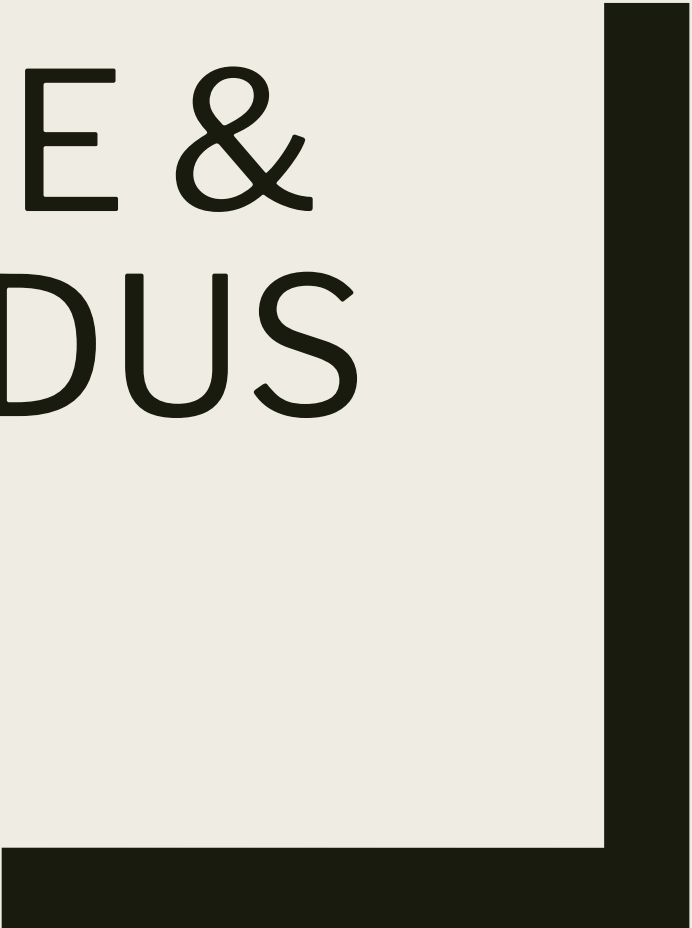




HAMMER TOE & HALLUX RIGIDUS

BY: DR. ANTHONY J. LOMBARDI
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VANCOUVER, CANADA



RELATED BY A COMMON THREAD: DEGENERATIVE JOINT CHANGES



WHAT IS HAMMER TOE

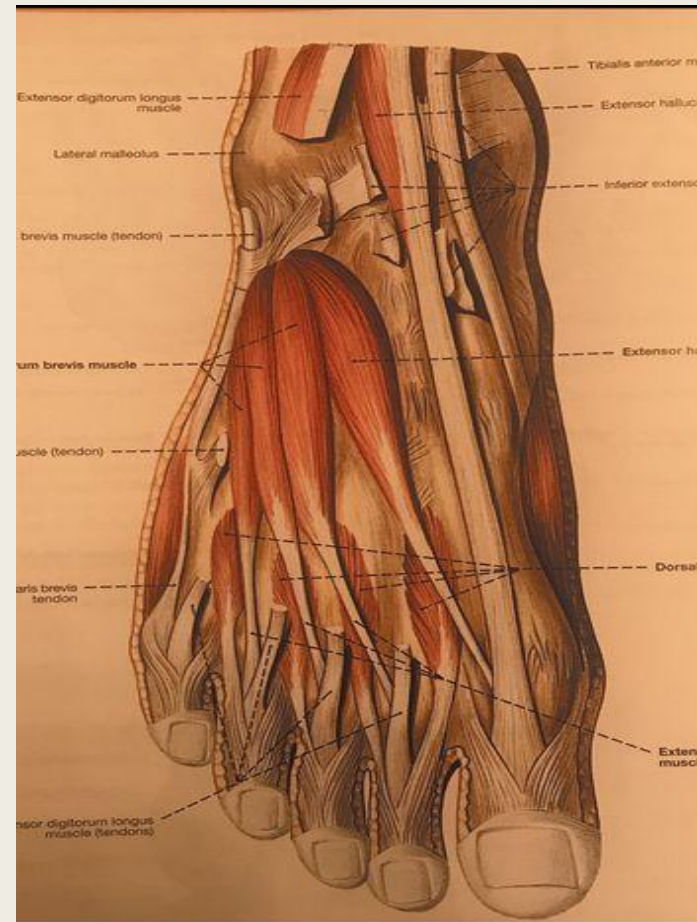
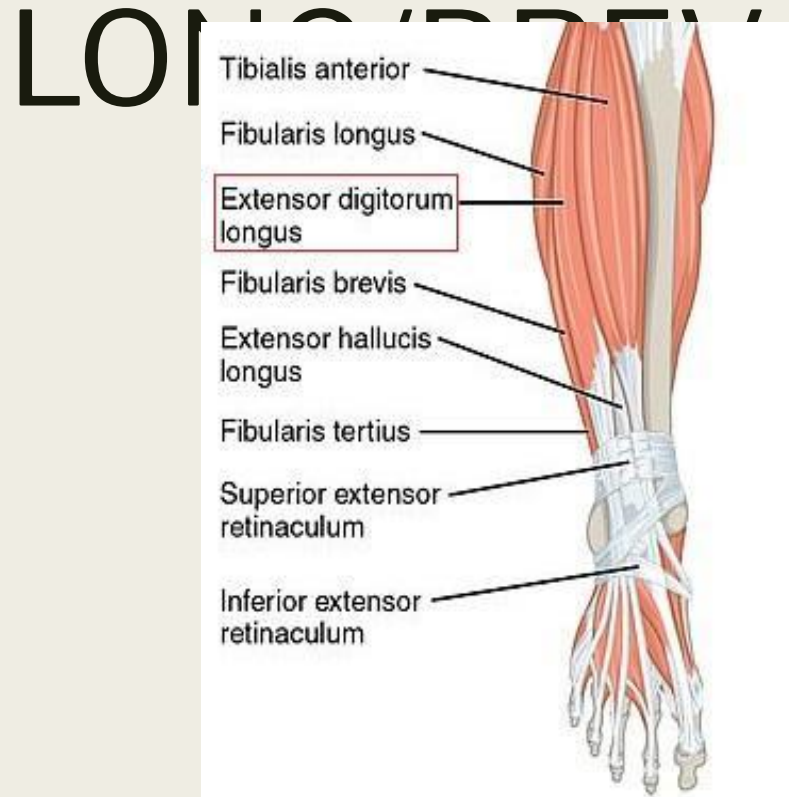
- EXTENSION MTP
- FLEXION OF PIP
- EXTENSION OF
DIP



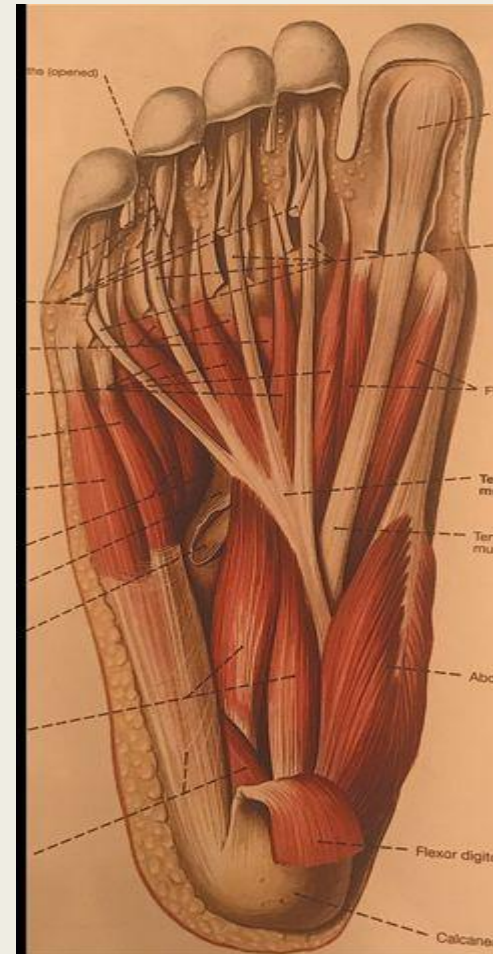
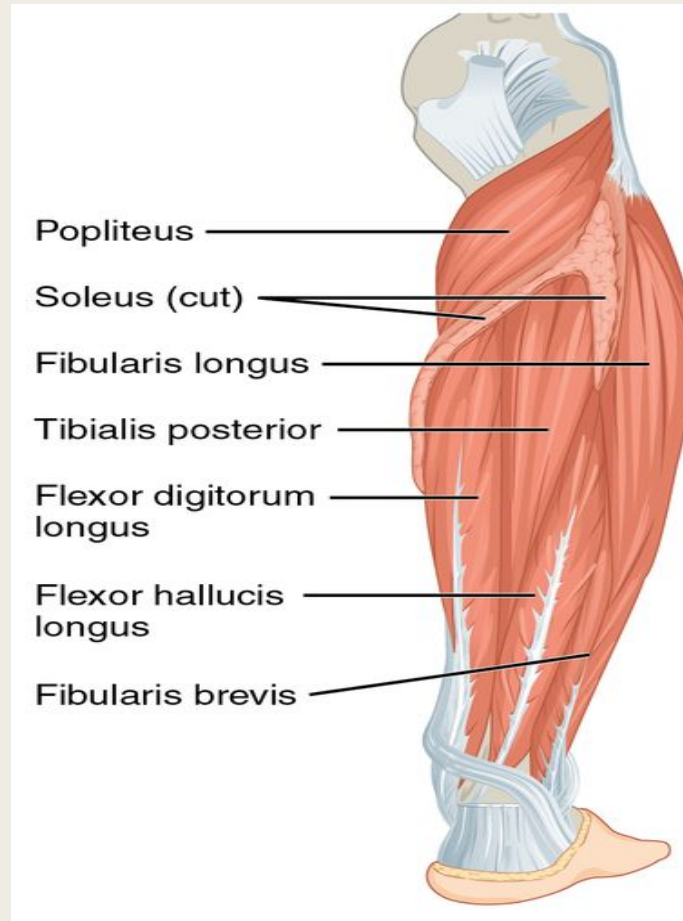
CAUSES OF HAMMER TOE

- ILL FITTING SHOES
- TRAUMA
- MUSCLE IMBALANCE

ANATOMY OF HAMMER TOE: EXTENSOR DIGITORUM



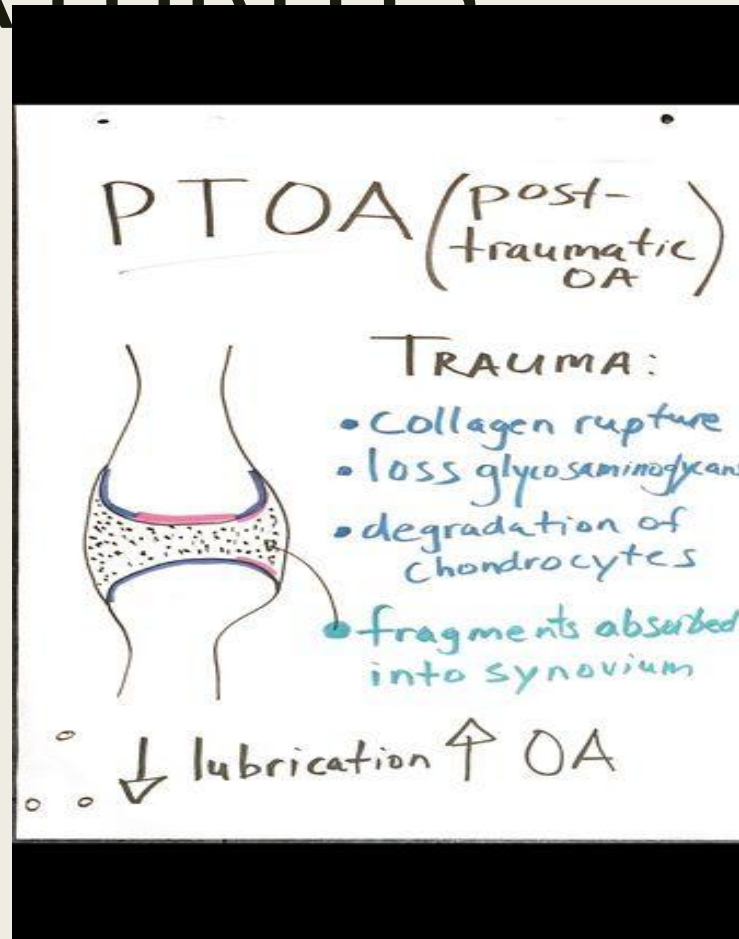
FLEXOR DIGITORUM LONGUS



PATHOLOGY OF HAMMER TOE

- RESEARCH REVEALS THAT EDL & EDB ARE 2.5 TIMES TIGHTER THAN THEIR ANTAGONISTIC PAIRS FDL

PATHOLOGY OF HAMMER TOE: POST-TRAUMATIC OSTEOARTHRITIS



OUTLINE OF HAMMER TOE TREATMENT

- HIGH FREQUENCY TO PIP
- BRACE DIP INTO FLEXION
- MOTOR POINTS OF EDL,EDB,FDL
- RUNNING MOTOR POINTS @ OFFSETTING FREQUENCIES
- 2X WEEK FOR 4 WEEKS

TREATMENT: HAMMER TO

- HIGH FREQUENCY TO
- 100 HZ
- 15-20 MINS

High Freq Electroacupuncture

WHEN: Sclerotomal pain
(dull, ill-defined, deep)

WHERE: joint, ligament, capsule,
bone, skin, scar.

WHY: reduce pain, ↓ hypersensitivity
(neuromodulate before manual)

WHAT: 100 Hz, self-guided,
15-20 min

BRACING THE DIP

- BRACING THE DIP PROMOTES FLEXION WHICH COUNTER-BALANCES EDL OVER-TENSION

BRACING HAMMER TOES



MOTOR POINTS: HAMMER TOE

- EDL: BISECT FIBULAR HEAD AND TIBIAL TUBEROSITY AND MOVE 1 INCH INFERIOR
- EDB: 1 INCH ANTERIOR TO SINUS TARSI
- FDL: 4 INCH SUPERIOR TO MEDIAL MALLEOLUS & 1 INCH POSTERIOR

OFF-SETTING FREQUENCY STIMULATION

- ATTACH EDL & EDB MOTOR POINTS
& RUN AT 2 HZ
- ATTACH FDL MOTOR POINT WITH LR
3 & RUN AT 10 HZ

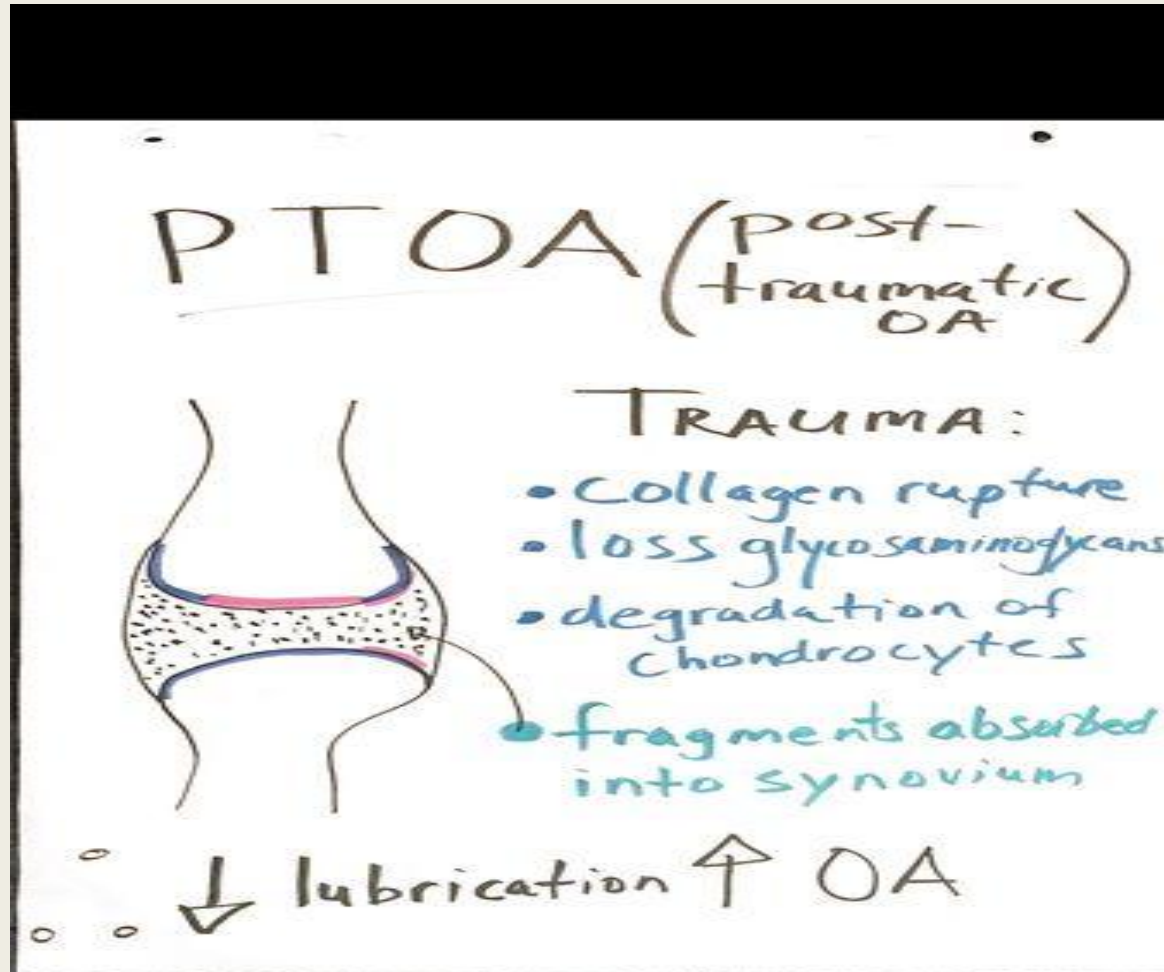
CAUSES OF HALLUX RIGIDUS

- TRAUMA
- HALLUX VALGUS
- TURF TOE



CAUSES HALLUX RIGIDUS

■ TRAUMA



CAUSES OF HALLUX RIGIDUS

■ TURF TOE



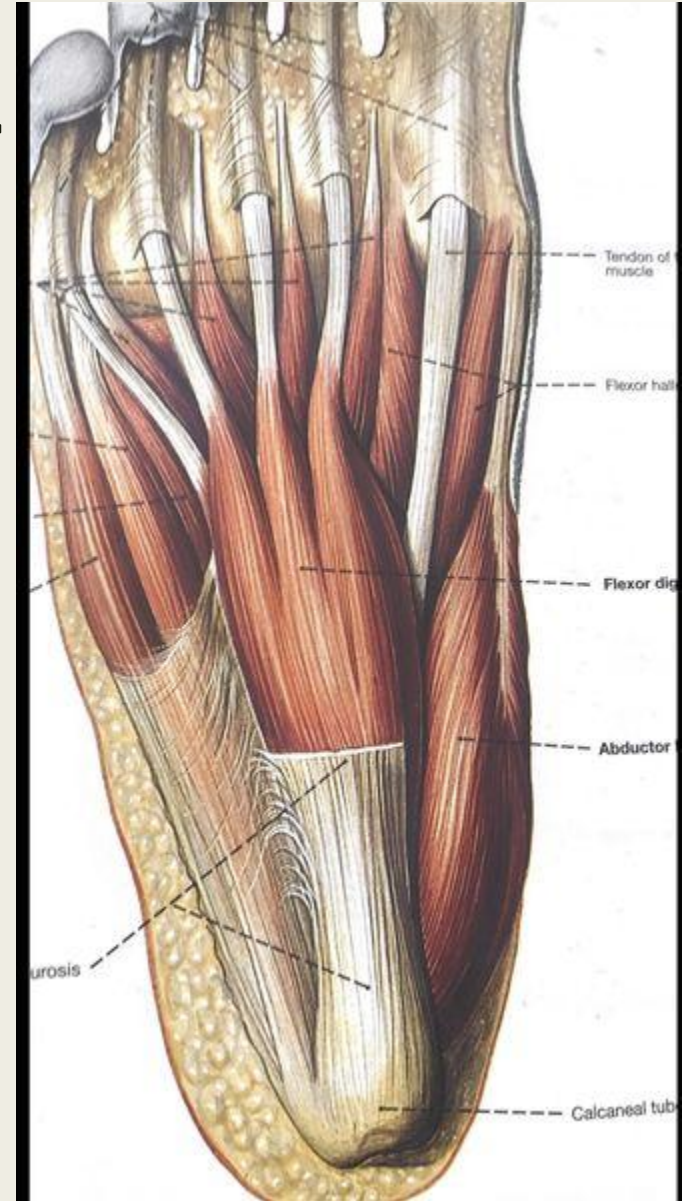
CAUSES OF HALLUX RIGIDUS

■ HALLUX VALGUS



ANATOMY: MTP JOINT & SUPPORTING MUSCULATURE

- FLEXOR HALLUCIS BREVIS
- ABDUCTOR HALLUCIS



TREATMENT: HALLUX RIGIDUS

- HIGH FREQUENCY TO MTP
- LOW FREQUENCY STIM TO AH/FH
- ROCKER SOLE FOOTWEAR

TREATMENT: ROCKER SOLE SHOES

