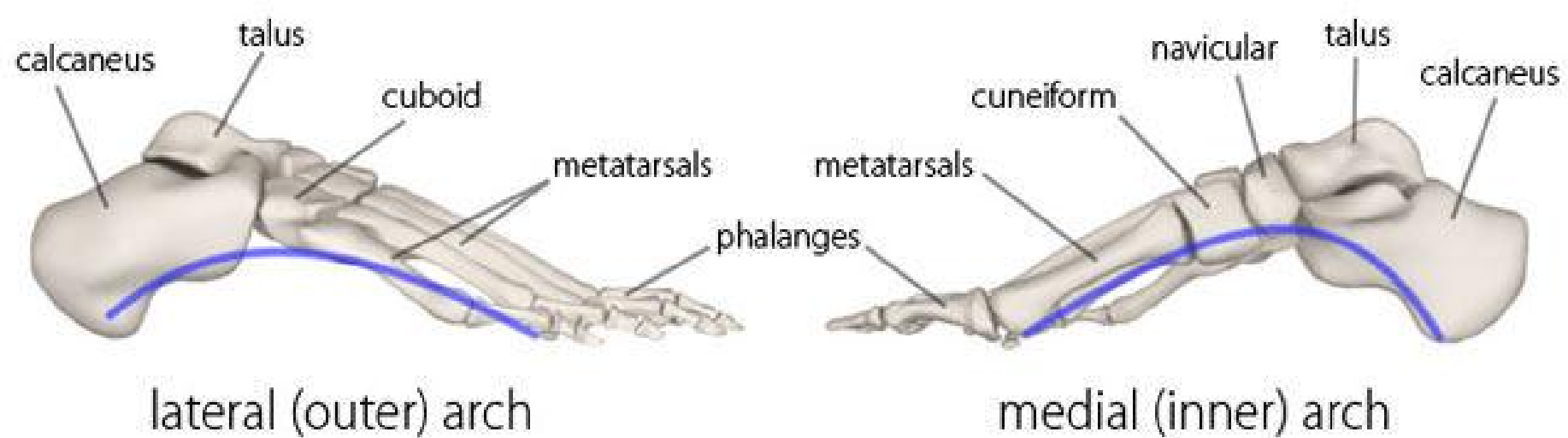
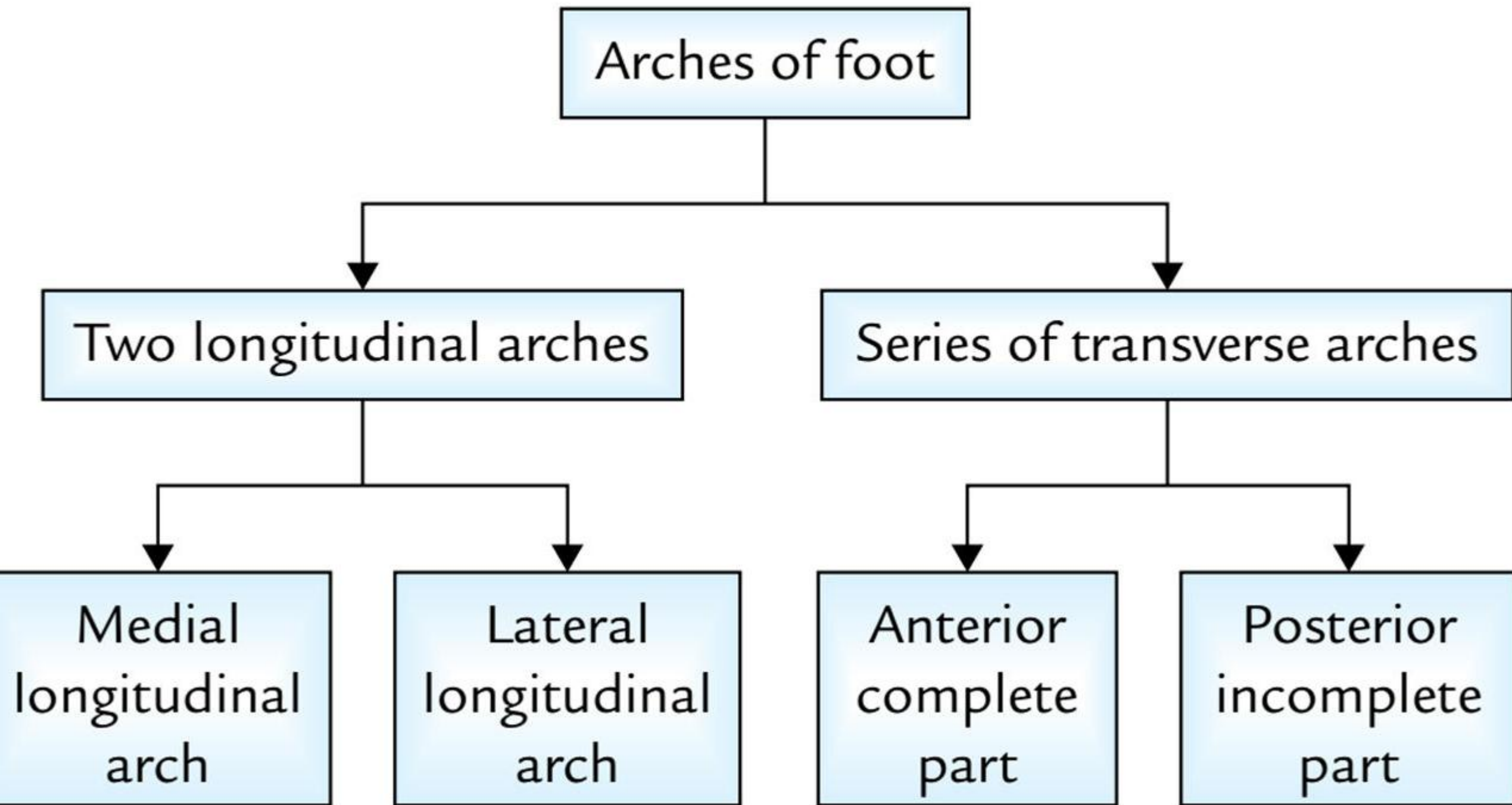


# Learning Objectives

- Introduction
- Classification
- Medial Longitudinal Arch
- Lateral Longitudinal Arch
- Proximal Transverse Arch
- Distal Transverse Arch
- Mechanism of Arch Support
- Deformities of Foot

## Foot Prints





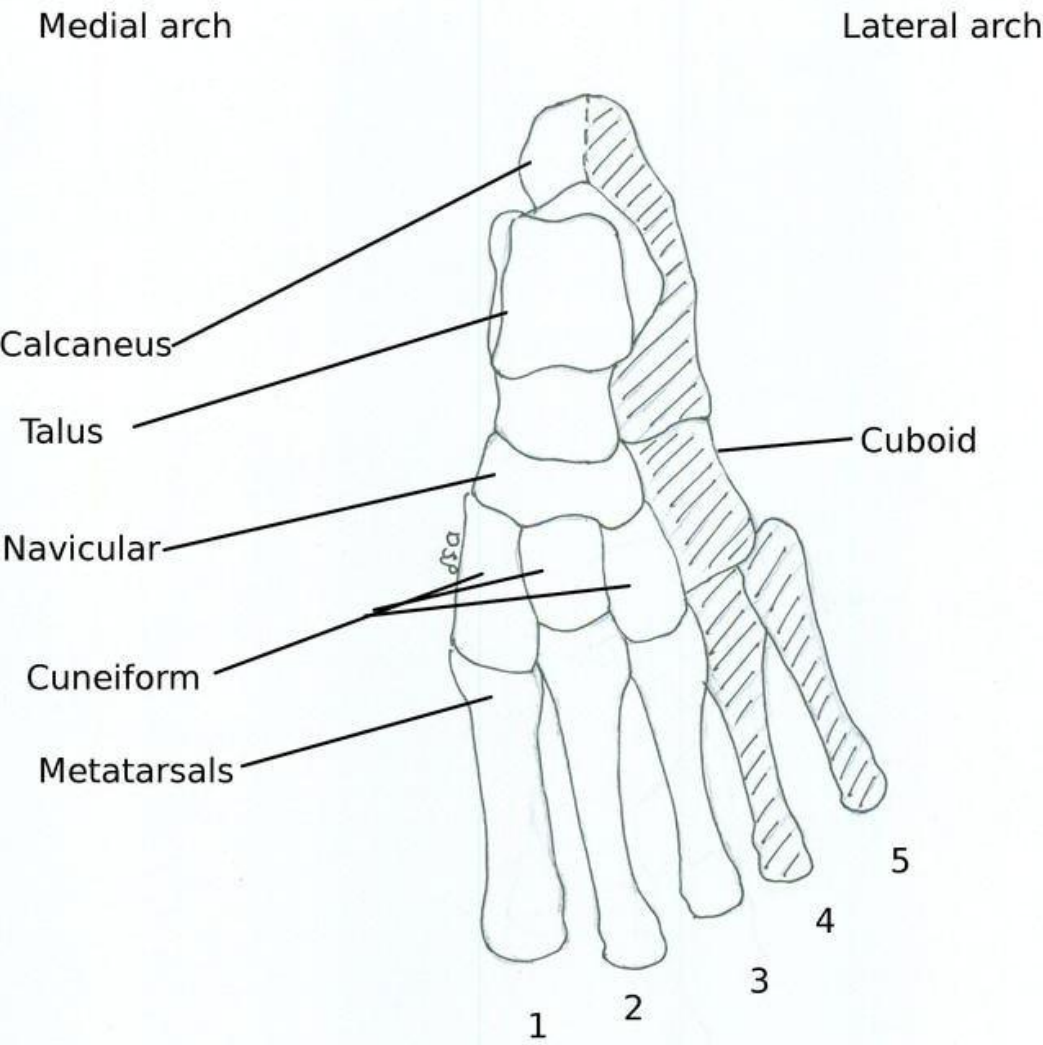
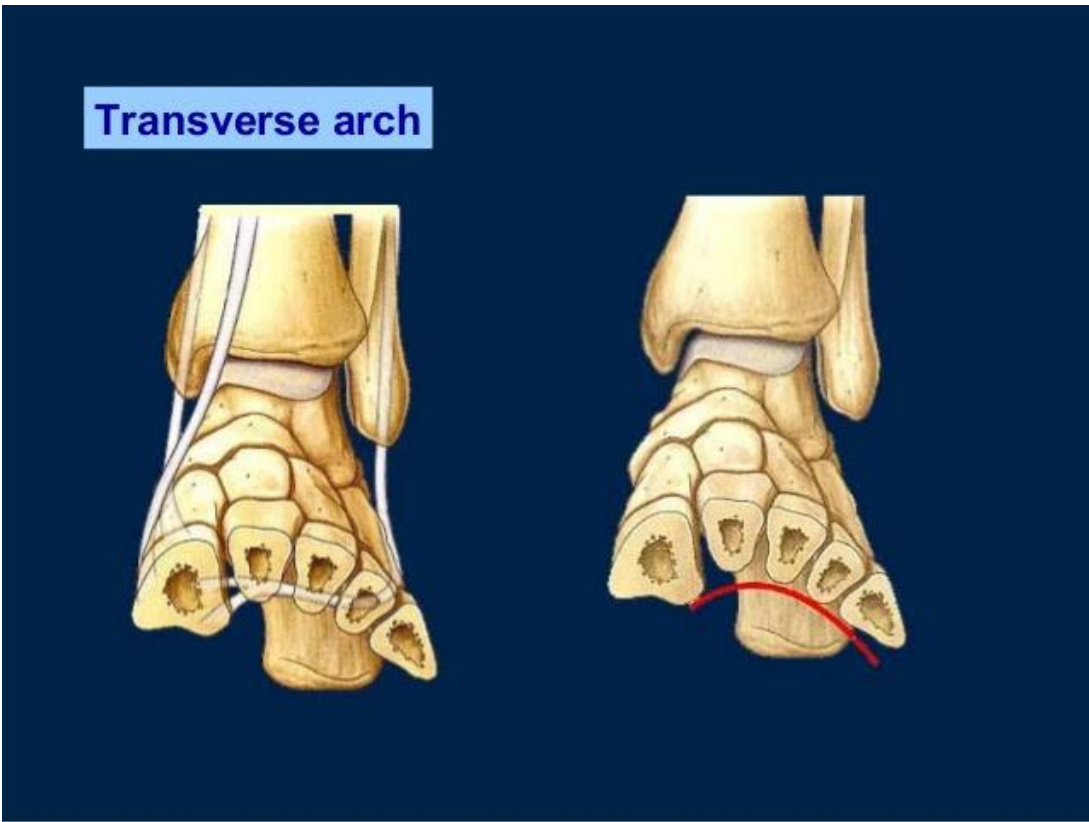
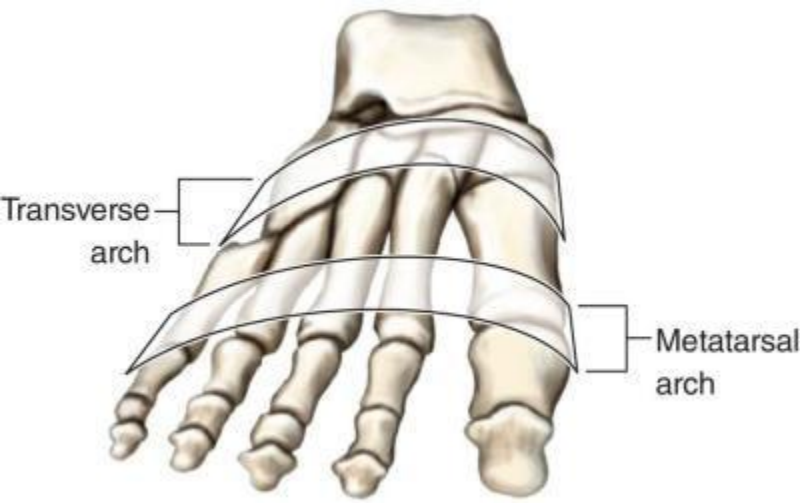
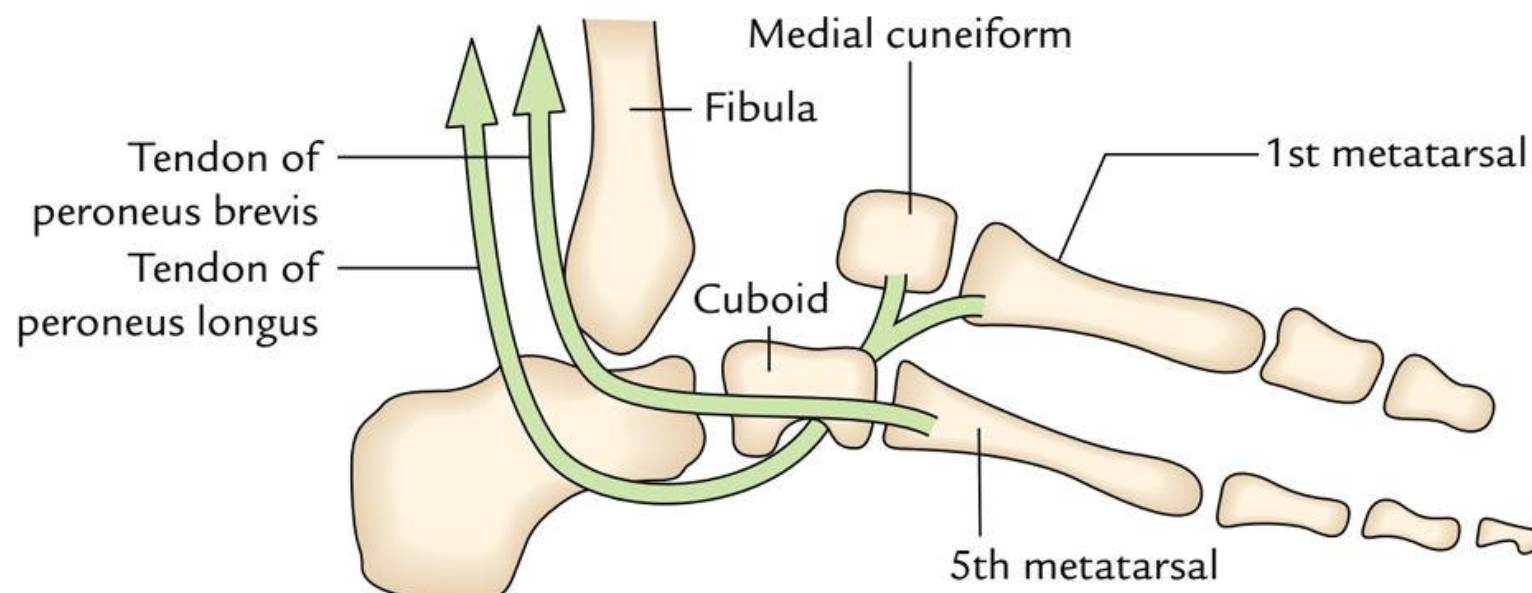
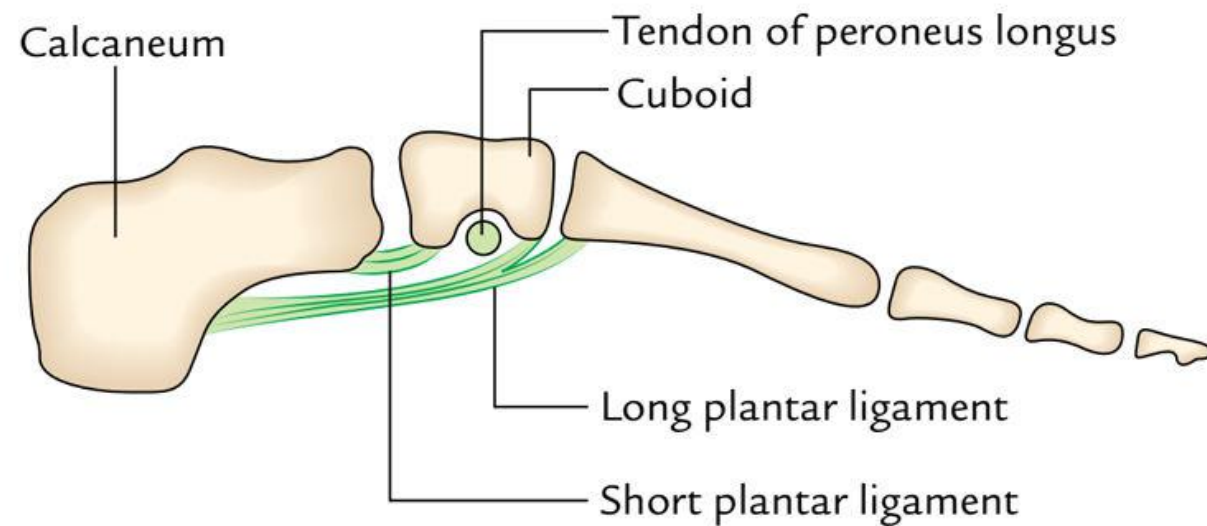
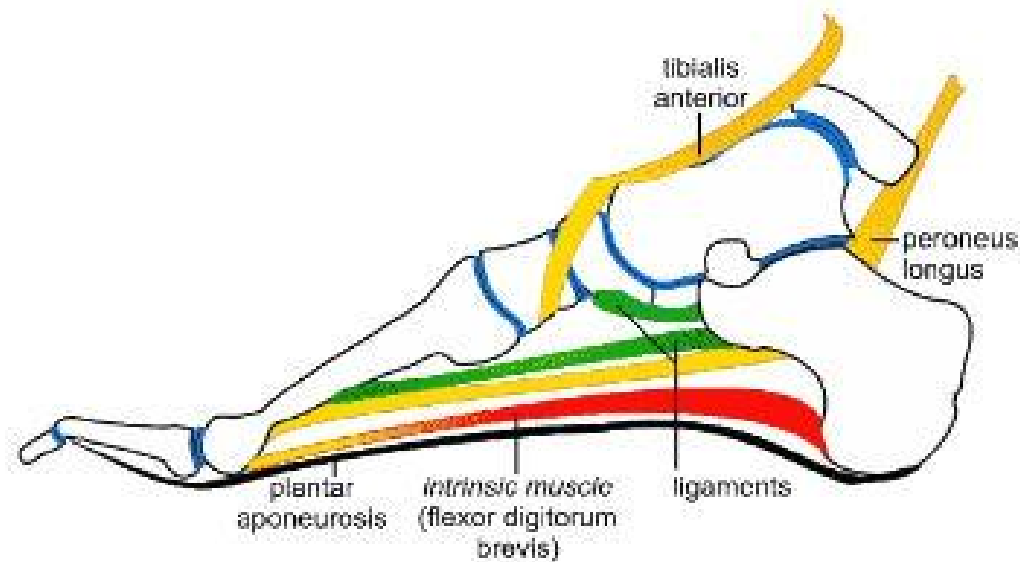


Fig. 10.1 Bones forming arches of foot

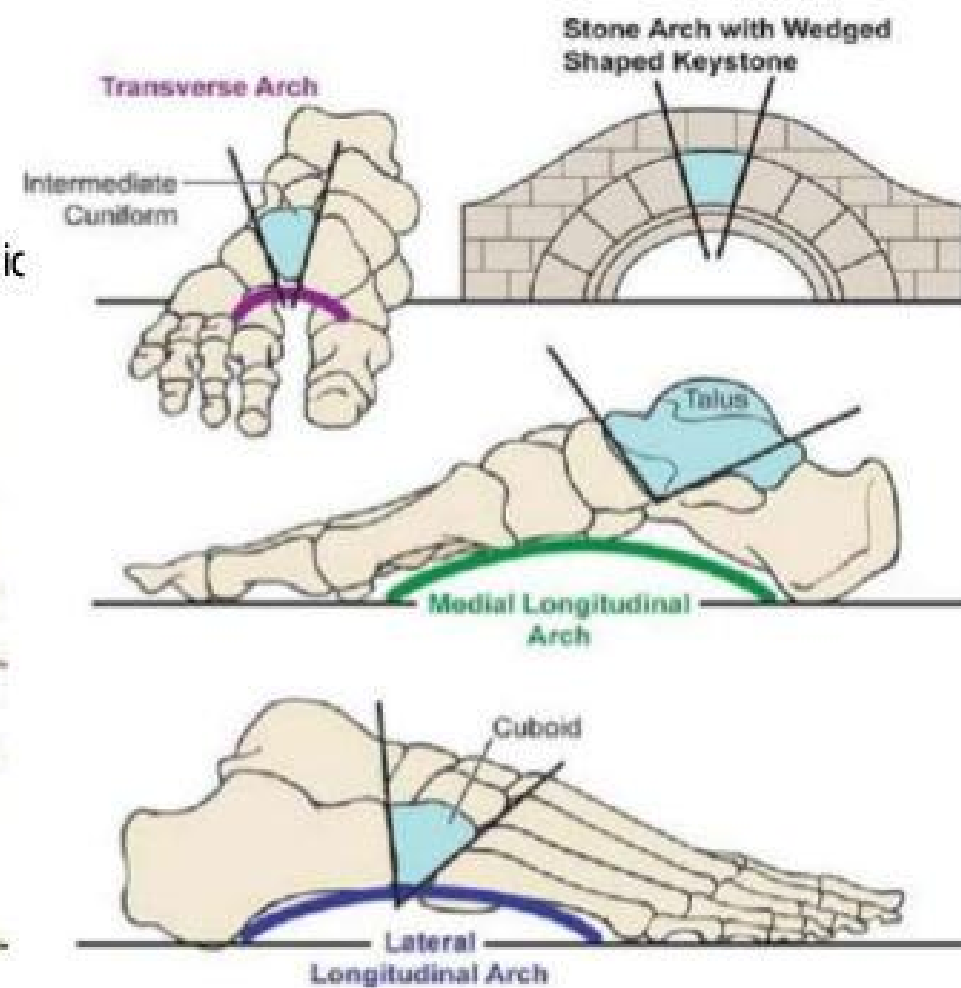
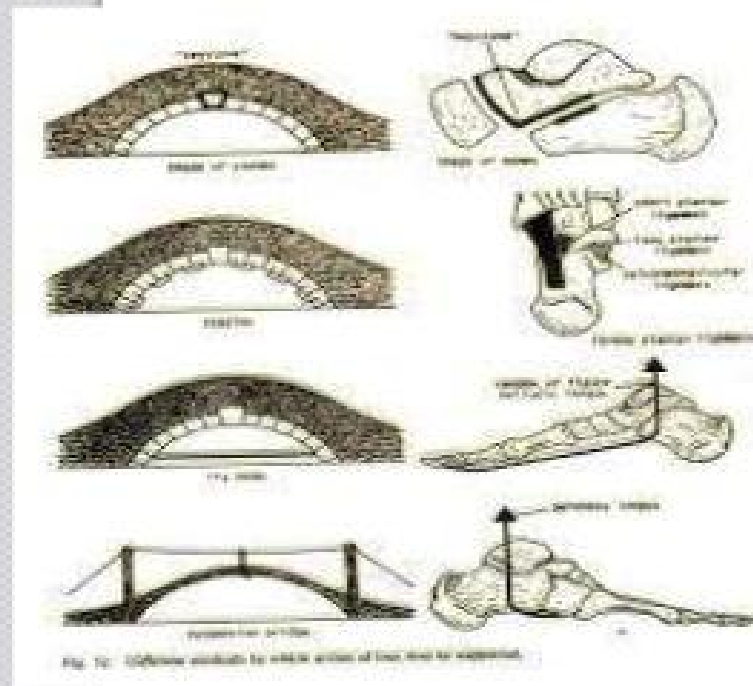
# Factors that maintaining the arch

- |              |                      |
|--------------|----------------------|
| 1. Bones     | } Static stabilizer  |
| 2. Ligaments |                      |
| 3. Muscles   | } Dynamic stabilizer |
| 4. Tendons   |                      |



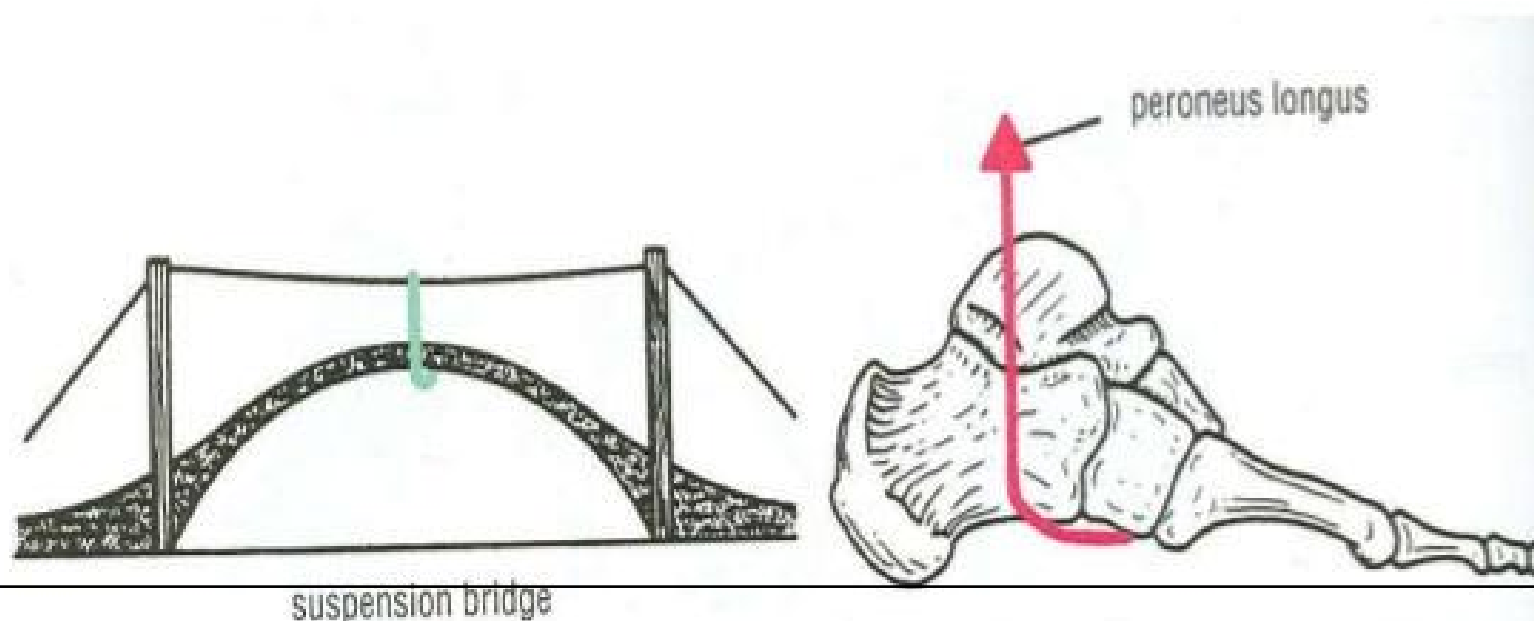
# Method of maintaining the arch

- Shape of stones
- Intersegmental ties
- Tie beams
- Slings or suspension bridge



## MECHANISM OF ARCH SUPPORT

### SUSPENDING THE ARCH FROM ABOVE

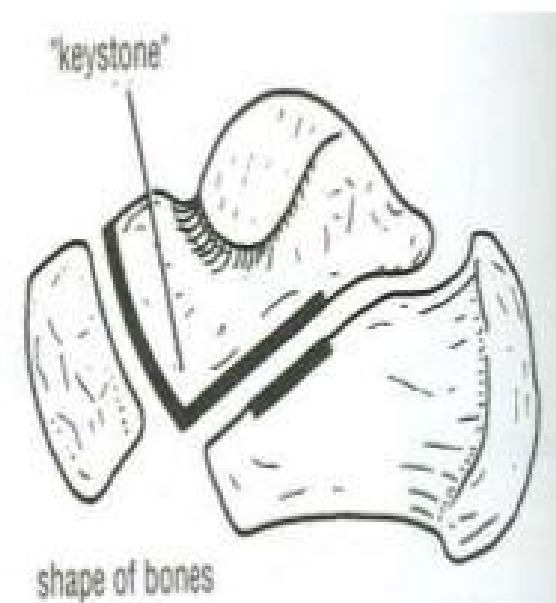
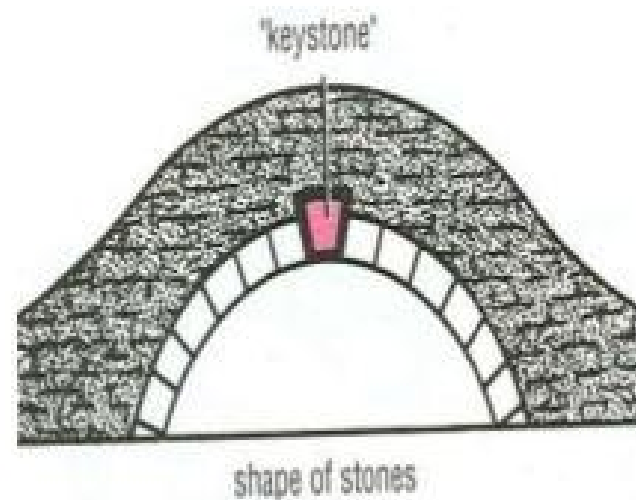


suspension bridge

# MECHANISM OF ARCH SUPPORT

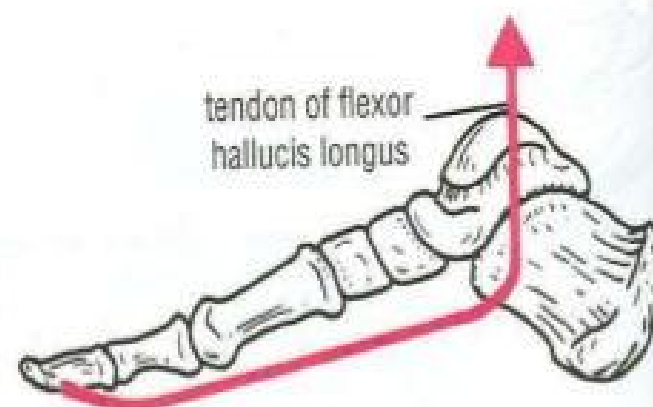
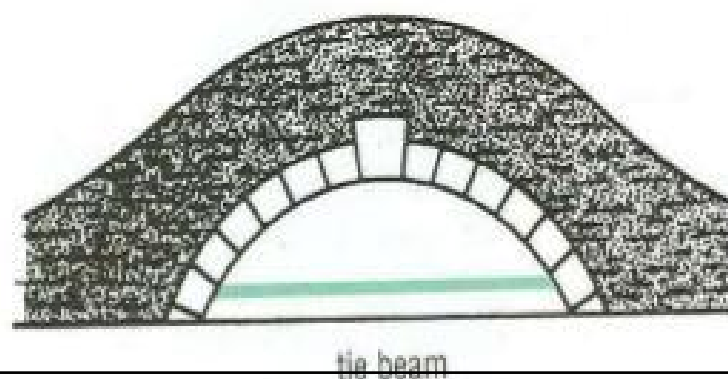
## SHAPE OF BONES

- Bones are wedge-shaped with the thin edge lying inferiorly
- This applies particularly to the bone occupying the center of the arch  
**"keystone"**



# MECHANISM OF ARCH SUPPORT

## TYING THE ENDS OF THE ARCH TOGETHER



# Deformities of Foot

**Hallux Valgus**



**Hammer Toe**



## Pes Planus

**Left Foot  
- Lateral View -**



**Normal Foot and Arch**



**Flat Foot - Flattened Arch**



# Pes Cavus/High Arch Foot



# Club Foot / Talipes



## MCQs

Q. A patient during her visit to orthopaedician was diagnosed to have hammer toes. Which of the following set of deformities are best explanation of this condition?

- a. Flexion at MP, extension at PIP and flexion at DIP joints
- b. Extension at MP, extension at PIP and flexion at DIP joints
- c. Extension at MP, flexion at PIP and extension at DIP joints
- d. Flexion at MP, flexion at DIP joints and extension at PIP

Q.A patient visiting to orthopaedics OPD, for pain in foot during his long walk, is diagnosed to have flat foot. Which of the following structure is least likely to be involved?

- a. Plantar ligaments
- b. Plantar aponeurosis
- c. Calcaneonavicular ligament
- d. Dorsal talocalcaneal interosseous ligament