Carpal tunnel

- Carpal tunnel syndrome
  - median neuropathy at the wrist
  - median nerve is compressed
  - leading to
    - Pain
    - paresthesias
    - Muscle weakness
  - only elicits symptoms in
    - thumb
    - index
    - middle fingers
    - May on palm
  - common in women
  - peak incidence around age 42
  - But occur at any age
  - Life time risk is 10%
  - most cases are idiopathic
  - Symptoms
    - first
      - numbness and paresthesia
      - Ussually appear at night
      - Sleeping positions
    - Difficulty gripping and making a fist
    - dropping objects
    - weakness
    - chronic cases
      - gradually increasing symptoms over time
      - wasting of the thenar muscles
  - Causes
    - **Most idiopathic**
    - **Family history increase susceptibility**
    - **stress, trauma, pregnancy**
    - **multiple myeloma, amyloid**
    - **rhematoid arthritis, acromegaly**
    - **mucopolysaccharidoses**
    - **hypothyroidism, osteoarethritis**
    - **diabetes, hematomas, deformities**
  - Prevention
    - take frequent breaks from repetitive movement
    - reduce your force and relax your grip
    - Improve your posture
    - Keep Your Hand Warm
  - Treatment
    - challenging to treat
    - If reversible or 2ndery
      - treatment of primary disorder corrects it
    - Immobilizing braces
    - Physiotherapy
    - steroid injections
      - temporary
    - **Carpal tunnel release surgery**
- space between
  - Flexor Retinaculum
  - carpal bones
- Contents
  - Tendons of
    - flexor digitorum profundus (4)
    - Separated by flexor synovial sheath
    - flexor digitorum superficialis (4)
    - flexor pollicis longus
  - Nerves
    - Median nerve
- bending the wrist at 90 degree
  - will decrease the size of the canal
  - aid diagnosis of CTS
- Guyon's canal syndrome
  - entrapment of the ulnar nerve
  - causes pain, numbness, and tingling
  - in the ring and little fingers
  - loss of sensation
  - motor weakness
  - treated surgically