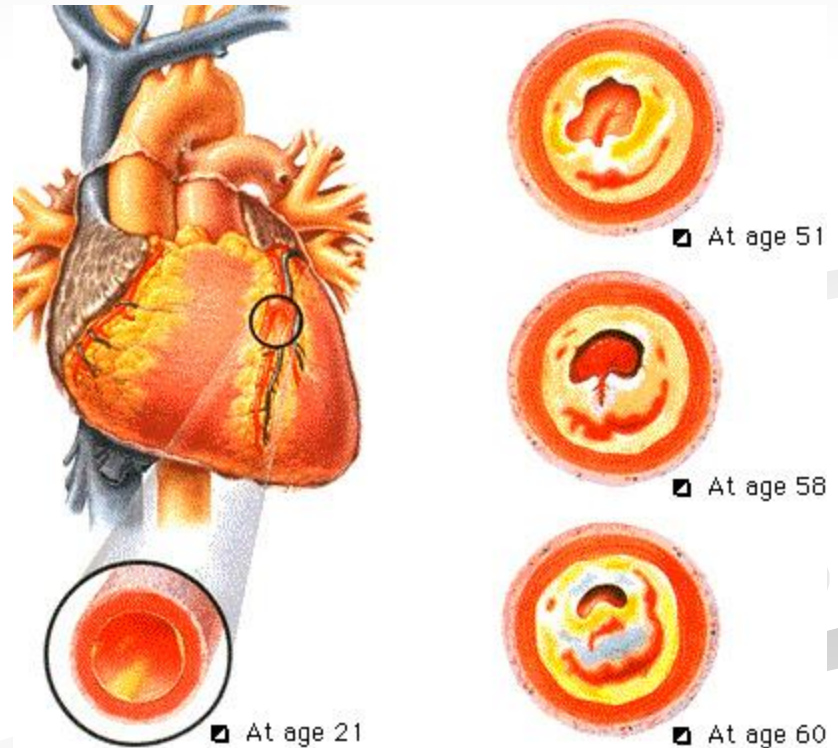
Chest pain with exertion that settles within a few minutes with rest



Cardiovascular Pain

Myocardial Infarction

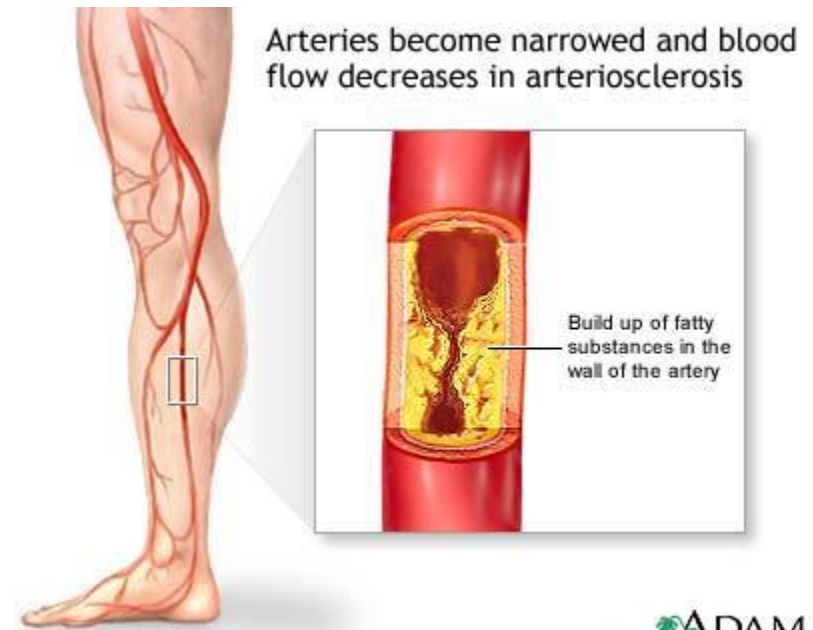
- Heaviness or tight chest pain possibly including upper posterior thoracic spine, throat and arm that does not settle within 20 minutes

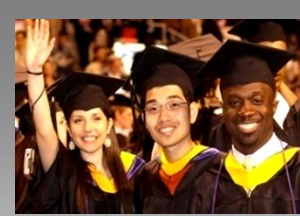
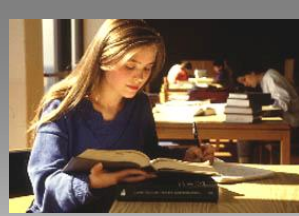


Arteriosclerosis

Intermittent Claudication

- Cramping pain in lower extremities with exertion that is relieved with rest or relaxing

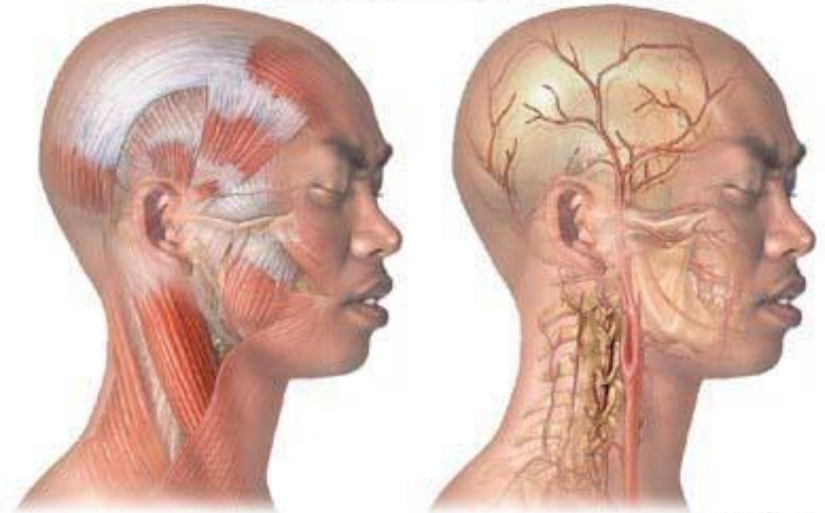




Vascular or Muscle Cephalgia

- Tension headache is the most common primary headache and accounts for 90% of all headaches.

Most headaches are caused by muscle contraction or blood flow problems



© ADAM, Inc.



Vascular Pain

Migraine and Cluster Headaches

- Neurovascular headaches are the second most common primary headaches.
- Throbbing pain



Blood vessel abnormalities are a component of vascular headaches such as migraines and cluster headaches

Headache Differential Diagnosis

Headaches

Sinus:
pain is
behind
browbone
and/or
cheekbones



Cluster:
pain is
in and
around
one eye

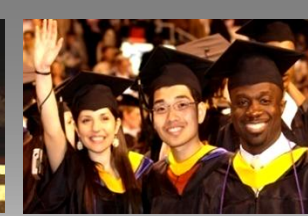
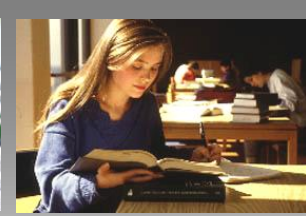


Tension:
pain is
like a band
squeezing
the head



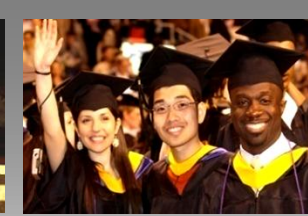
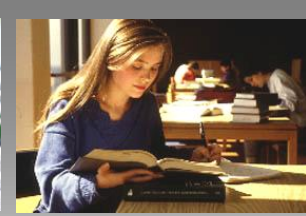
Migraine:
pain, nausea
and visual
changes are
typical of
classic form



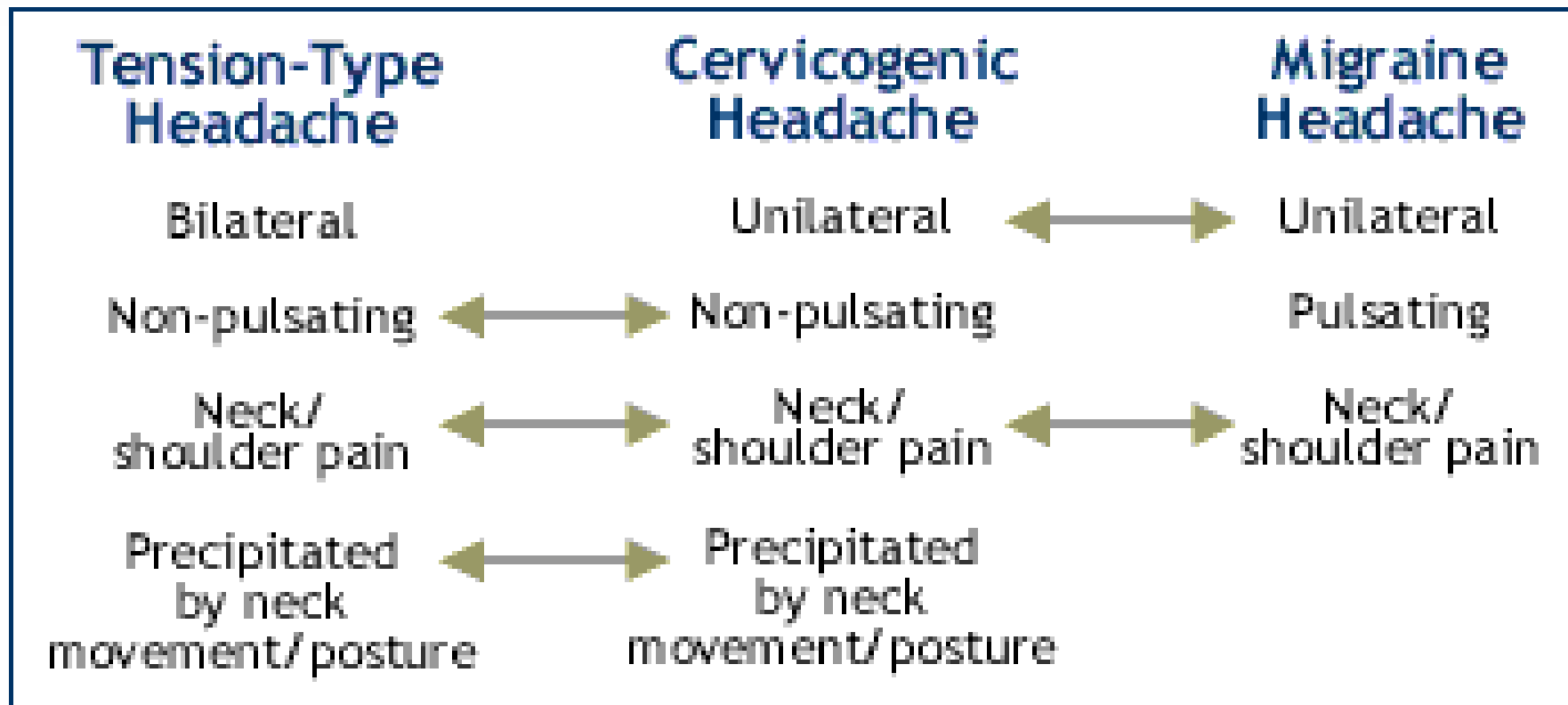


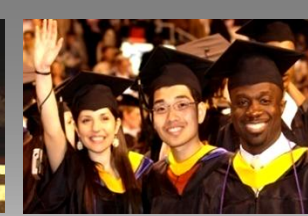
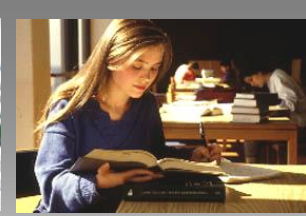
Secondary Headache

- Secondary headaches are caused by other medical conditions, such as sinusitis, neck injuries or abnormalities, and stroke. About 2% of headaches are secondary headaches caused by abnormalities or infections in the nasal or sinus passages.



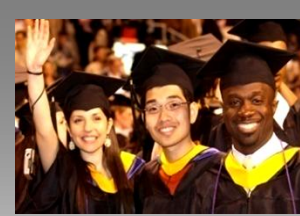
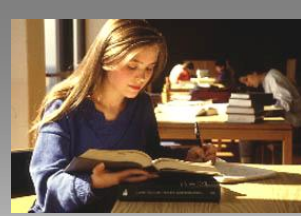
Differential Diagnosis





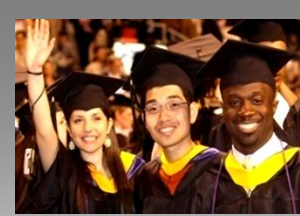
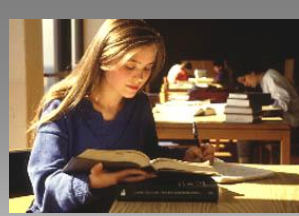
Cerebrovascular Cephalgia

- ***The worst headache ever...***
- Unrelenting pain
- Unable to sleep
- Nausea, numbness, nystagmus
- Dizziness, diplopia, drop attack, dysarthria, dysphagia



FAST Testing Protocol

- **F**ace = smile, stick out tongue
- **A**rms = raise arms and check for drifting
- **S**peak = able to converse, no confusion
- **T**reatment = Call 911 and arrange for ambulance



CVA or TIA

- Take vital signs
- Orthopedic testing, manipulation and myofascial treatments are contraindicated
- Do not leave the patient until ambulance arrives
- Do not treat patient with any manual methods