

Lower Extremity

**David S. Hartman, M.D.
Department of Radiology**

Goals

1. To teach *clinically relevant* gross anatomy
2. To make it easier to understand gross anatomy
3. To introduce a clinical lexicon

Organization

- 1. 4 presentations to the entire class**
 - 1. Lower extremity/thorax**
 - 2. Abdomen/pelvis/perineum**
 - 3. Upper extremity/back**
 - 4. Head and neck**
- 2. *Optional* review session before each examination**

Examinations

- 1. 4 radiologic unknowns on each examination**
- 2. Radiographs used for the exams are displayed in the lab**
- 3. Each examination unknown is labeled in PowerPoint**

Learning Objectives:

**Identify all objects indicated by arrows
on the radiological images in this
presentation**

**The same images are on the
viewboxes in the lab**

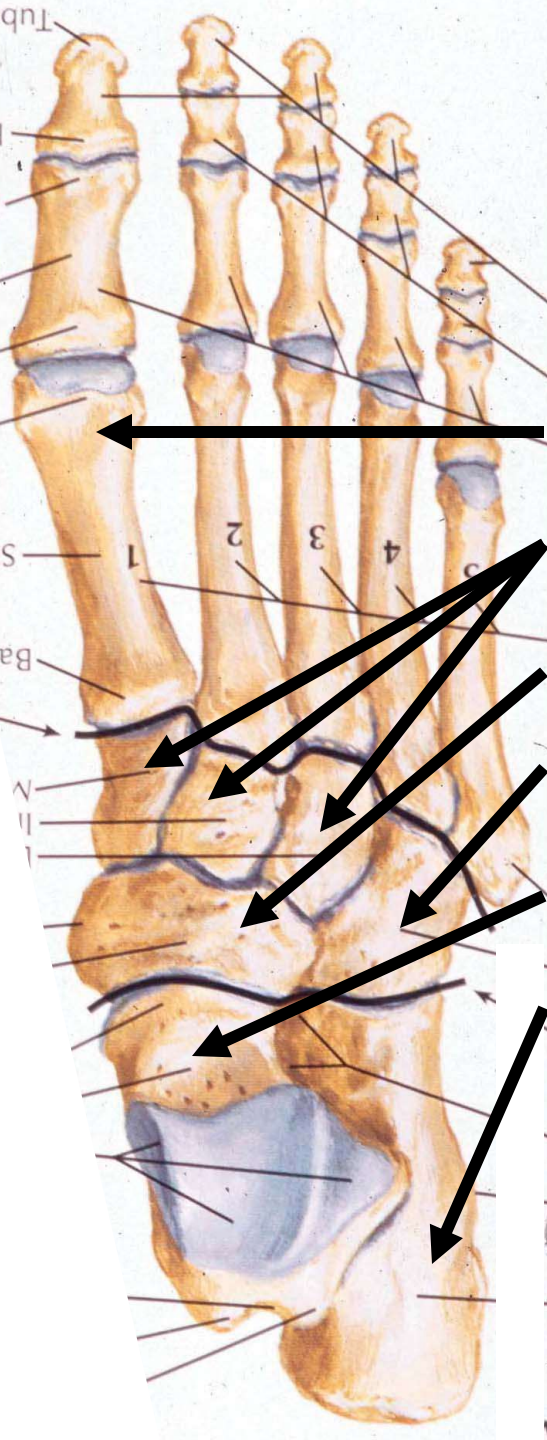
PLEASE

**Do not touch films
with gloves, pens, sharp
instruments, etc.**

Radiographic

Anatomy Of

The Foot



Frontal foot

Metatarsals

Cuneiforms

Navicular

Cuboid

Talus

Calcaneus

AP Foot

Metatarsals

Medial Cuneiform

Intermediate Cuneiform

Cuboid

Navicular

Talus



Oblique Foot

Metatarsals

Lateral Cuneiform

Cuboid

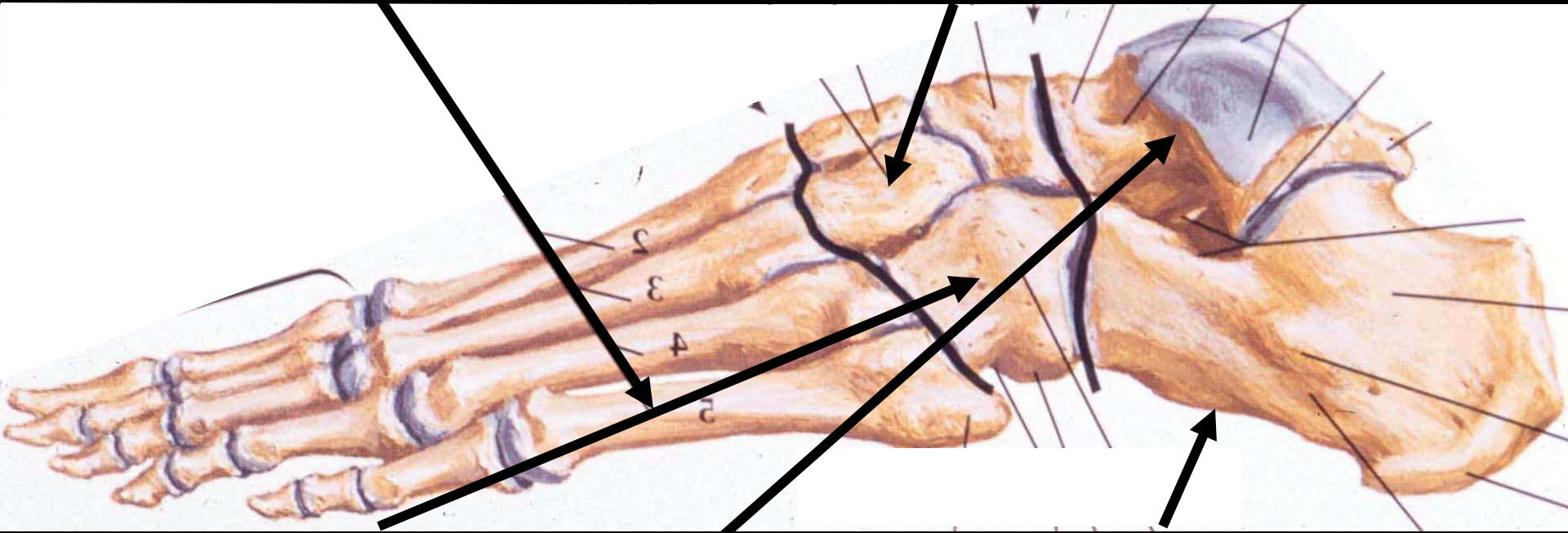
Navicular

Talus



Metatarsals

**Lateral
cuneiform**

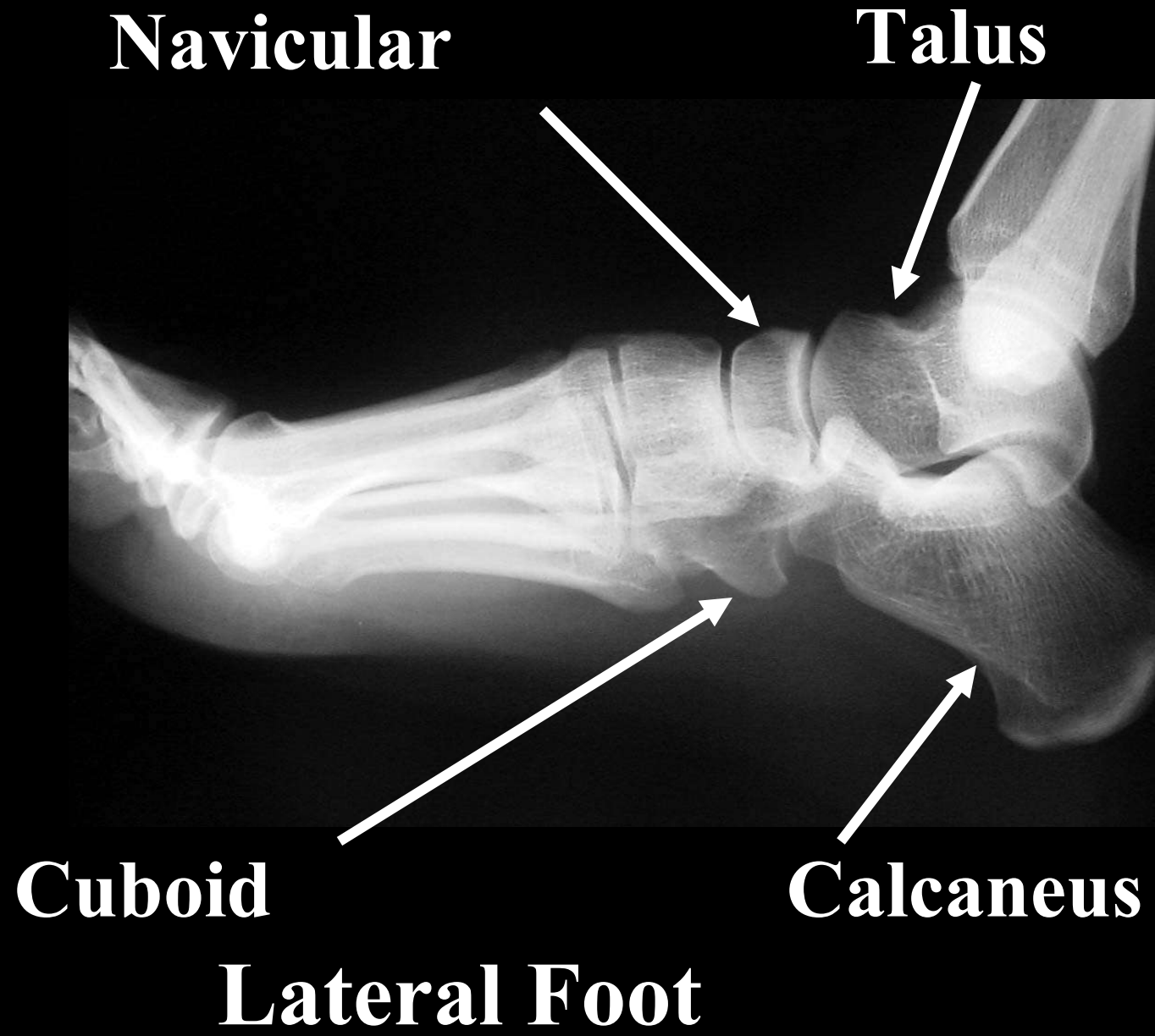


Cuboid

Talus

Calcaneus

Lateral Foot



Navicular

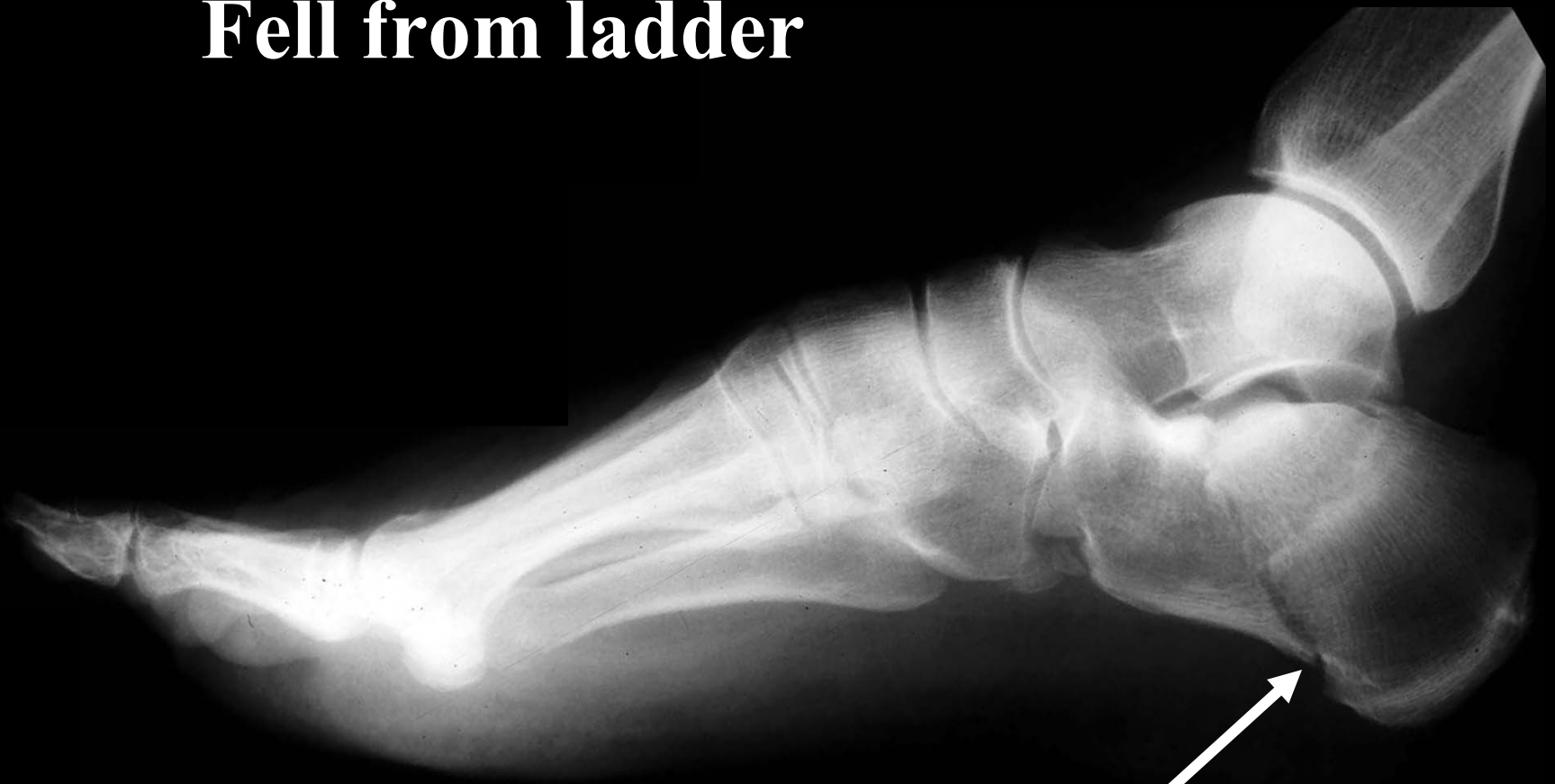
Talus

Cuboid

Calcaneus

Lateral Foot

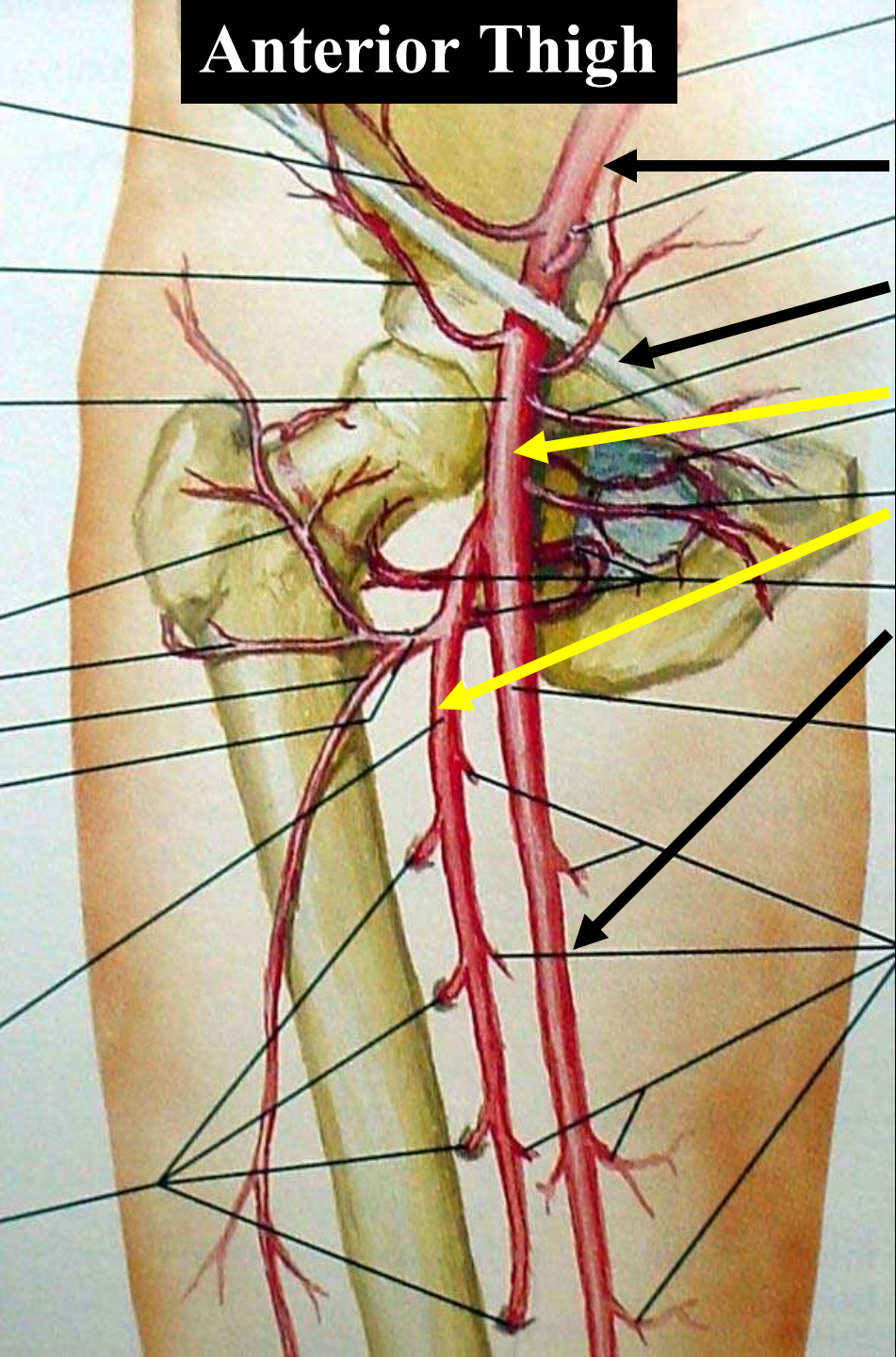
Fell from ladder



Fracture calcaneus

**Angiographic
Anatomy of the
Lower Extremity**

Anterior Thigh



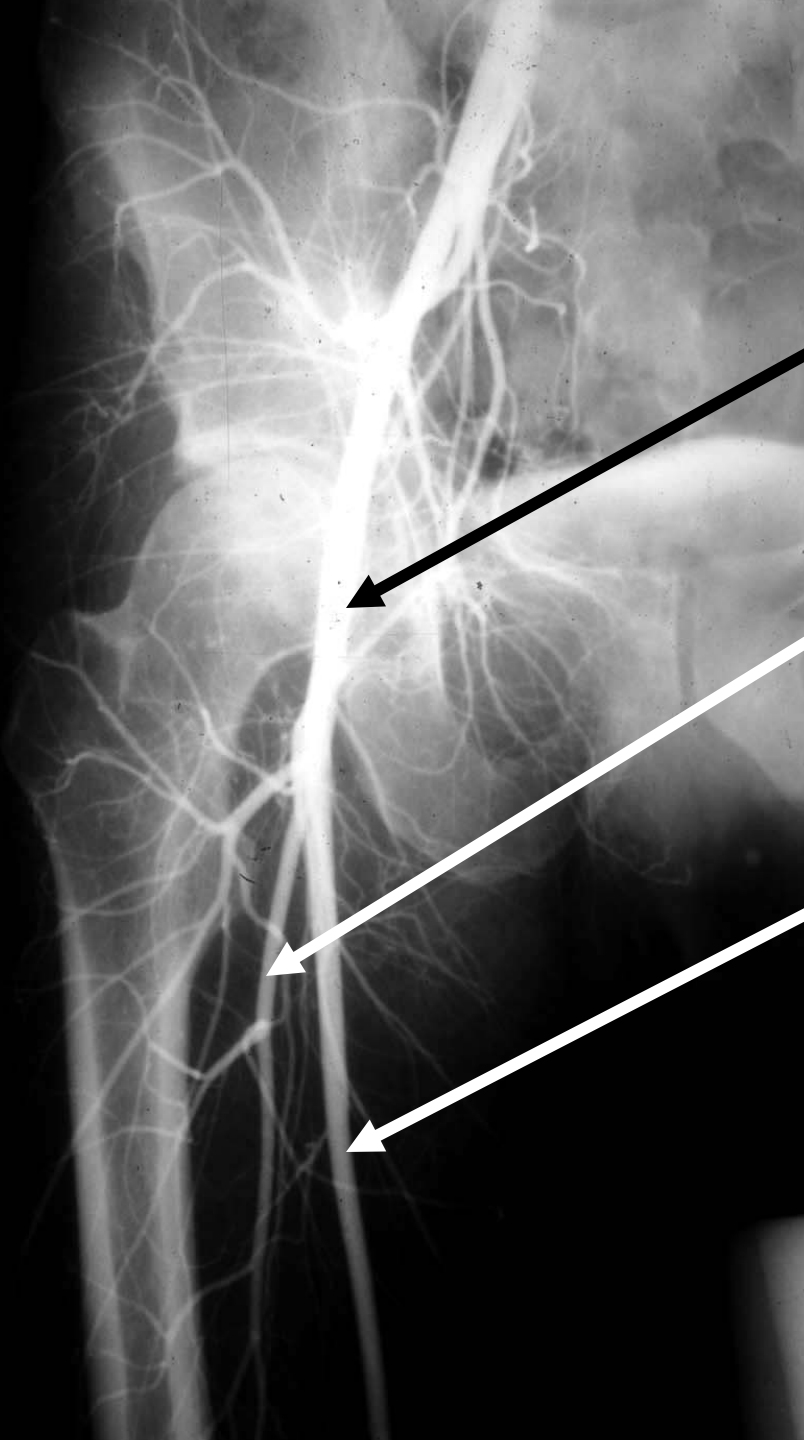
External iliac artery

Inguinal ligament

Common femoral artery

Profunda femoris artery

Superficial femoral artery



Common femoral art

Profunda femoris art

Superficial femoral art

Posterior Knee



Popliteal artery

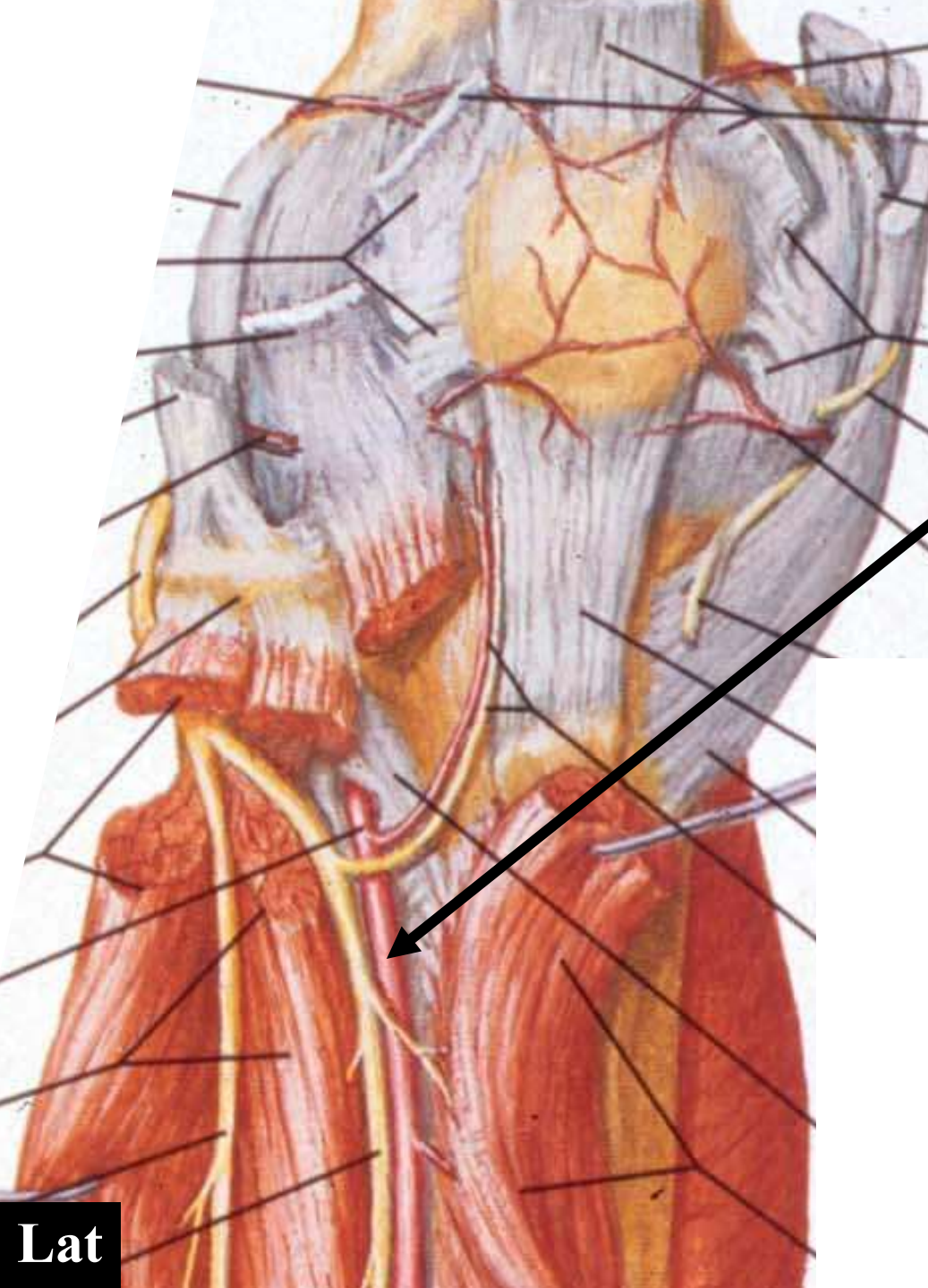
Anterior tibial artery

Peroneal artery

Posterior tibial art

LAT

MEDIAL



Anterior Knee

Anterior tibial
artery

Lat

MEDIAL

485

AP Knee

Superficial femoral artery

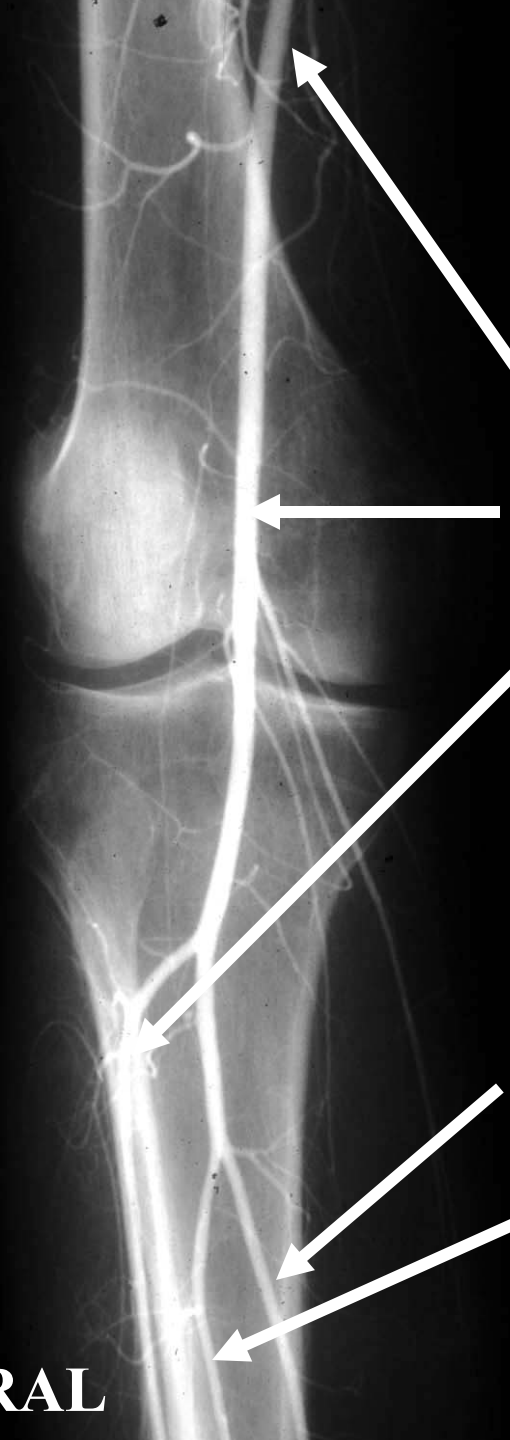
Popliteal artery

Anterior tibial artery

Posterior tibial artery

Peroneal artery

LATERAL

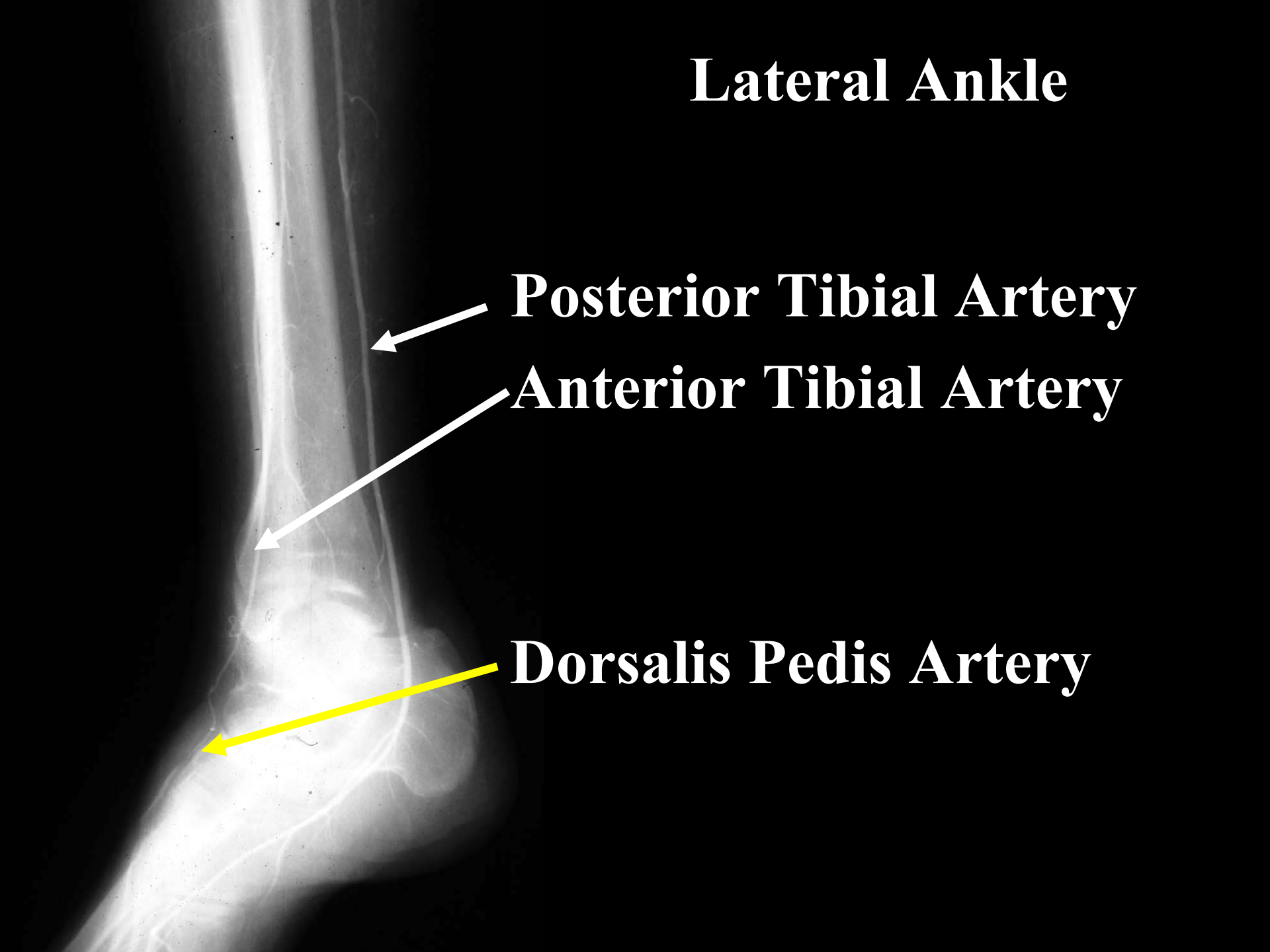


Lateral Ankle

Posterior Tibial Artery

Anterior Tibial Artery

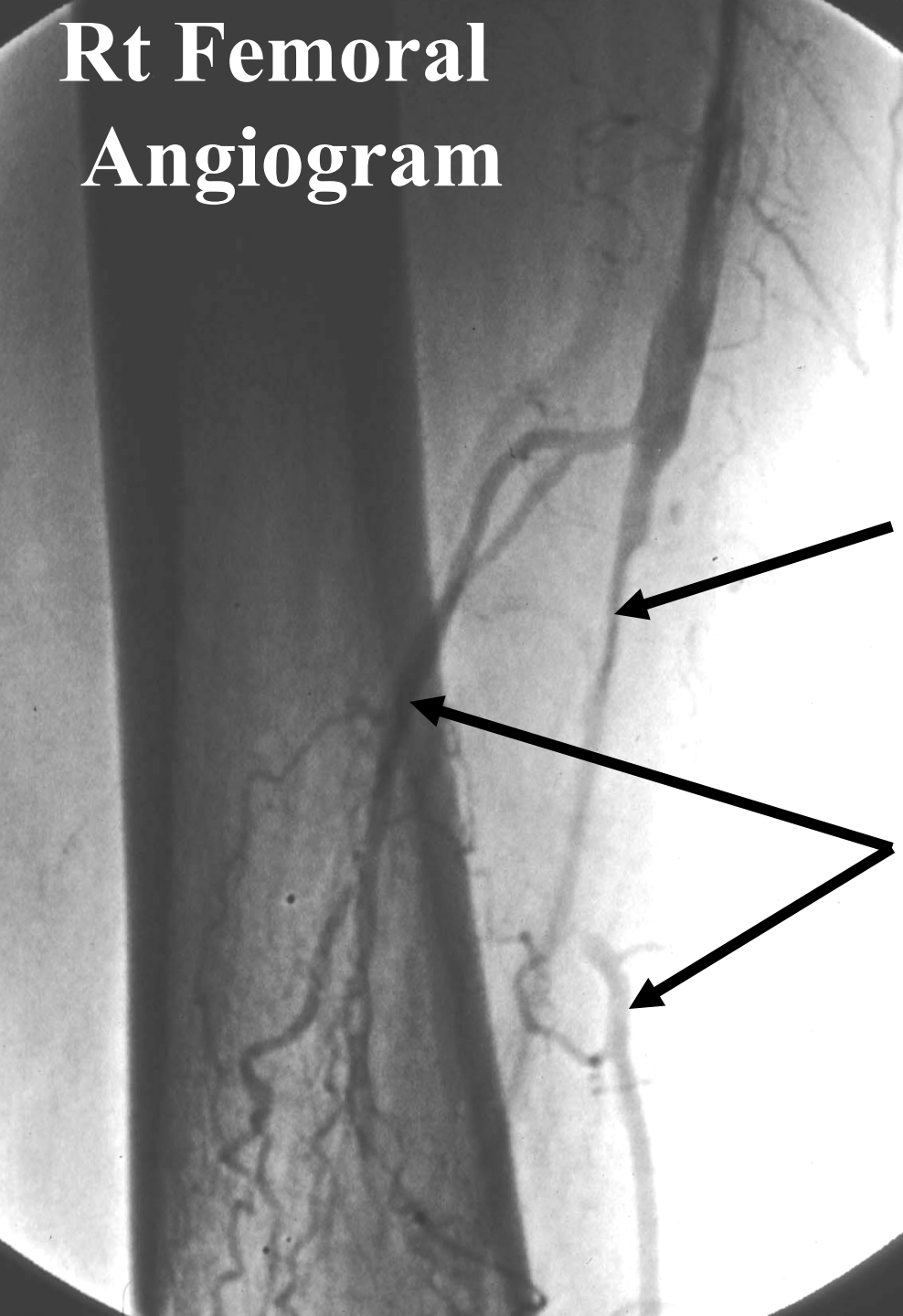
Dorsalis Pedis Artery



**Rt Femoral
Angiogram**

**66YO smoker,
claudication**

**Marked narrowing of
the SFA with
extensive collaterals
which will
reconstitute the
popliteal a**



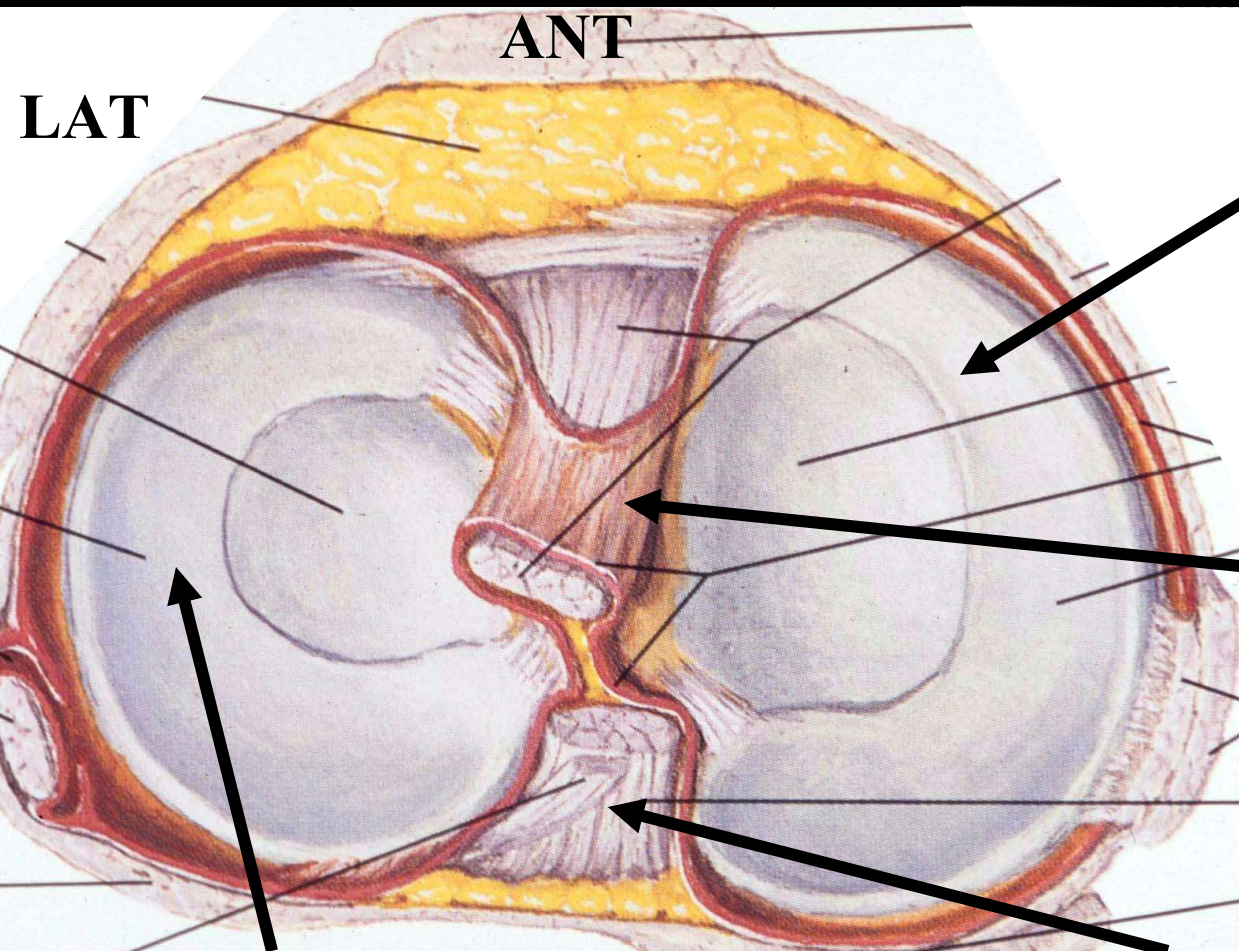


**Following
angioplasty**

MIR Anatomy

of the Knee

Left Knee From Above

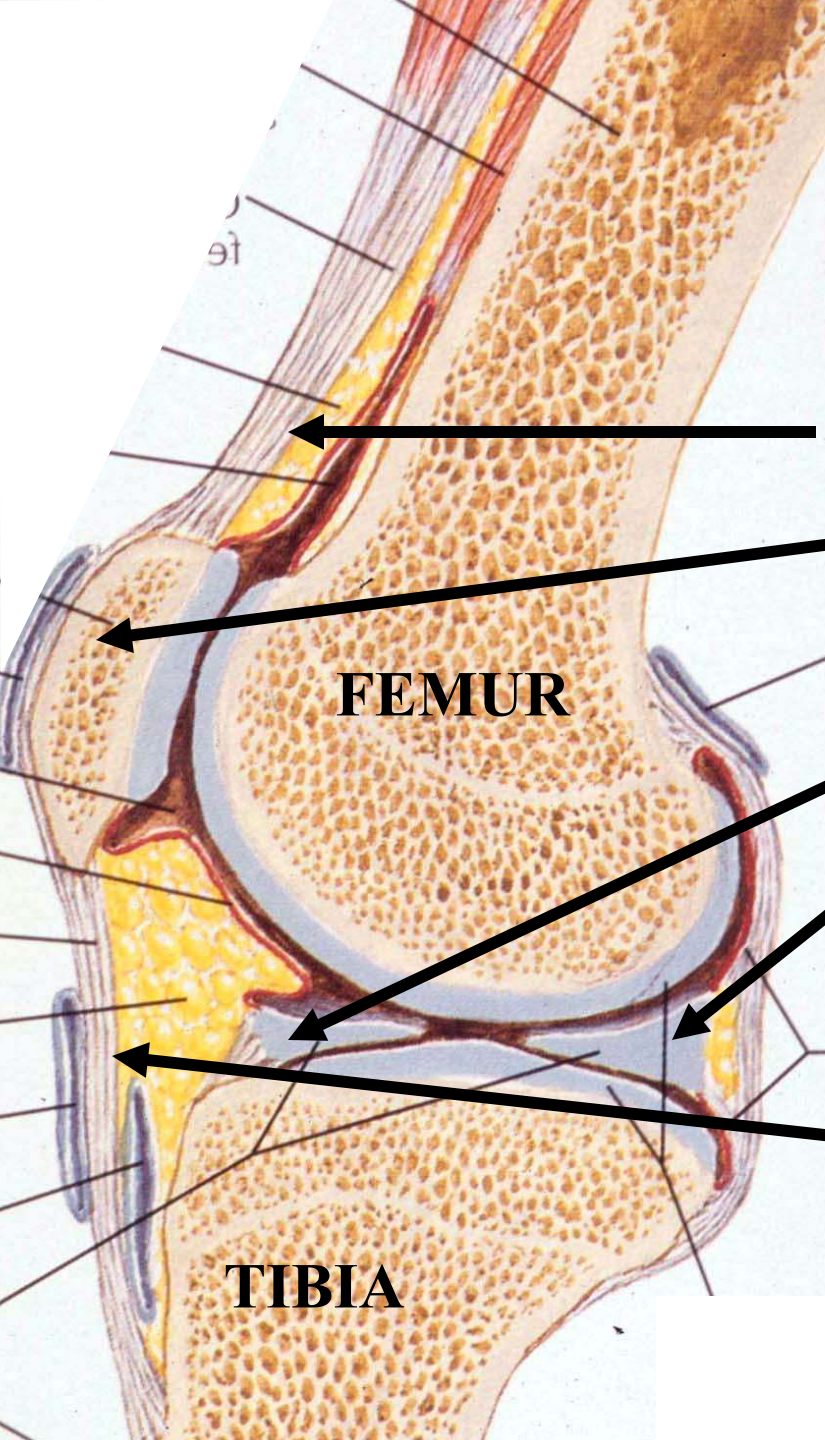


**Medial
Meniscus**

**Anterior
Cruciate**

**Posterior
Cruciate**

**Lateral
Meniscus**



Sagittal knee

Quadriceps tendon

Patella

Meniscus

Anterior horn

Posterior horn

Patella tendon

FEMUR

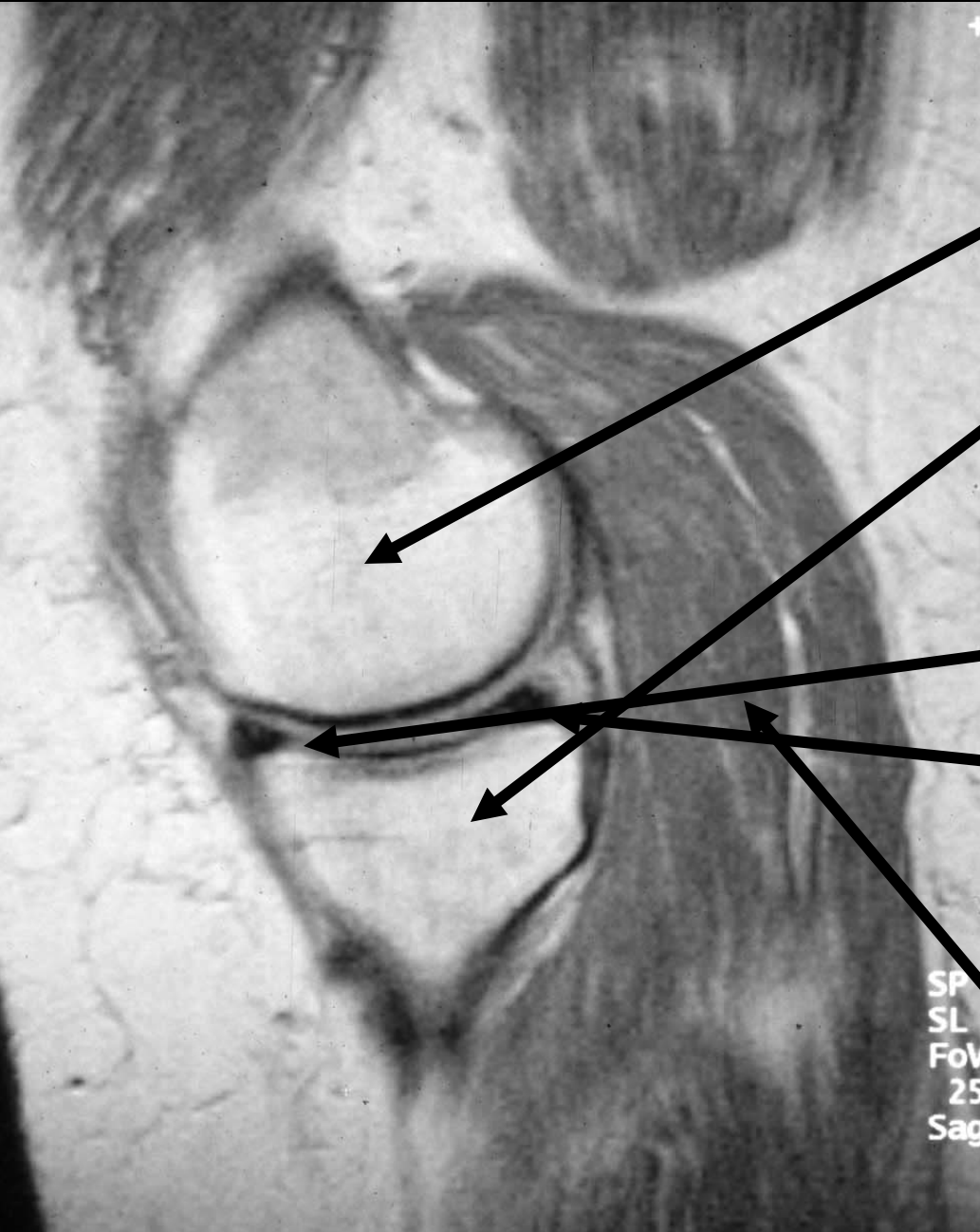
TIBIA

Lateral



Medial

Knee MR, Medial



**Medial femoral
condyle**

Medial condyle of tibia

Medial meniscus

Anterior horn

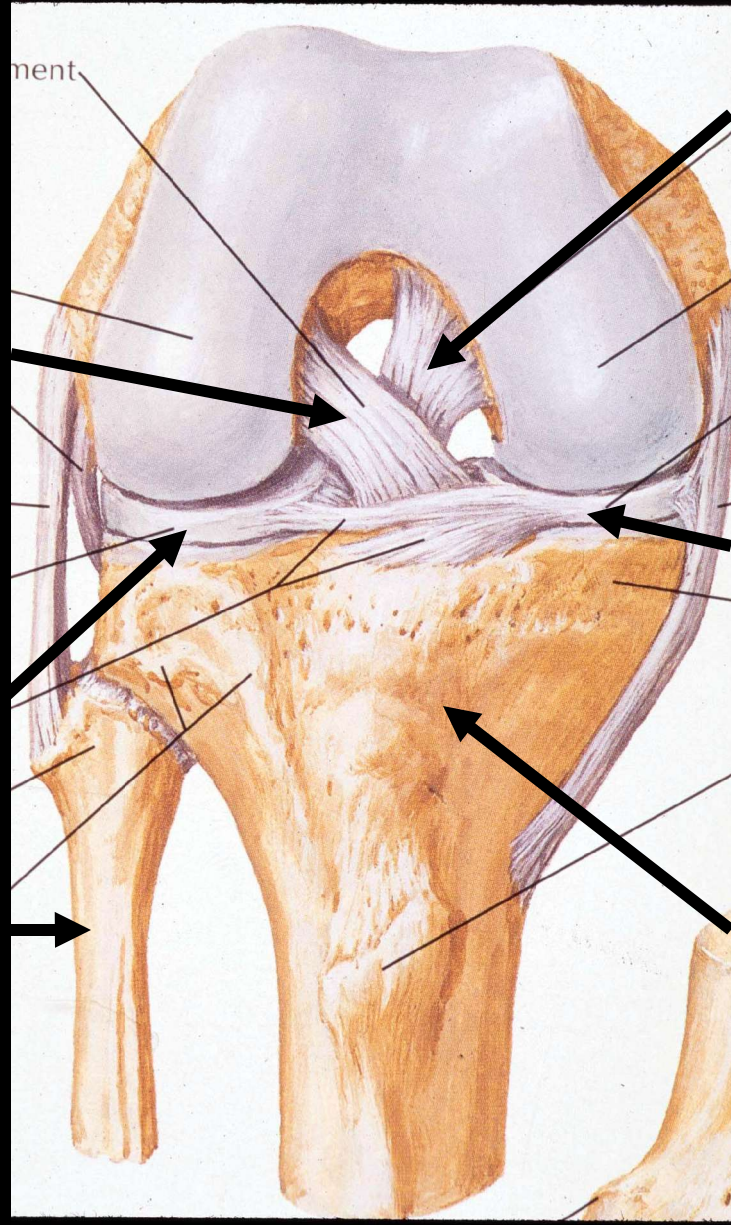
Post horn

Gastrocnemius

**Anterior
cruciate**

**Lateral
meniscus**

Fibula



**Posterior
cruciate**

**Medial
meniscus**

Tibia

Right Knee from the Front

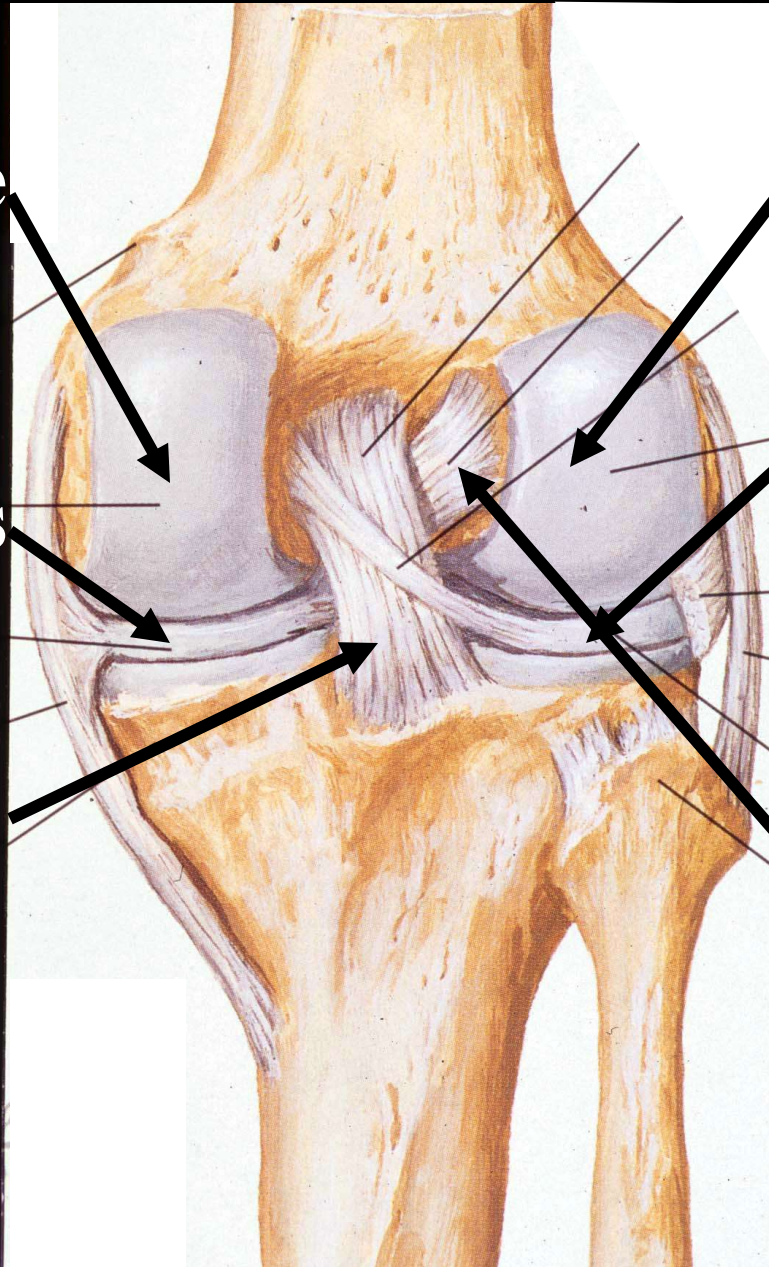
Right Knee, Posterior View

**Medial
condyle**

**Medial
meniscus**

**Posterior
cruciate
ligament**

Medial



**Lateral
condyle**

**Lateral
meniscus**

**Anterior
cruciate
ligament**

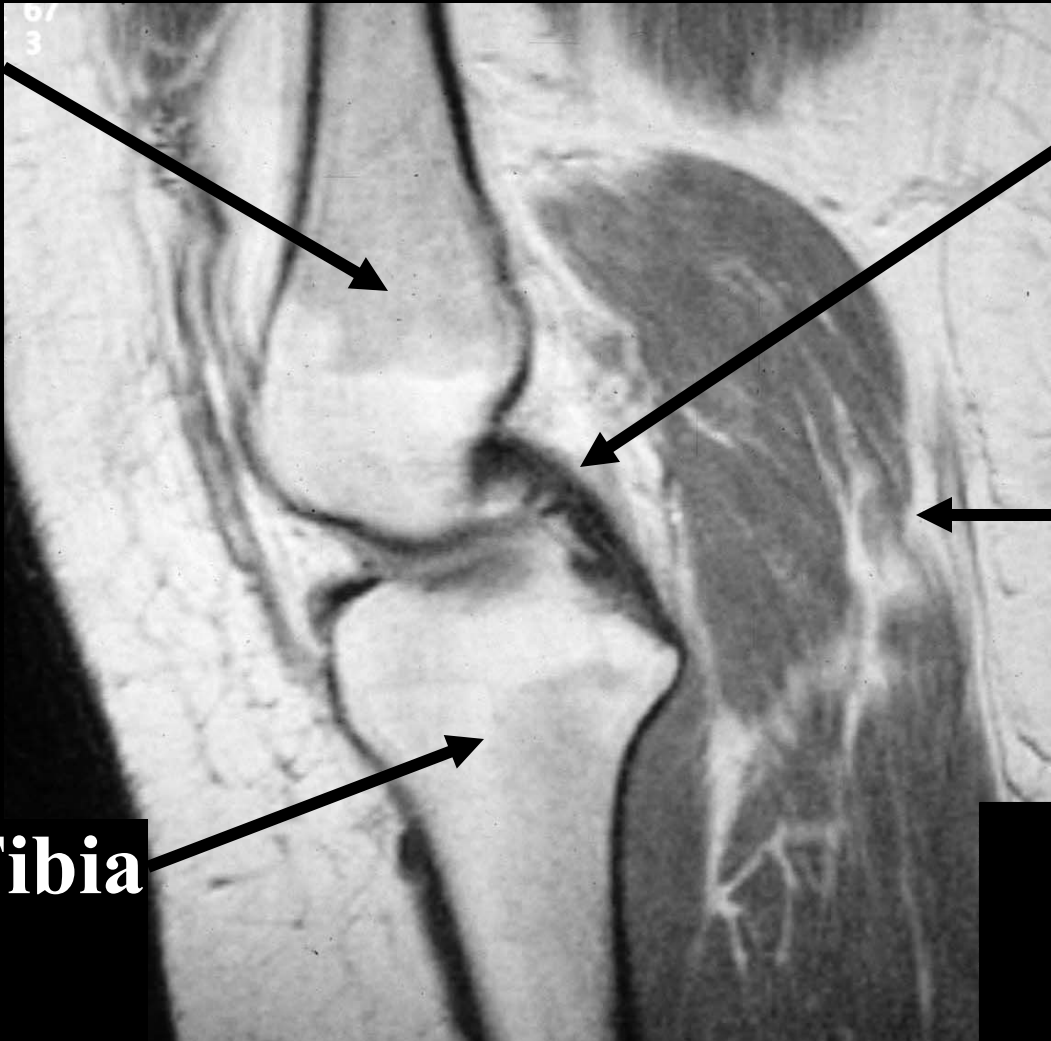
Lateral

LATERAL



MEDIAL

Femur

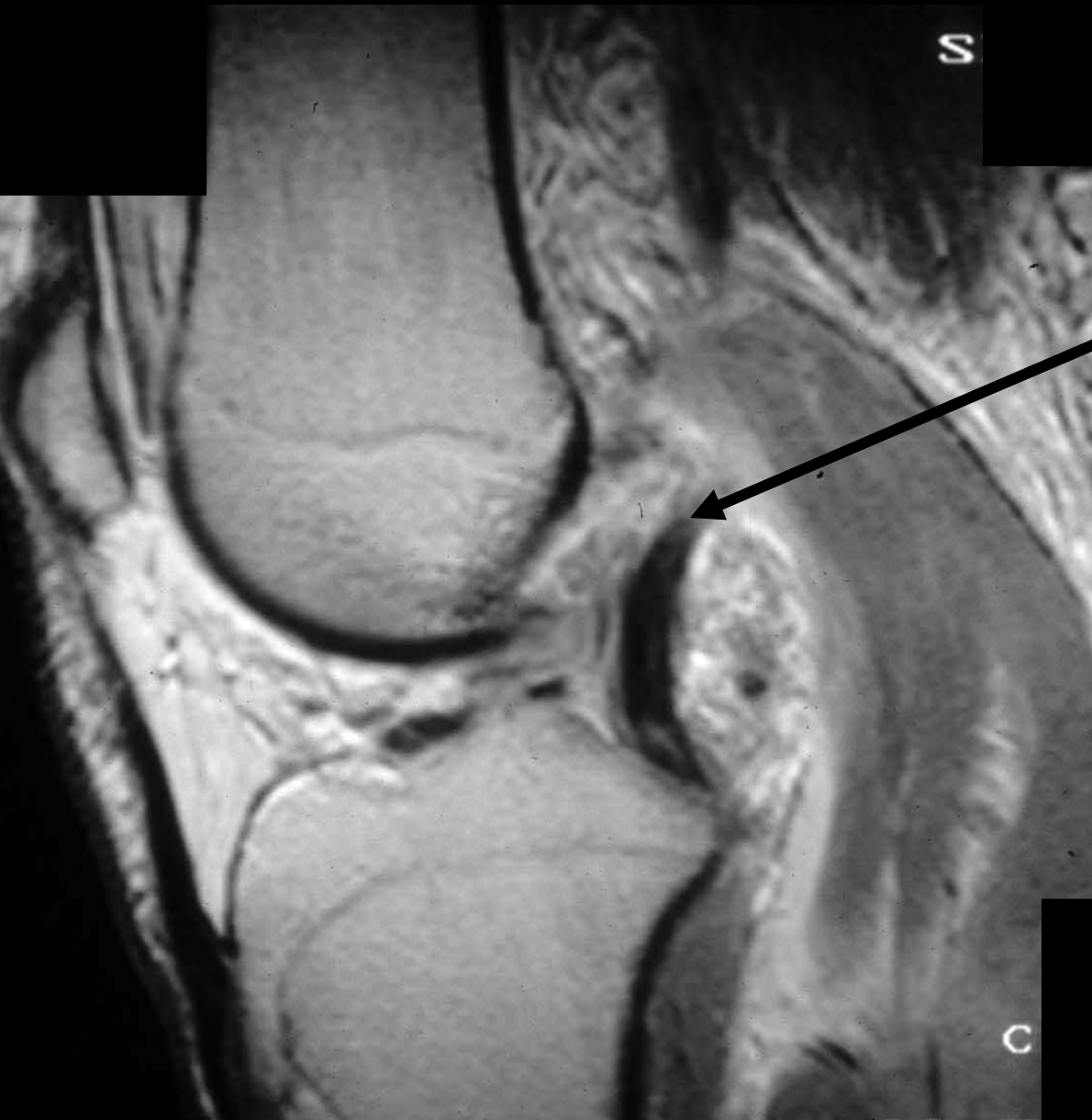


**Posterior
cruciate**

**Gastroc-
nemius
muscle**

Tibia

32 YO man, knee pain



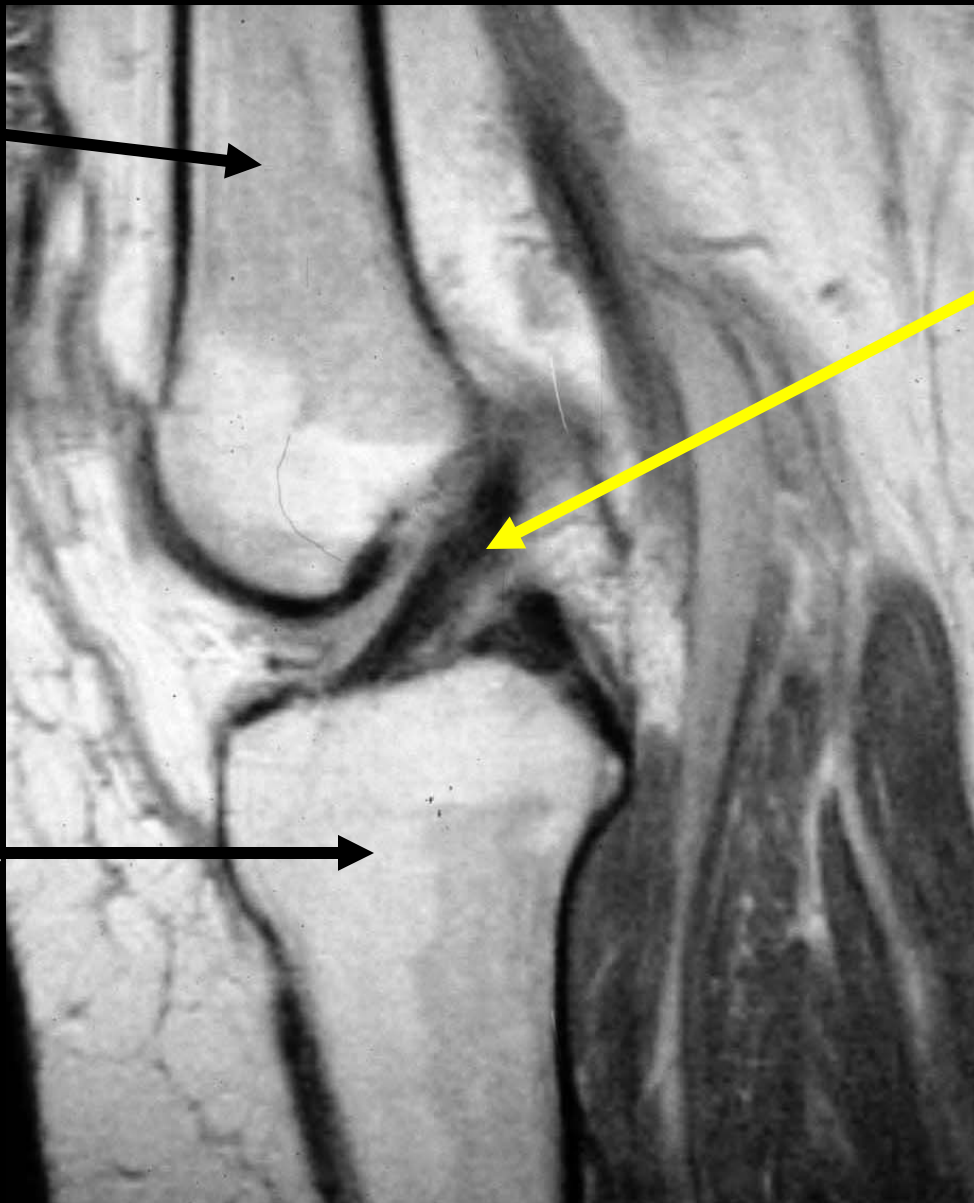
**Ruptured
posterior cruciate
ligament**

LATERAL



MEDIAL

Femur



**Anterior
cruciate
ligament**

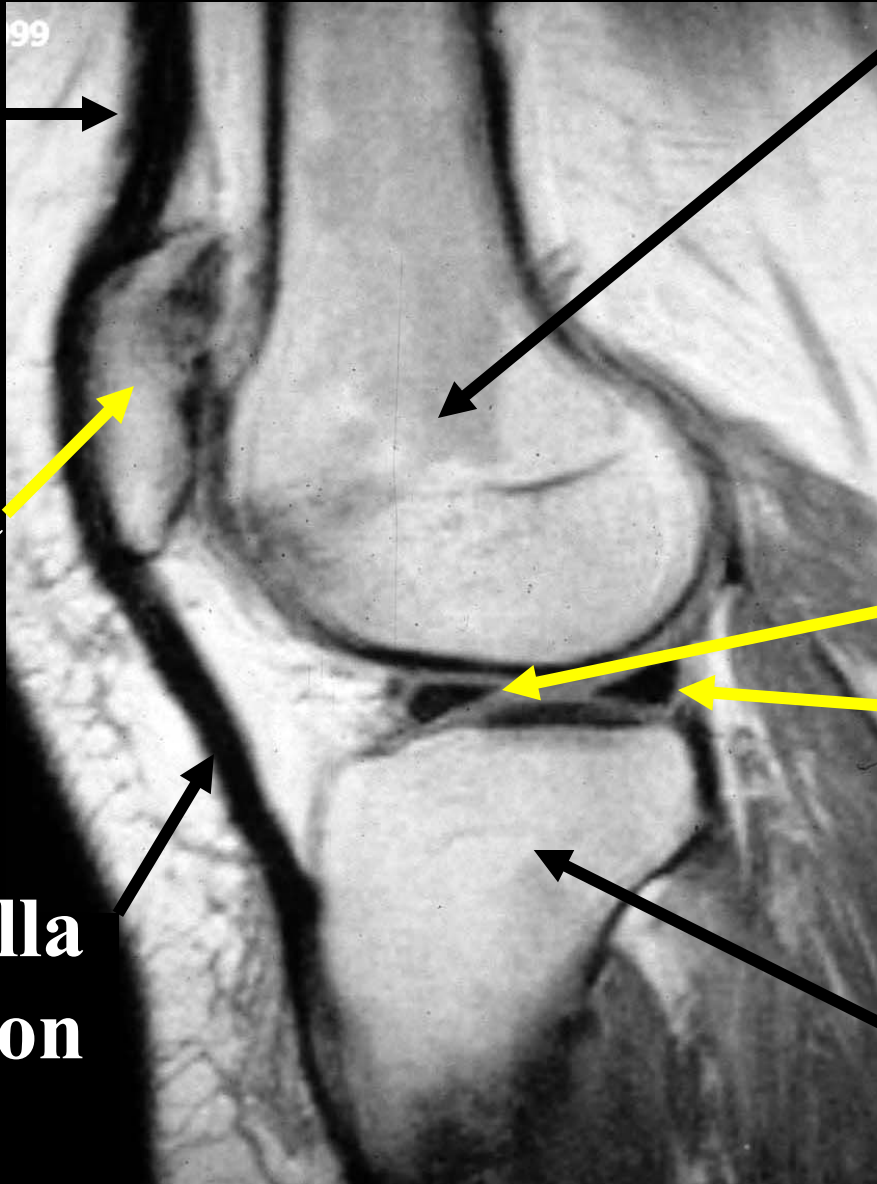
Tibia

LATERAL



MEDIAL

**Quad-
riceps
tendon**



**Lateral
femoral
condyle**

**Lateral
meniscus**

**Ant horn
Post horn**

**Lateral
condyle
of the tibia**

Patella

**Patella
tendon**

Lower Extremity

David S. Hartman, M.D.
Department of Radiology