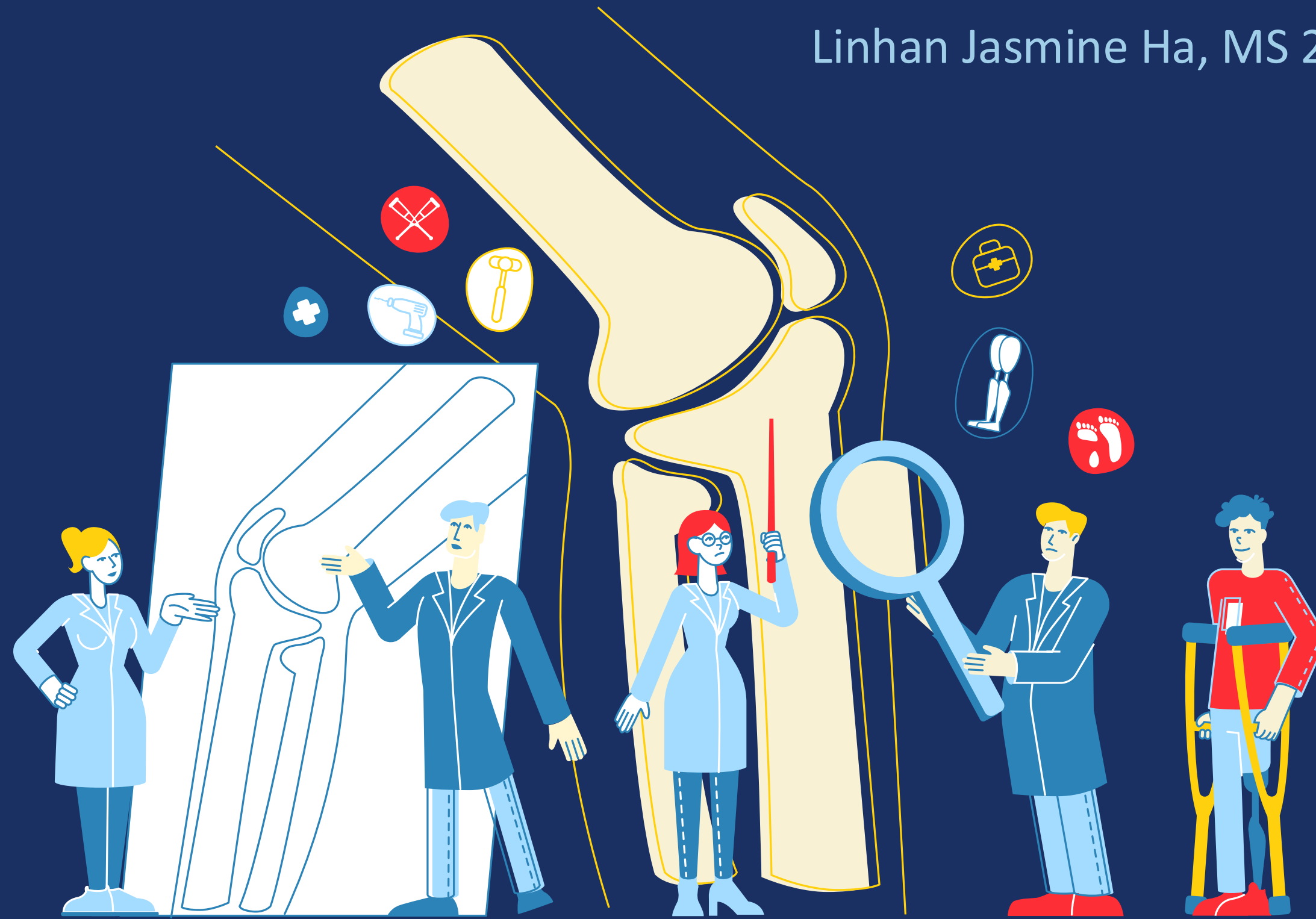


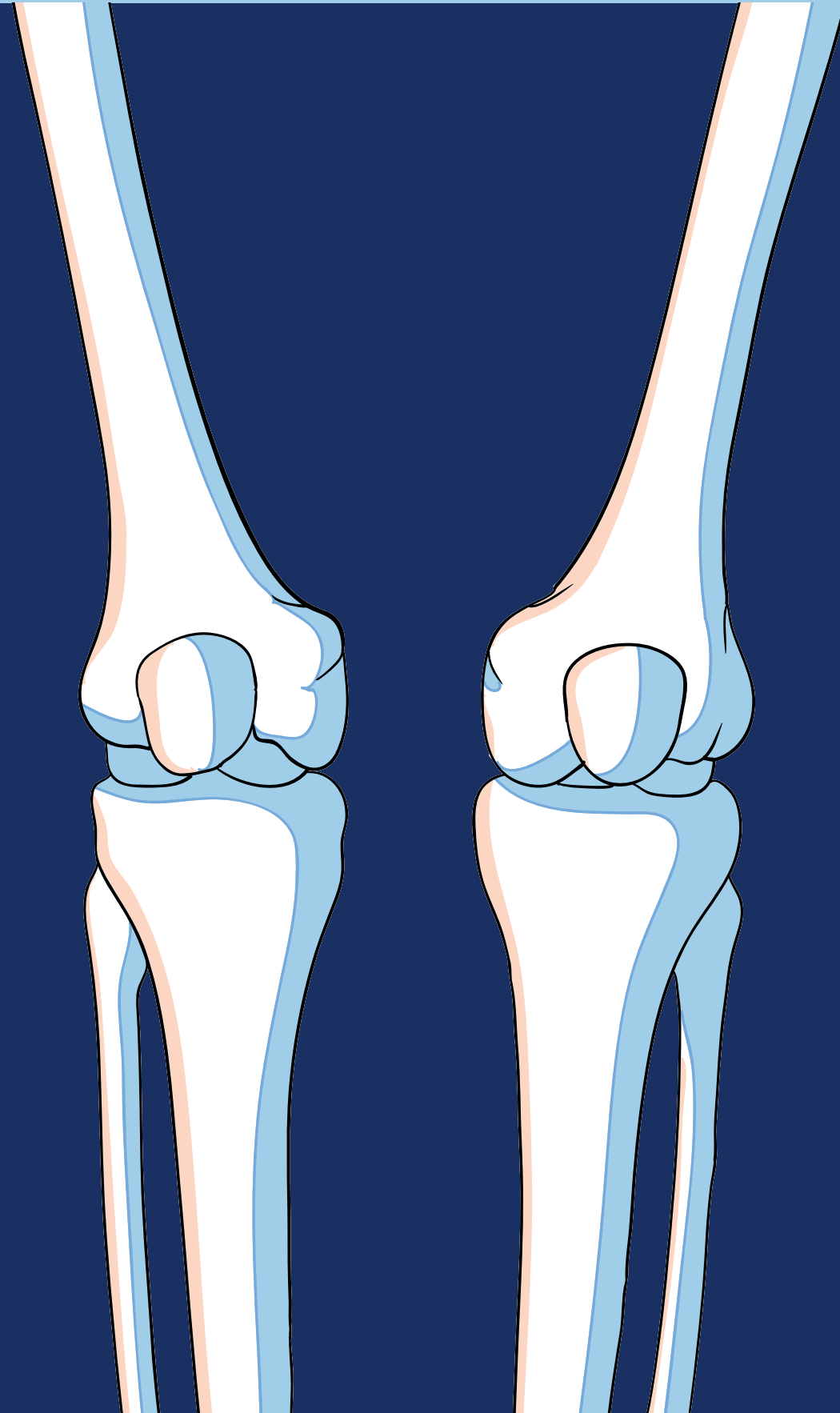
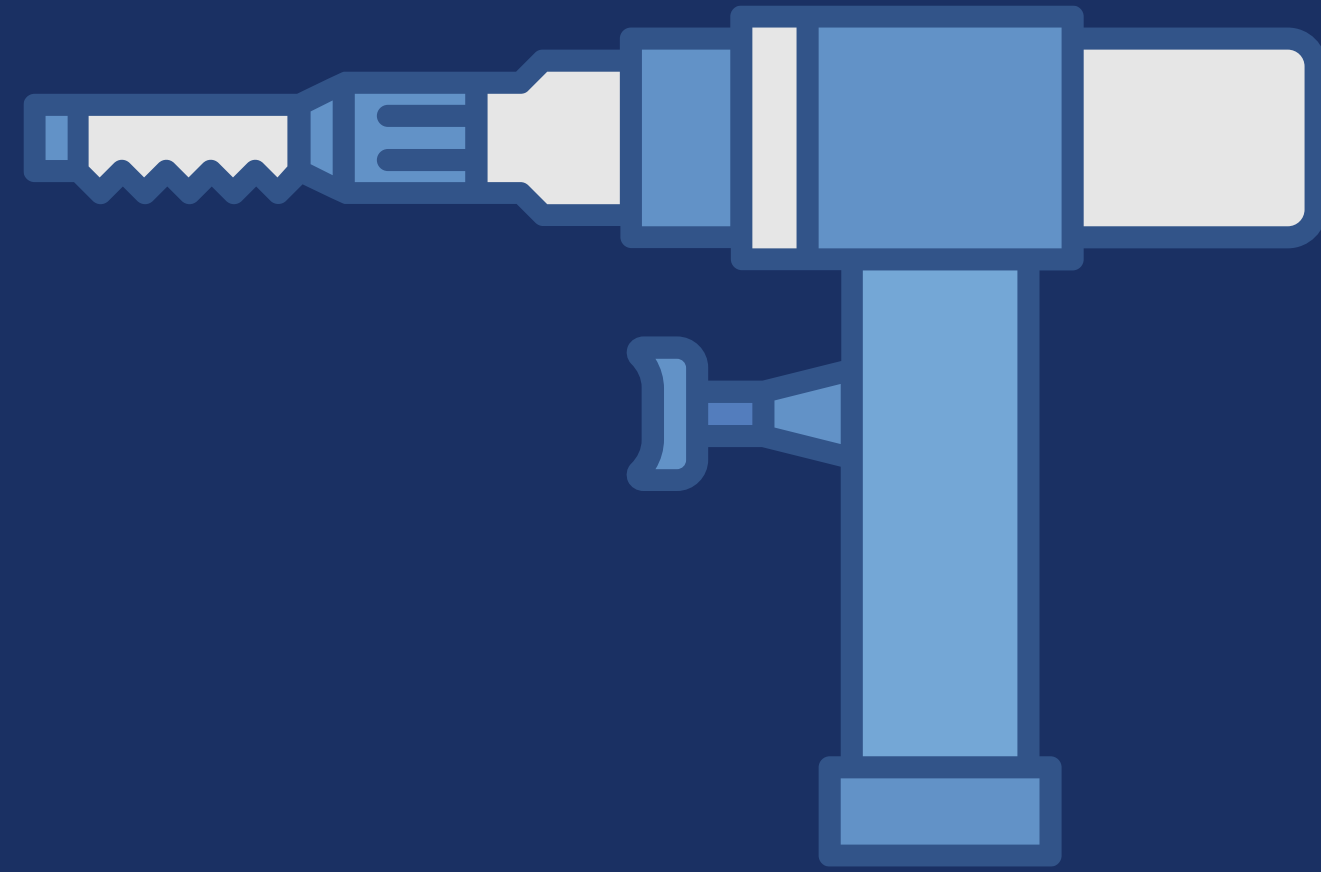
07/12/2024 ,EMORY ORTHO SSIP PRESENTATION

PROXIMAL TIBIAL REPLACEMENT

Linhan Jasmine Ha, MS 2



AGENDA



1. INTRODUCTION
2. CASE PRESENTAION
3. SURGICAL PROCEDURE
4. ACKNOWLEDGMENTS
5. QUESTIONS

INTRODUCTION



USA FREDERICK P. WHIDDON
COLLEGE OF MEDICINE
UNIVERSITY OF SOUTH ALABAMA

CASE HISTORY

- 15 y/o M with a PMH of Autism Spectrum Disorder presents to the clinic in March 2024 because his family noticed he was wrapping his L leg. They stated he indicated he fell off his bike, but came into the clinic concerned because even after a few weeks he was wrapping ● leg. No Significant MHx.





Initial Xrays

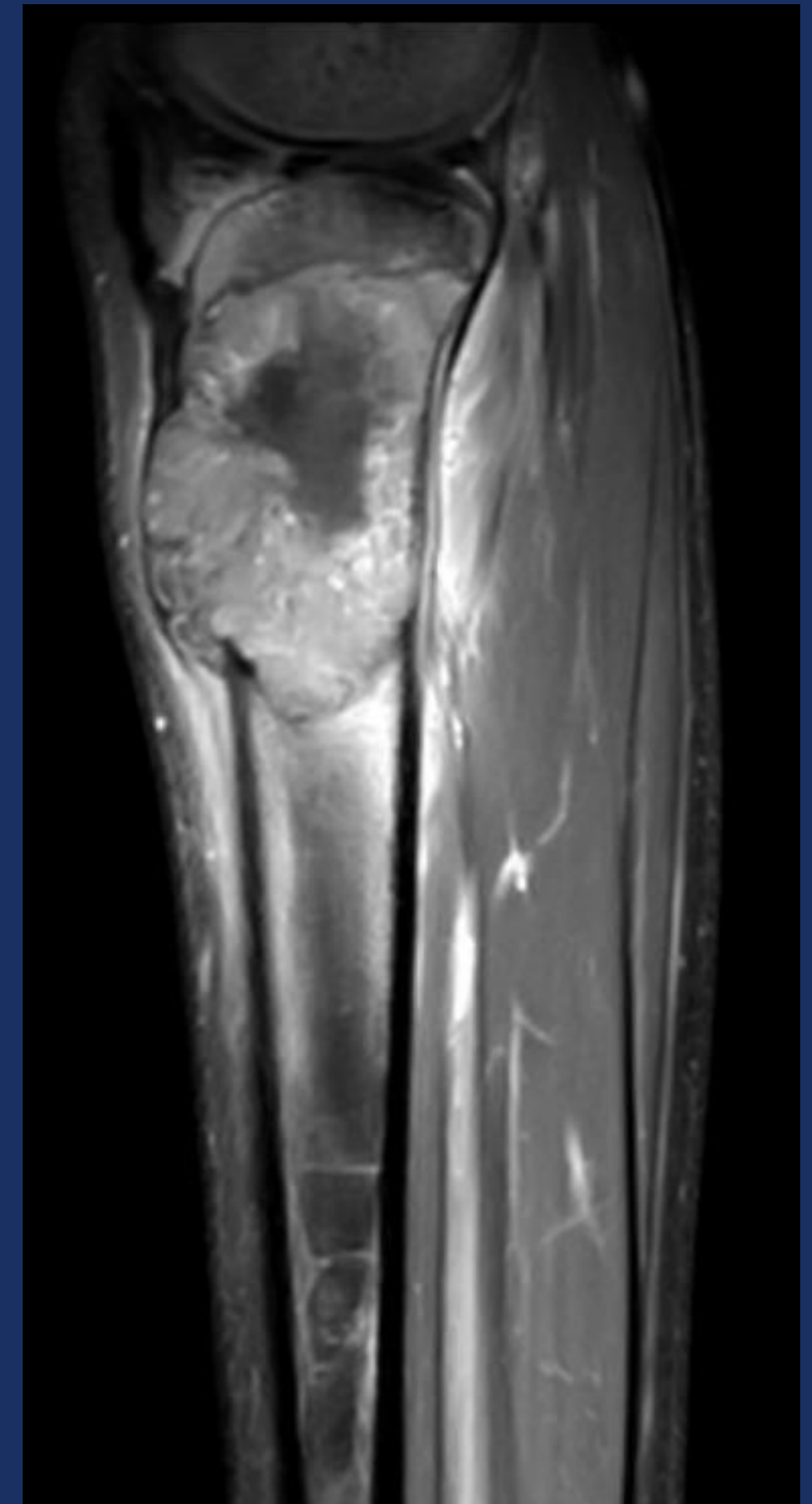


March 2024

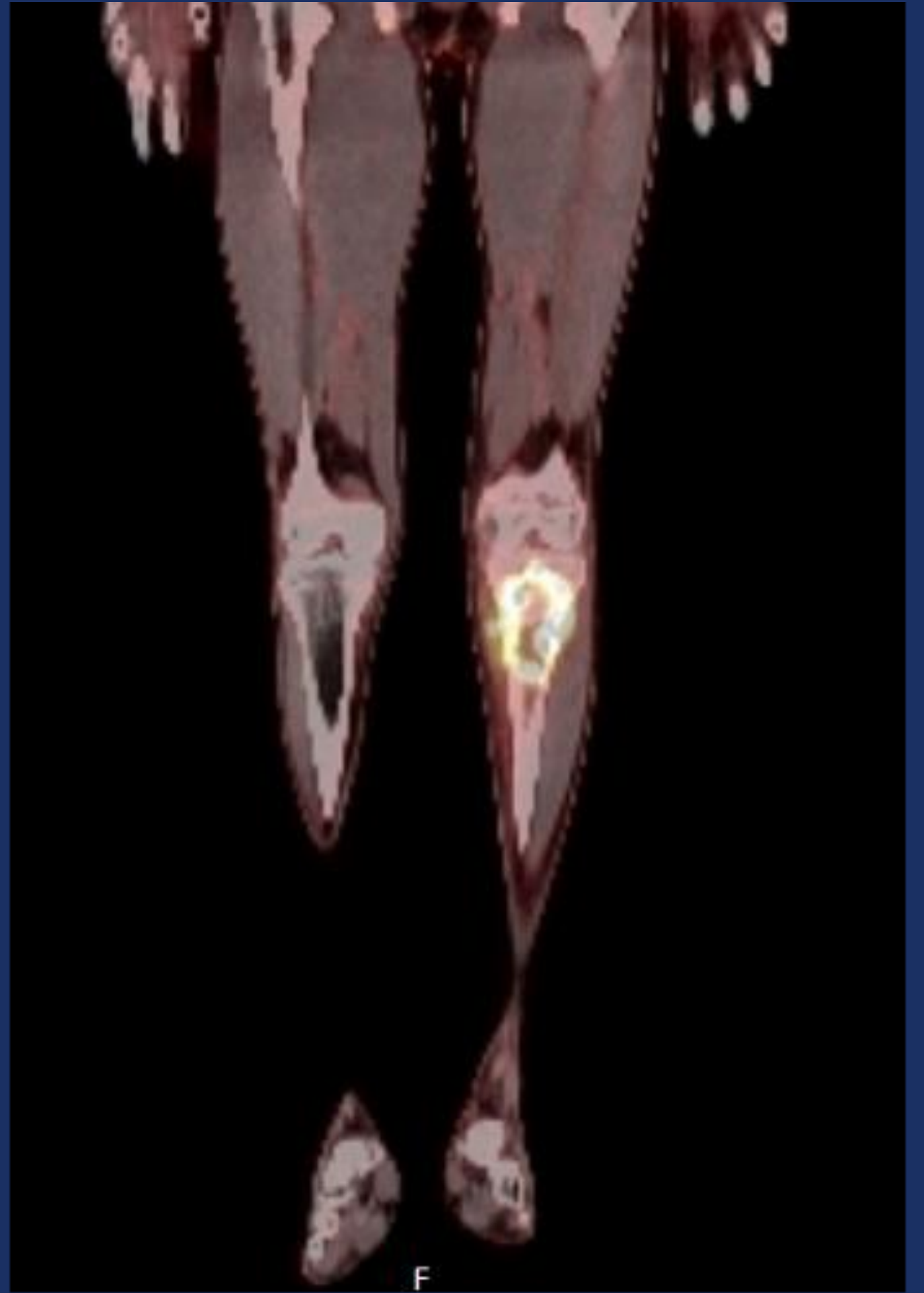
Stat MRI

Stage	Grade	Size	Metastasis
I-A	Low	<8 cm	None
I-B	Low	>8 cm	None
II-A	High	<8 cm	None
II-B	High	>8 cm	None
III	Any	Any	Skip metastasis
IV-A	Any	Any	Pulmonary metastasis
IV-B	Any	Any	Nonpulmonary metastasis

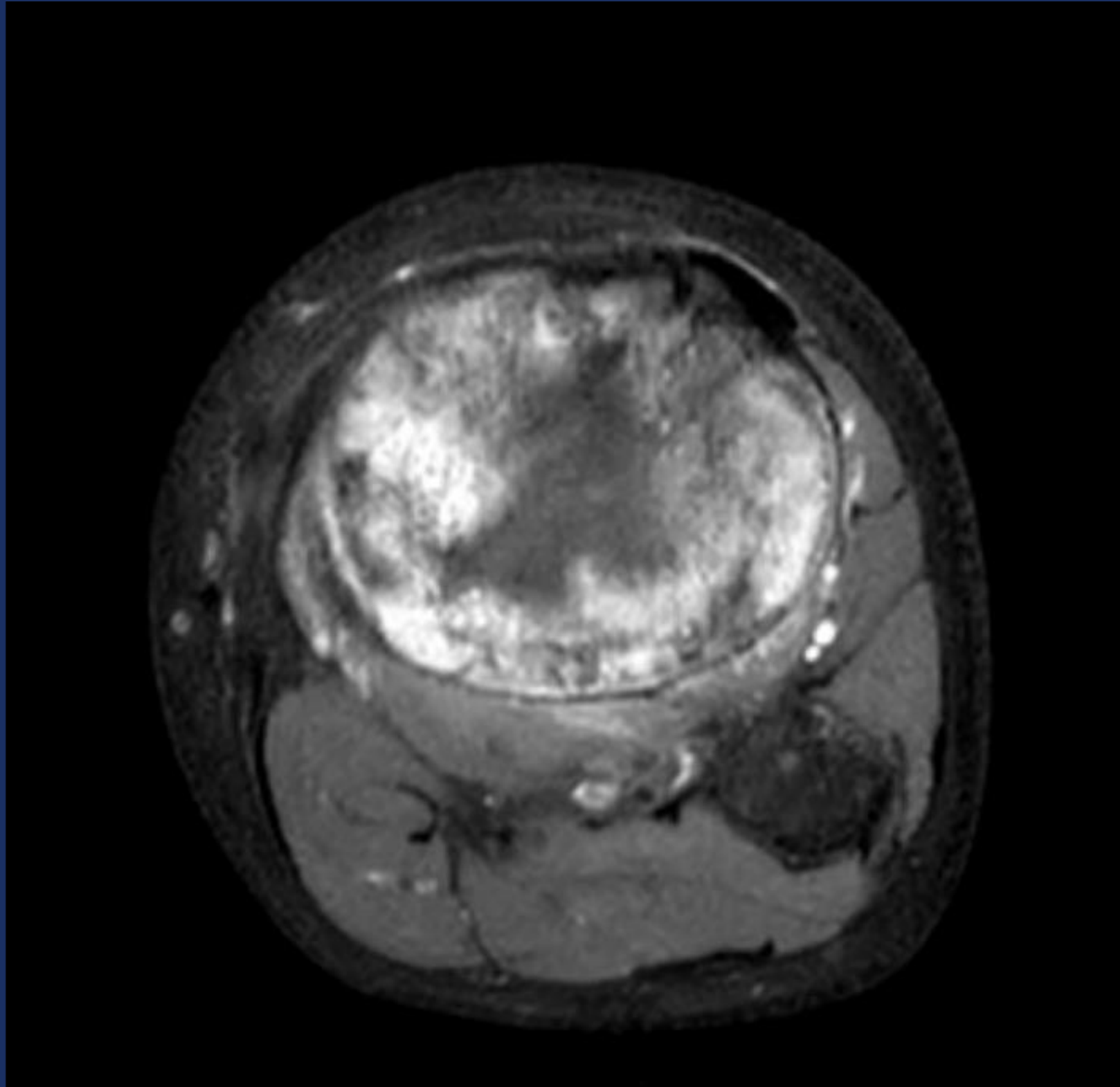
PT is the second most common site of osteosarcoma after the distal femur.



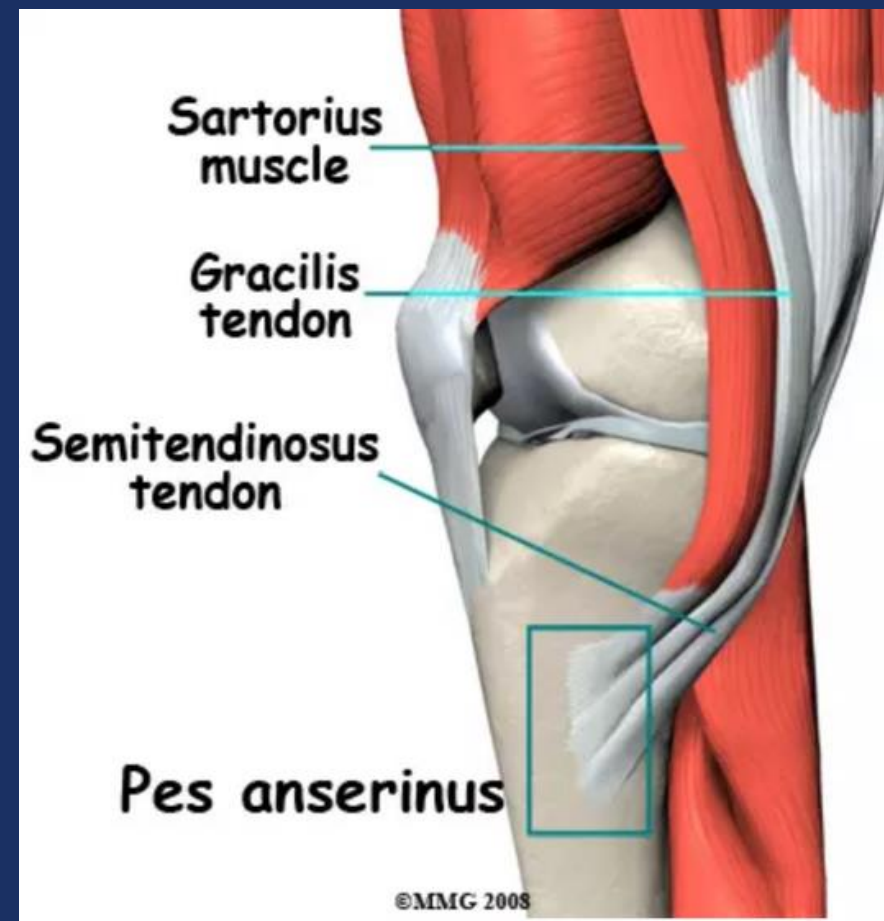
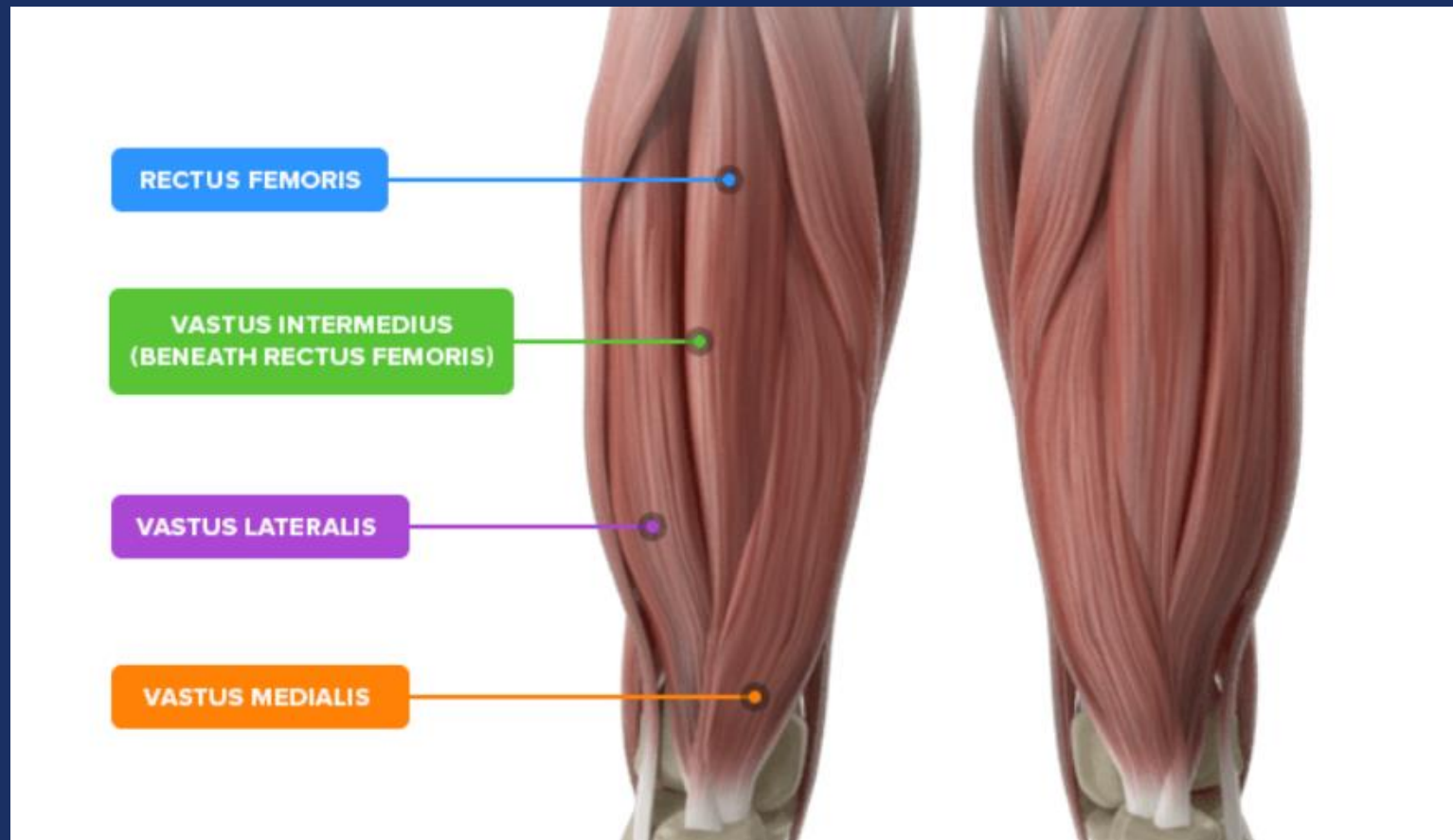
P
E
T



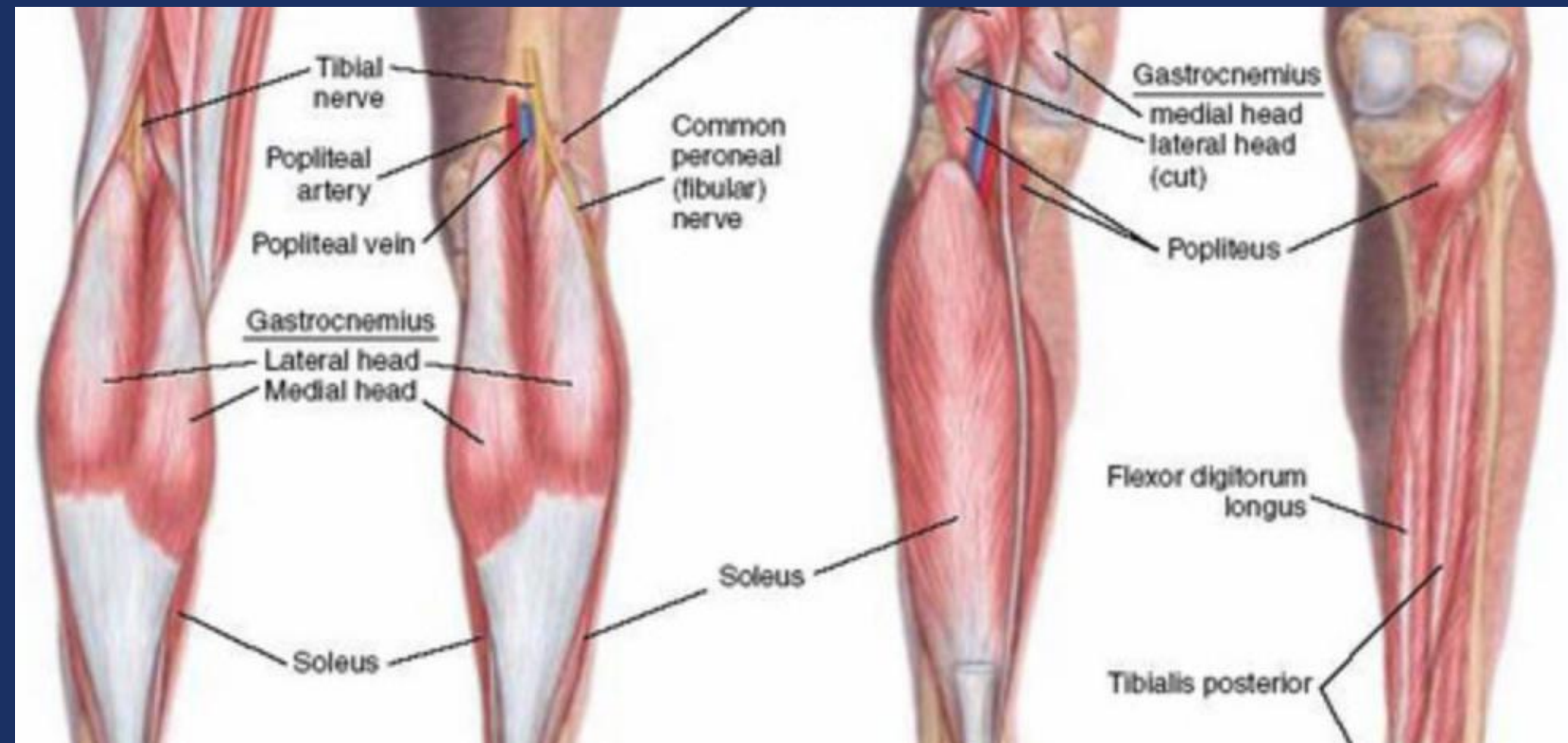
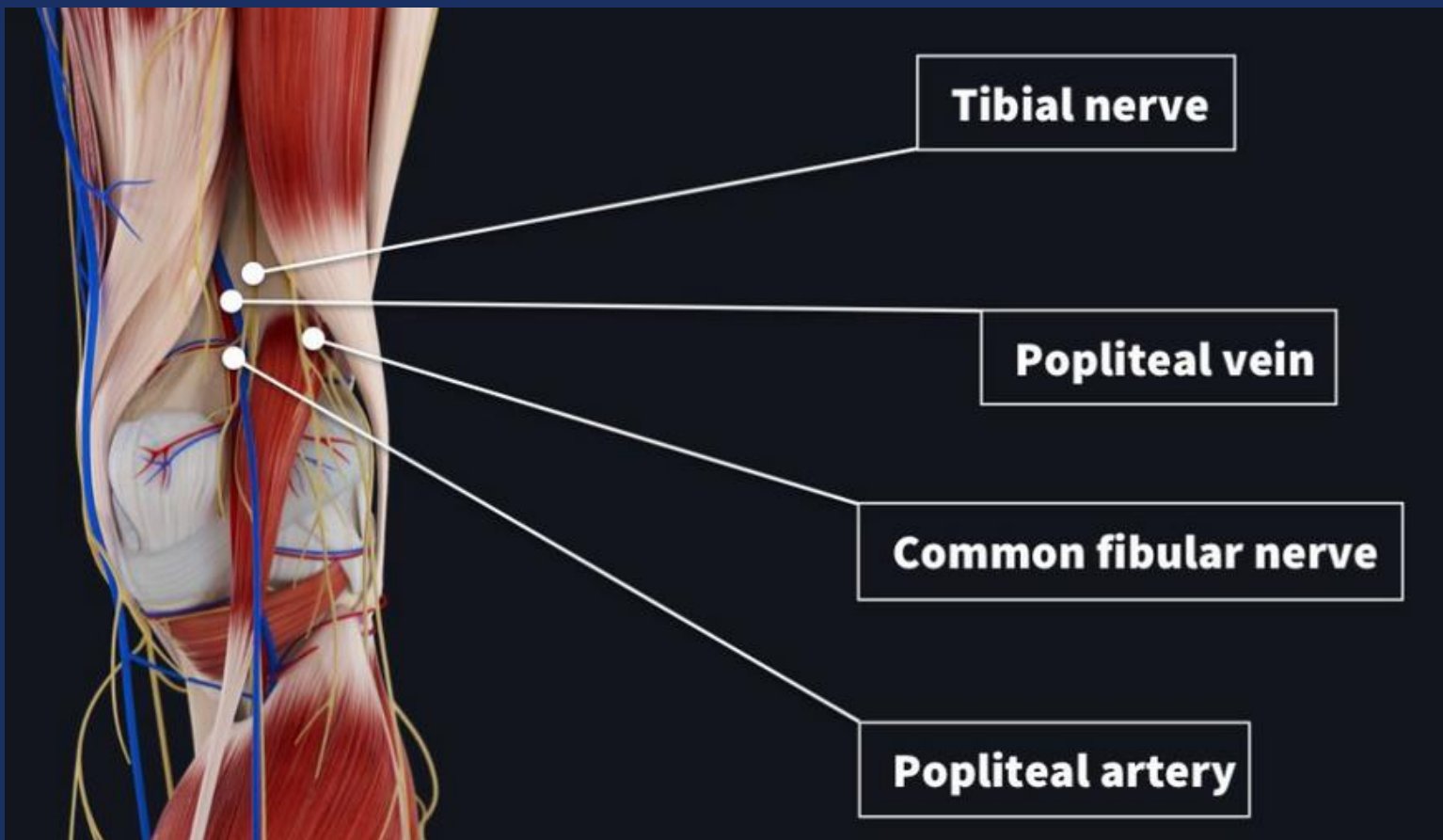
Post- Chemo MRI



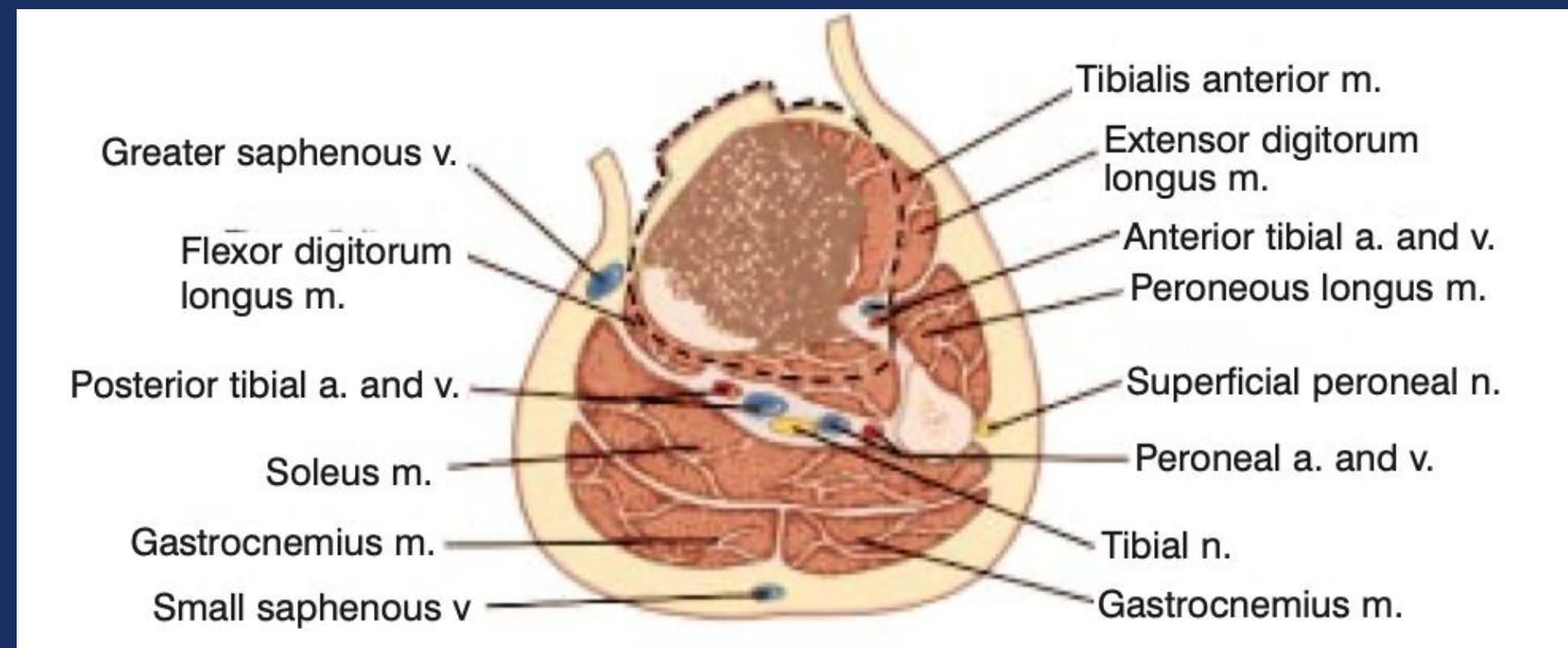
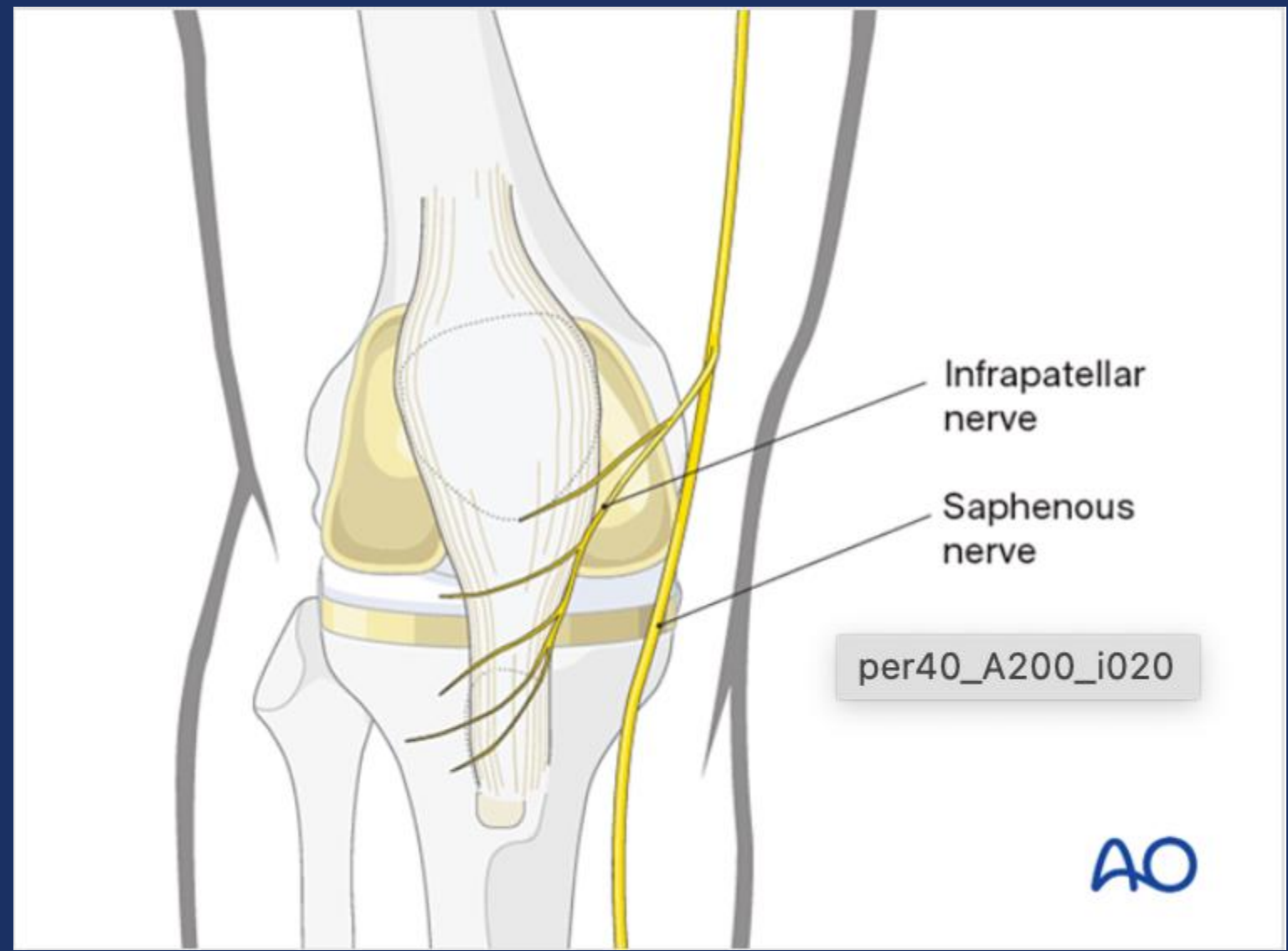
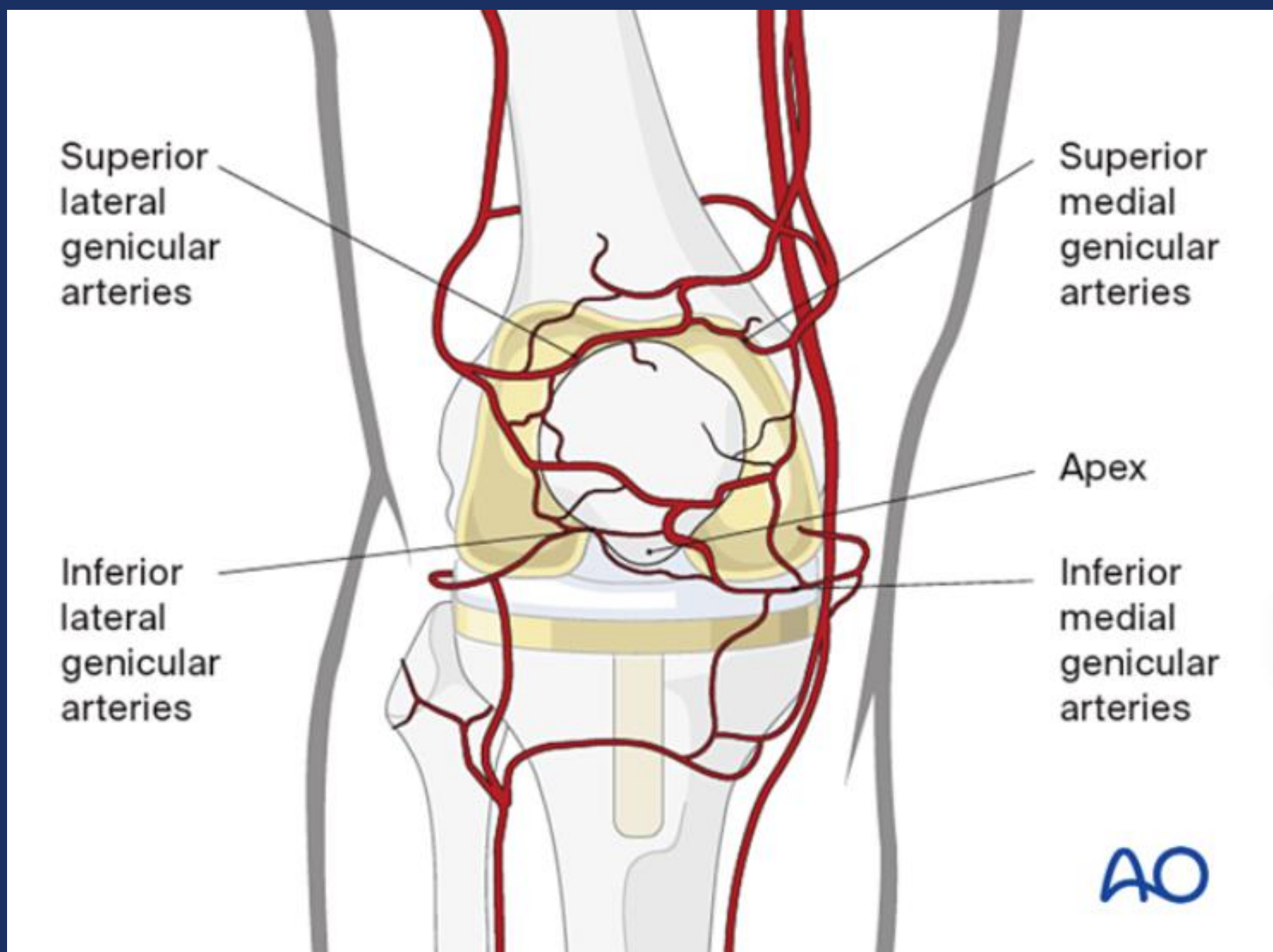
PROXIMAL TIBIAL REPLACEMENT
TUMOR RESECTION ENDOPROSTHESIS WITH
ROTATING HINGE KNEE, PATELLA TENDON
REPAIR,
AND MEDIAL GASTROC FLAP



A DEEPER
LOOK INTO IMPORTANT
STRUCTURES...



THE MEDIAL LONGITUDINAL APPROACH ANATOMY



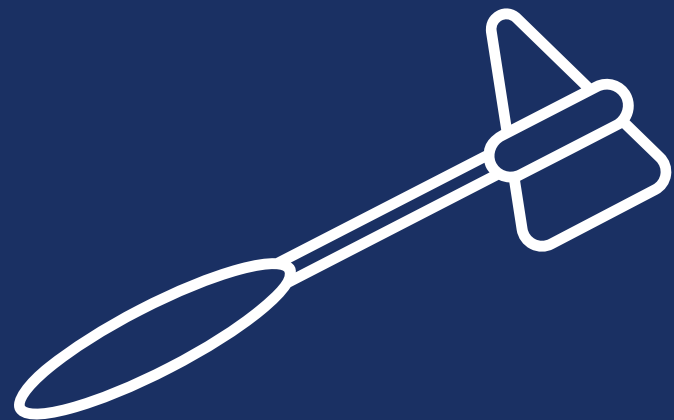
INDICATIONS

1. Painful and disabled joint resulting from avascular necrosis, osteoarthritis, rheumatoid arthritis, or traumatic arthritis.
2. Correction of varus, valgus, or posttraumatic deformity.
3. Correction of revision of unsuccessful osteotomy, arthrodesis or previous joint replacement.
4. Ligament deficiencies.
5. Tumor resections.
6. Treatment of non-unions, femoral neck fracture, and trochanteric fractures of the proximal femur with head involvement, unmanageable using other techniques.*
7. Revision of previously failed total joint arthroplasty.
8. Trauma.

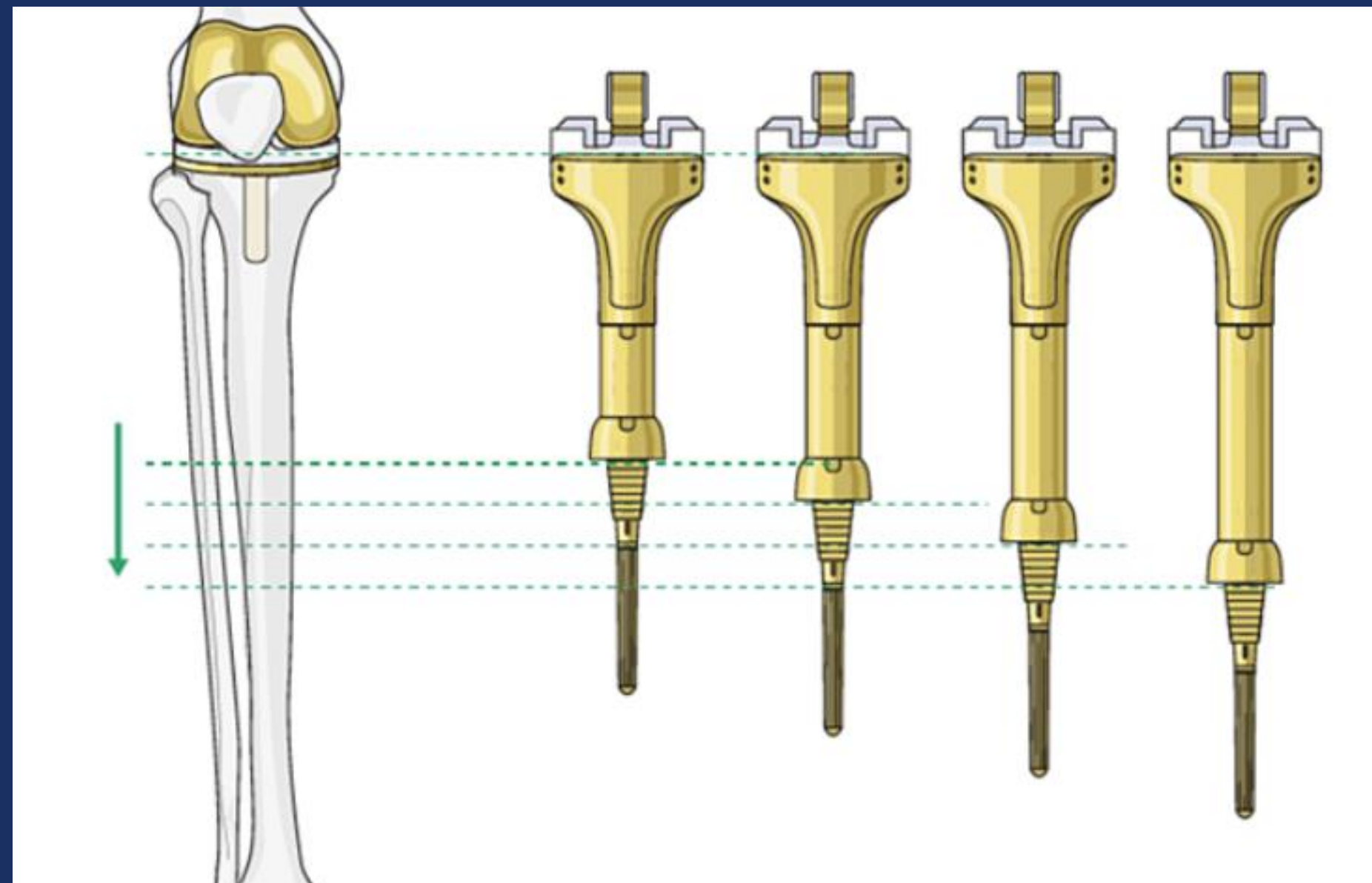
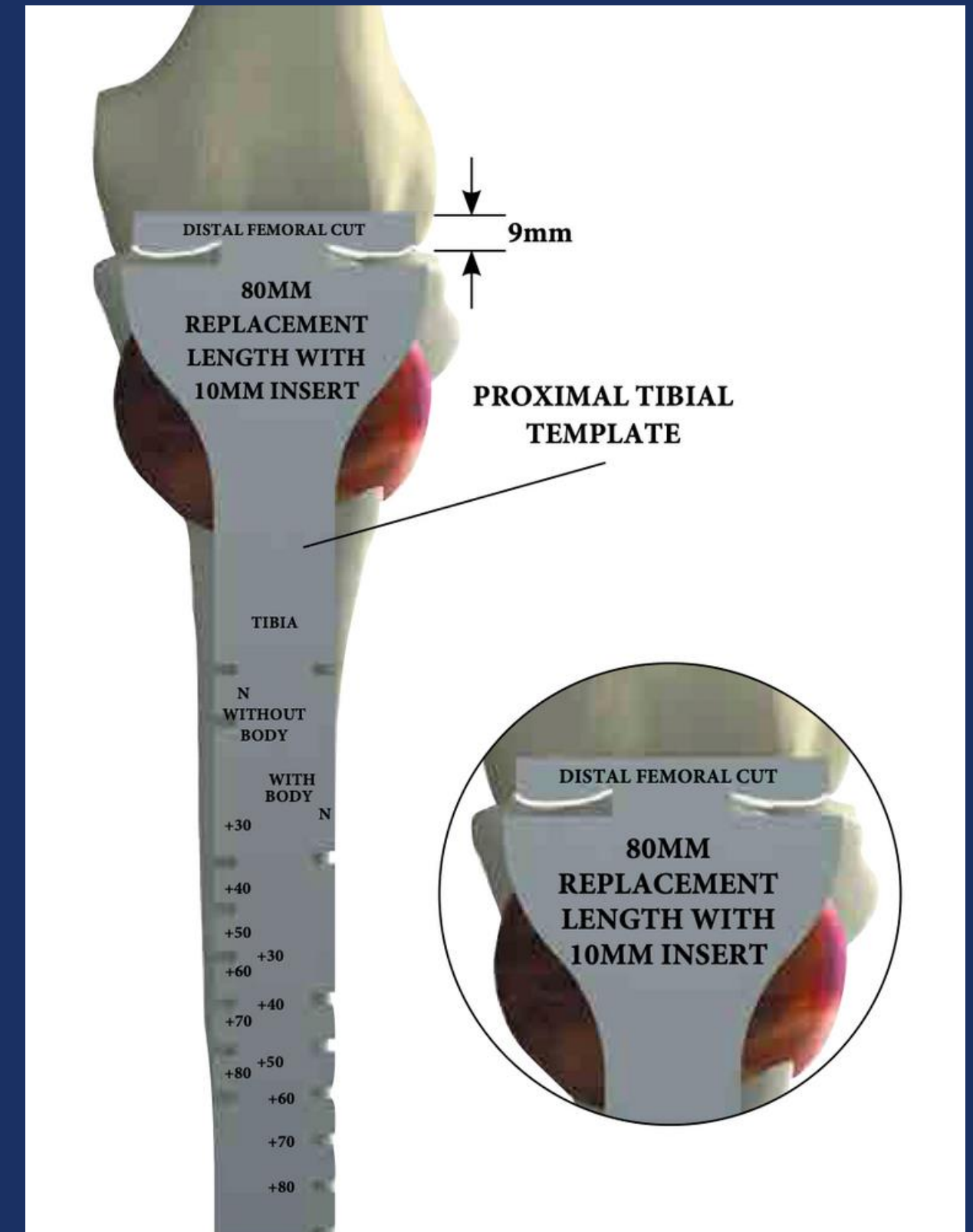
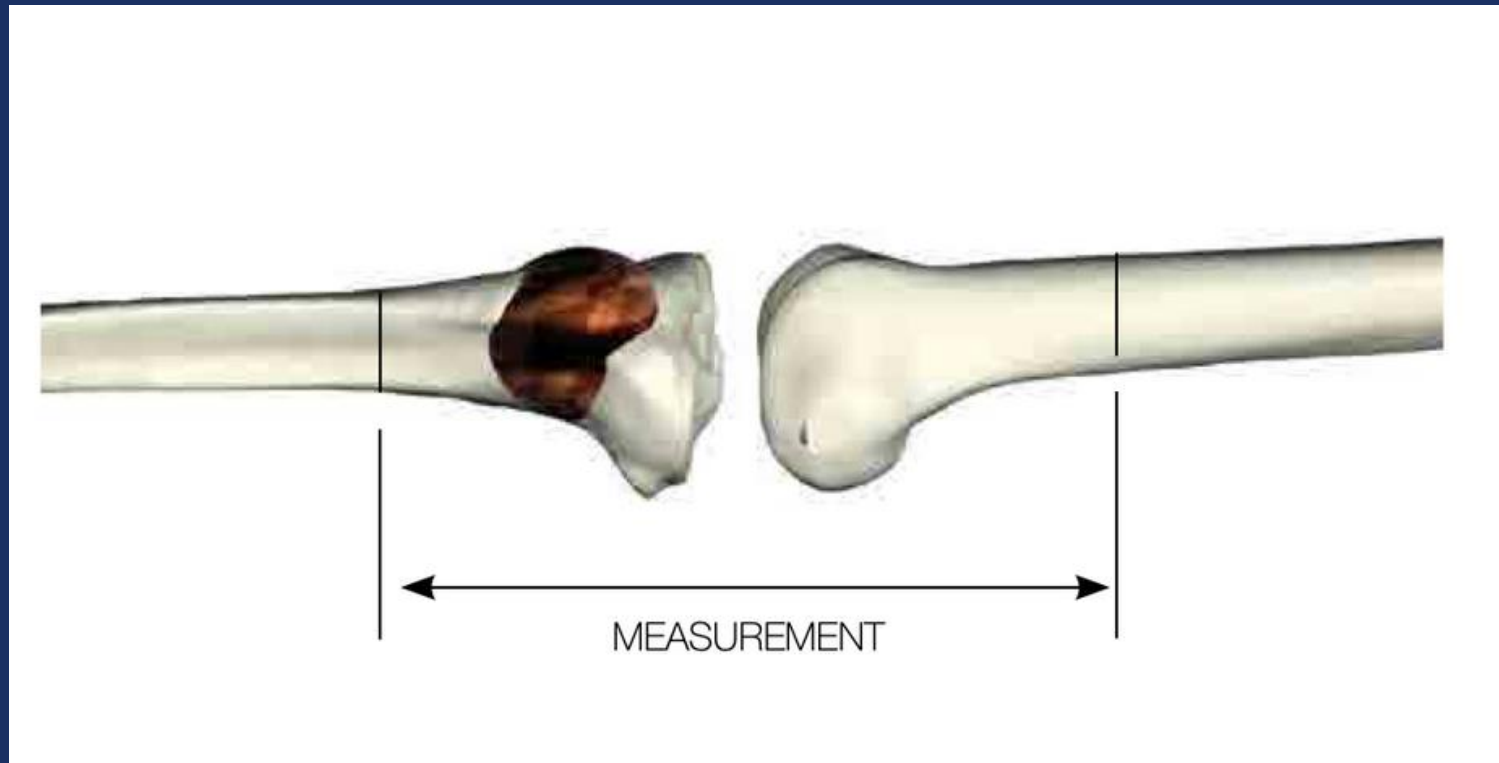


Indications and Contraindications

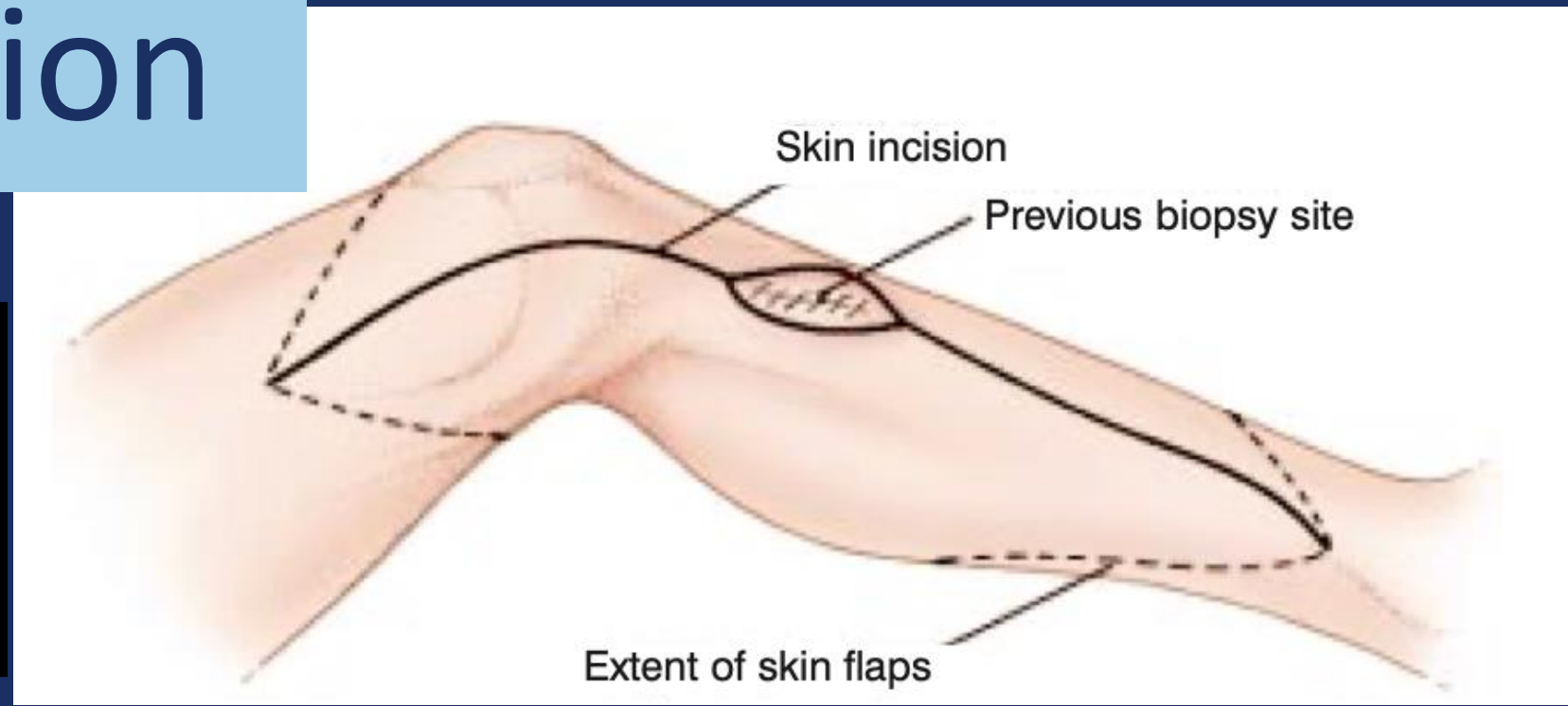
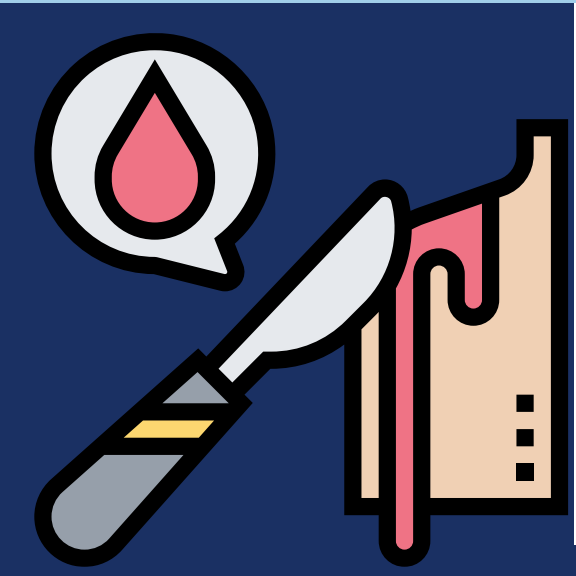
Absolute contraindications include: infection, sepsis, and osteomyelitis. Relative contraindications include: 1) uncooperative patient or patient with neurologic disorders who are incapable of following directions, 2) osteoporosis, 3) metabolic disorders which may impair bone formation, 4) osteomalacia, 5) distant foci of infections which may spread to the implant site, 6) rapid joint destruction, marked bone loss or bone resorption apparent on roentgenogram, 7) vascular insufficiency, muscular atrophy, or neuromuscular disease.



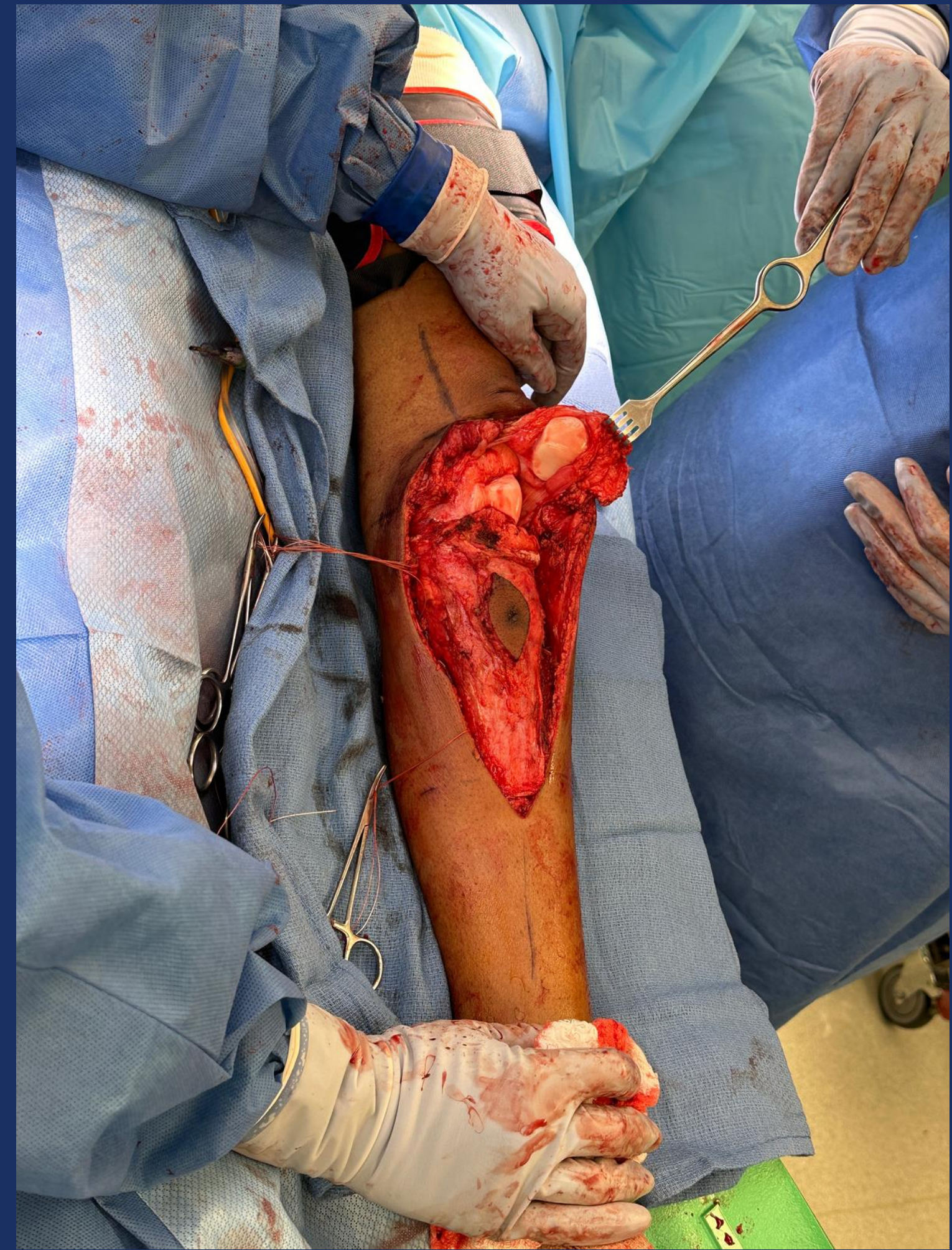
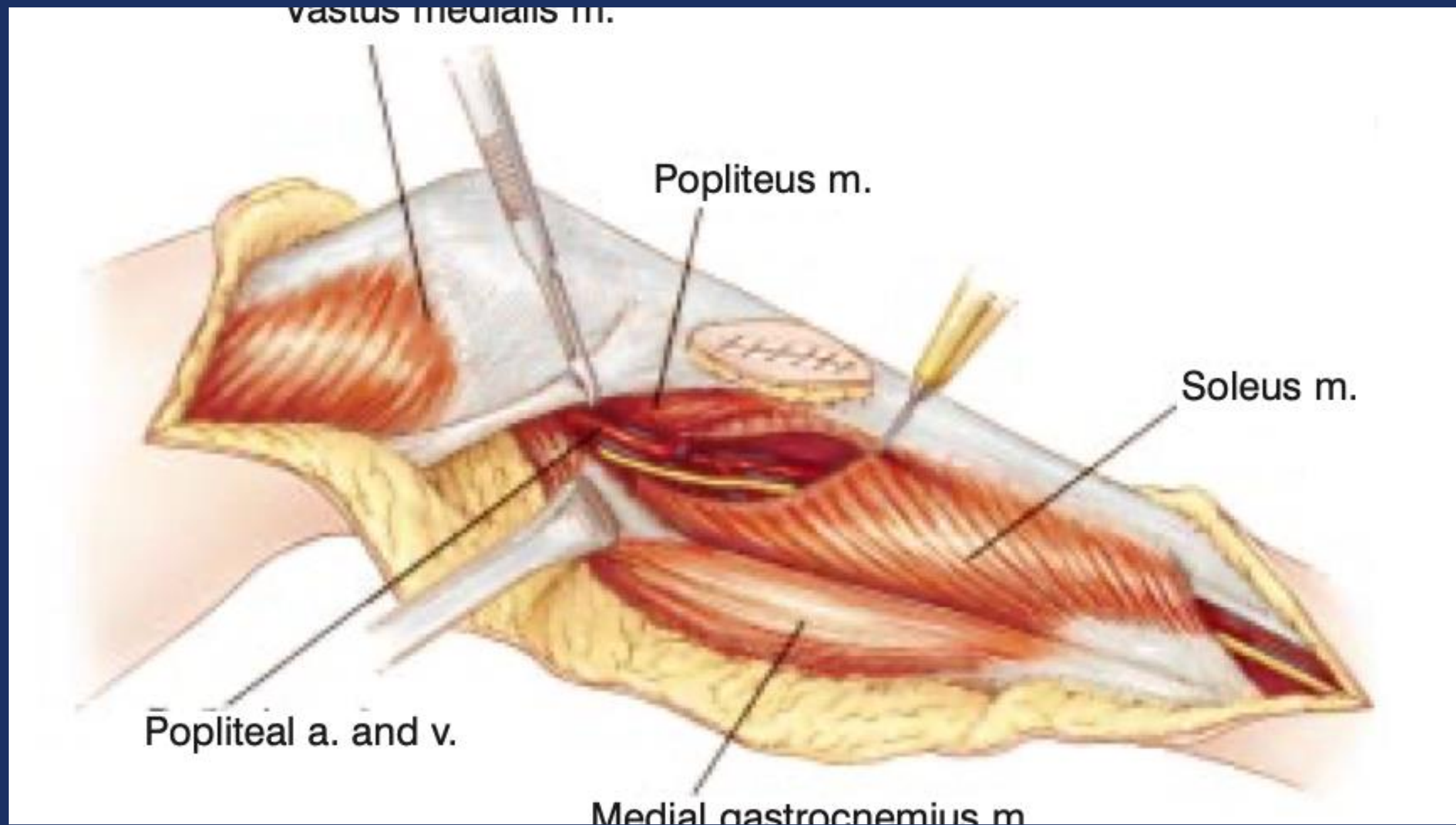
Pre-Op Planning

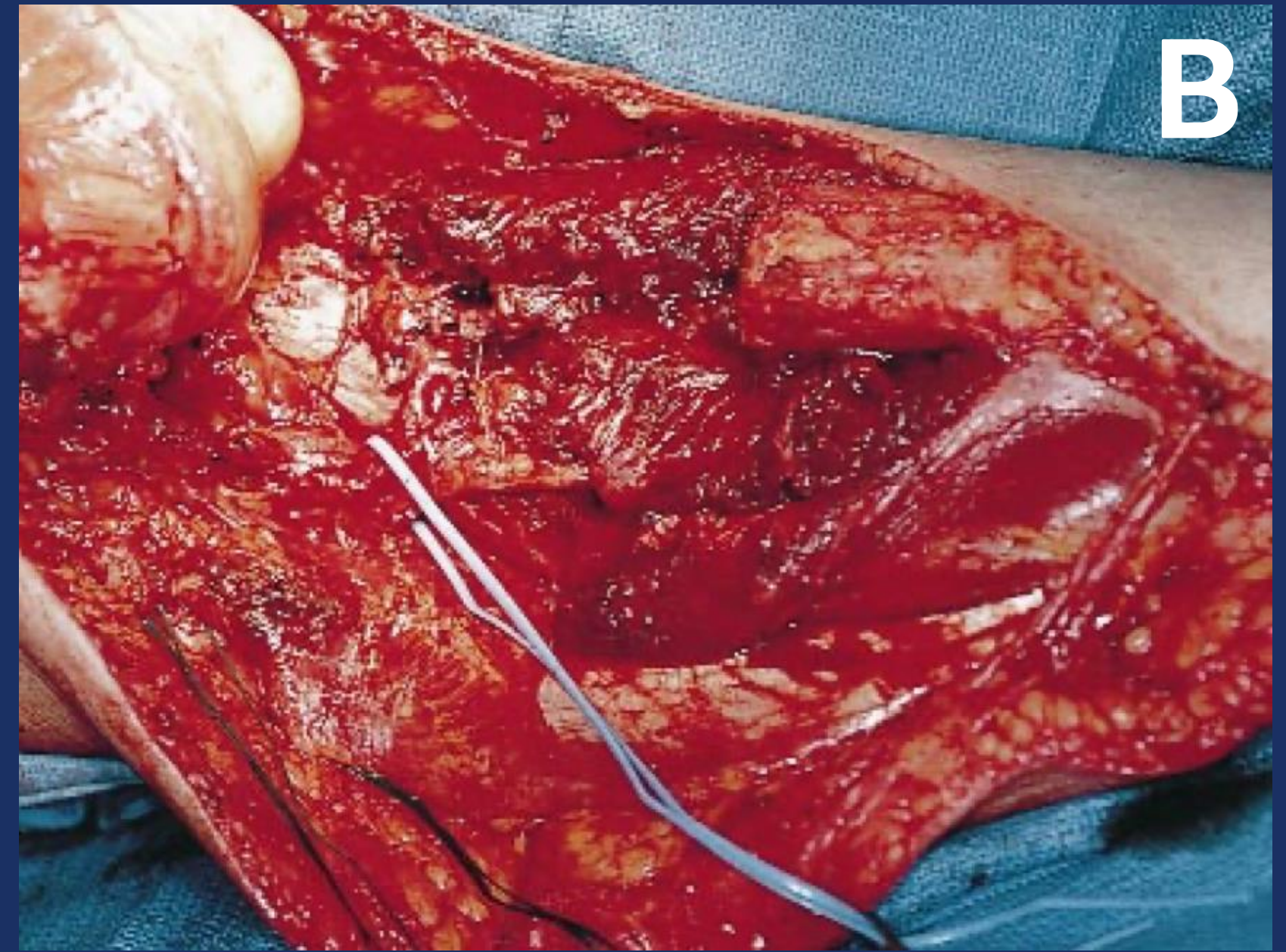
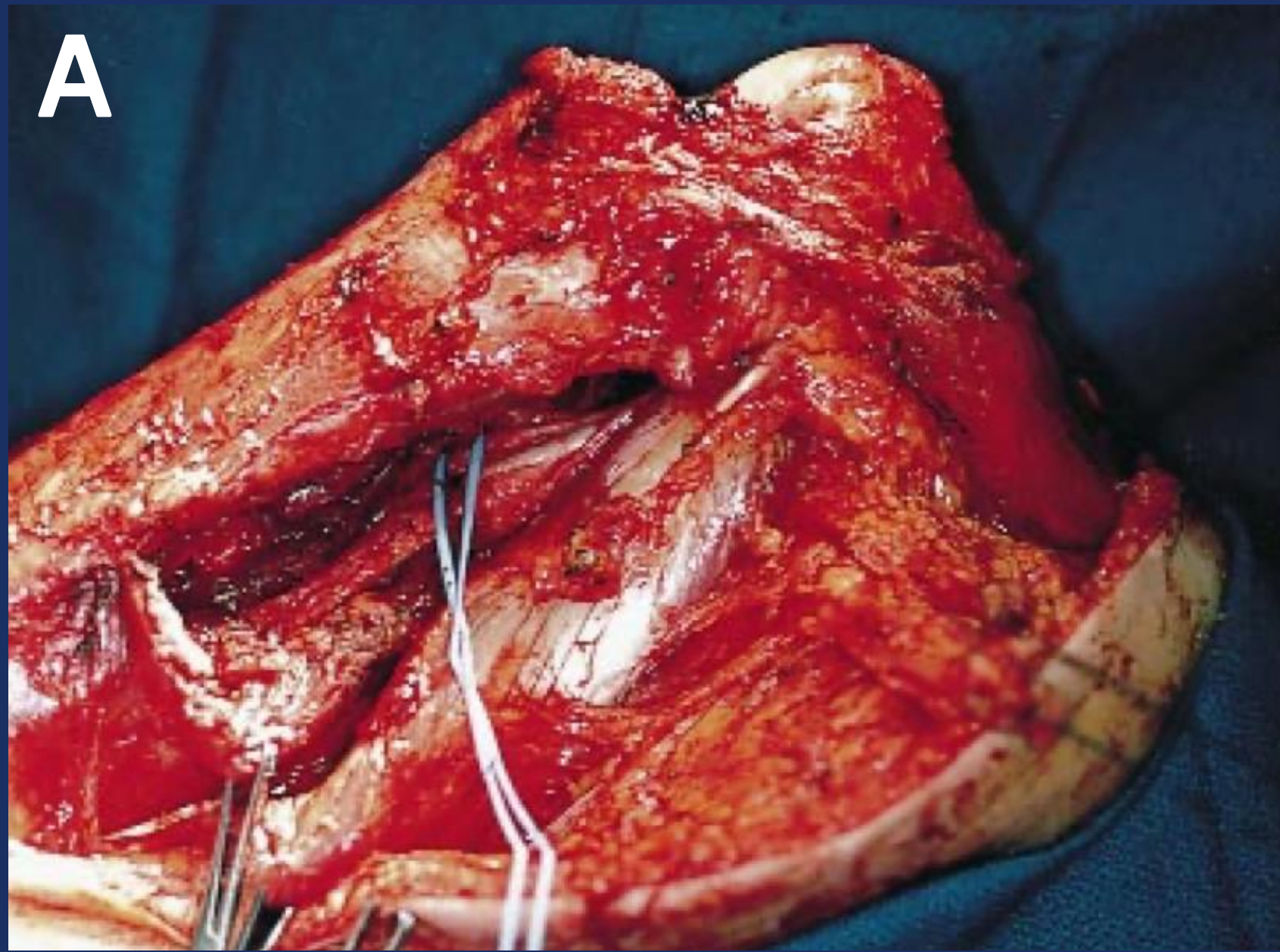


Incision



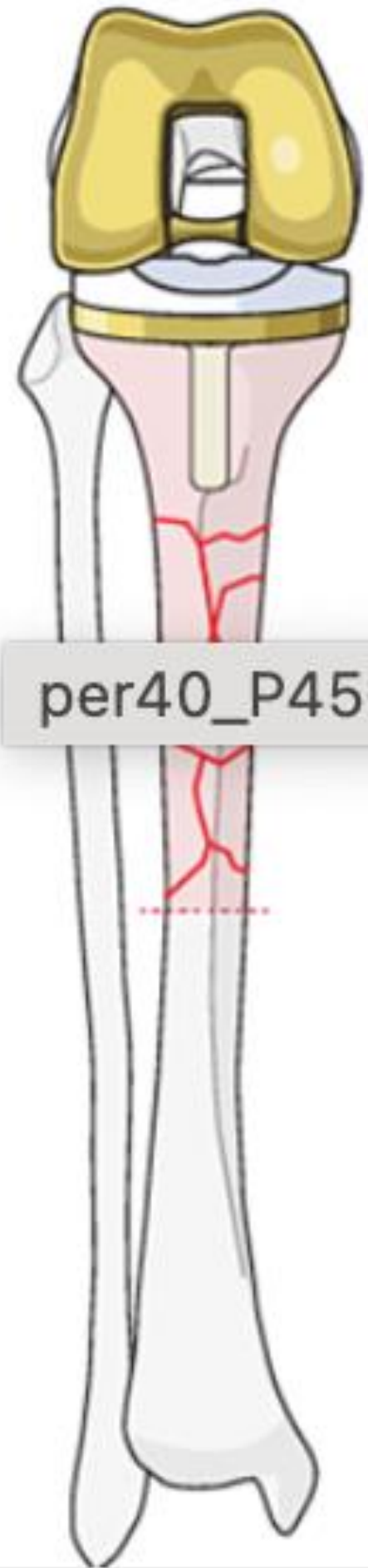
vastus medialis m.



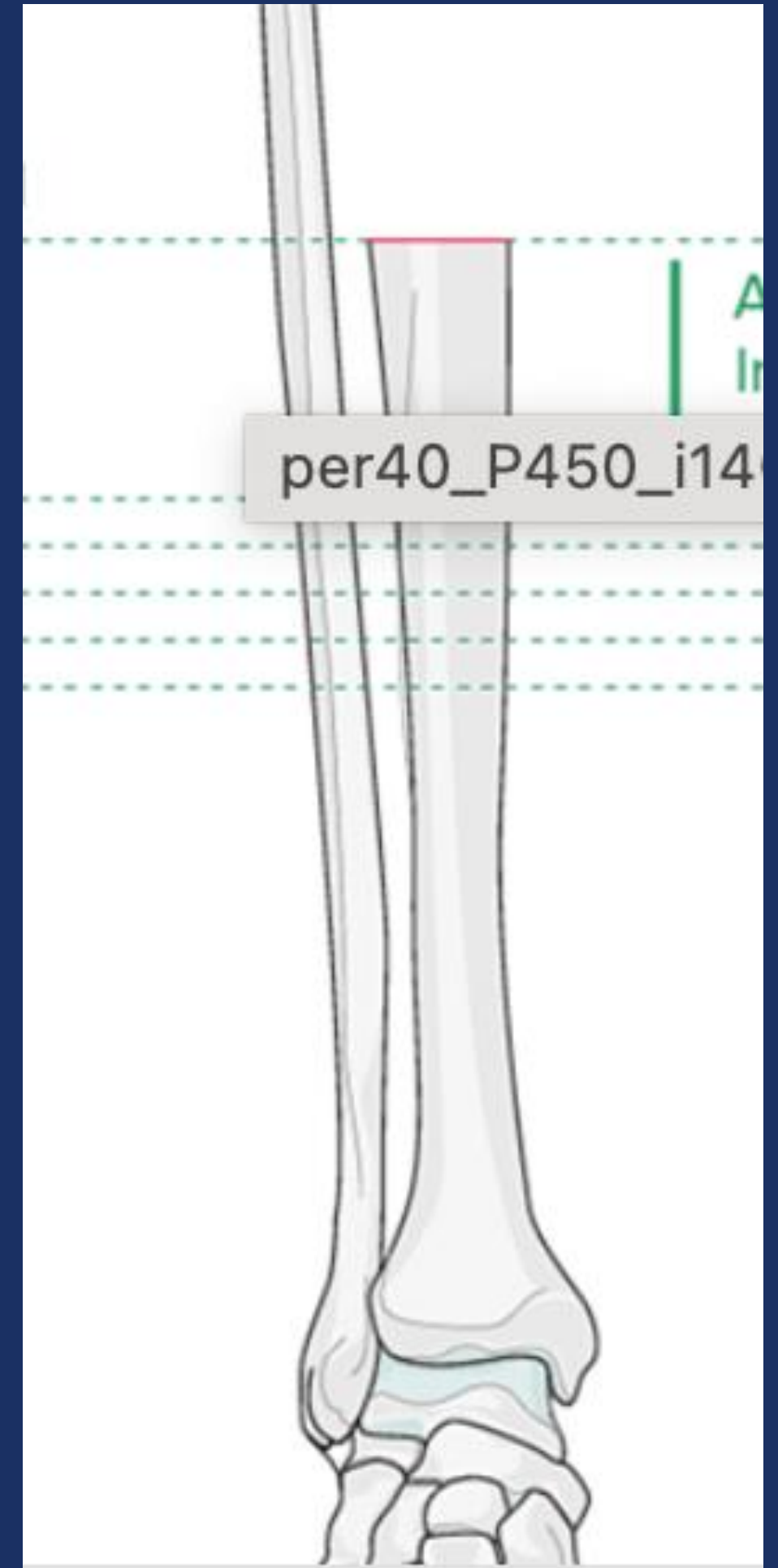
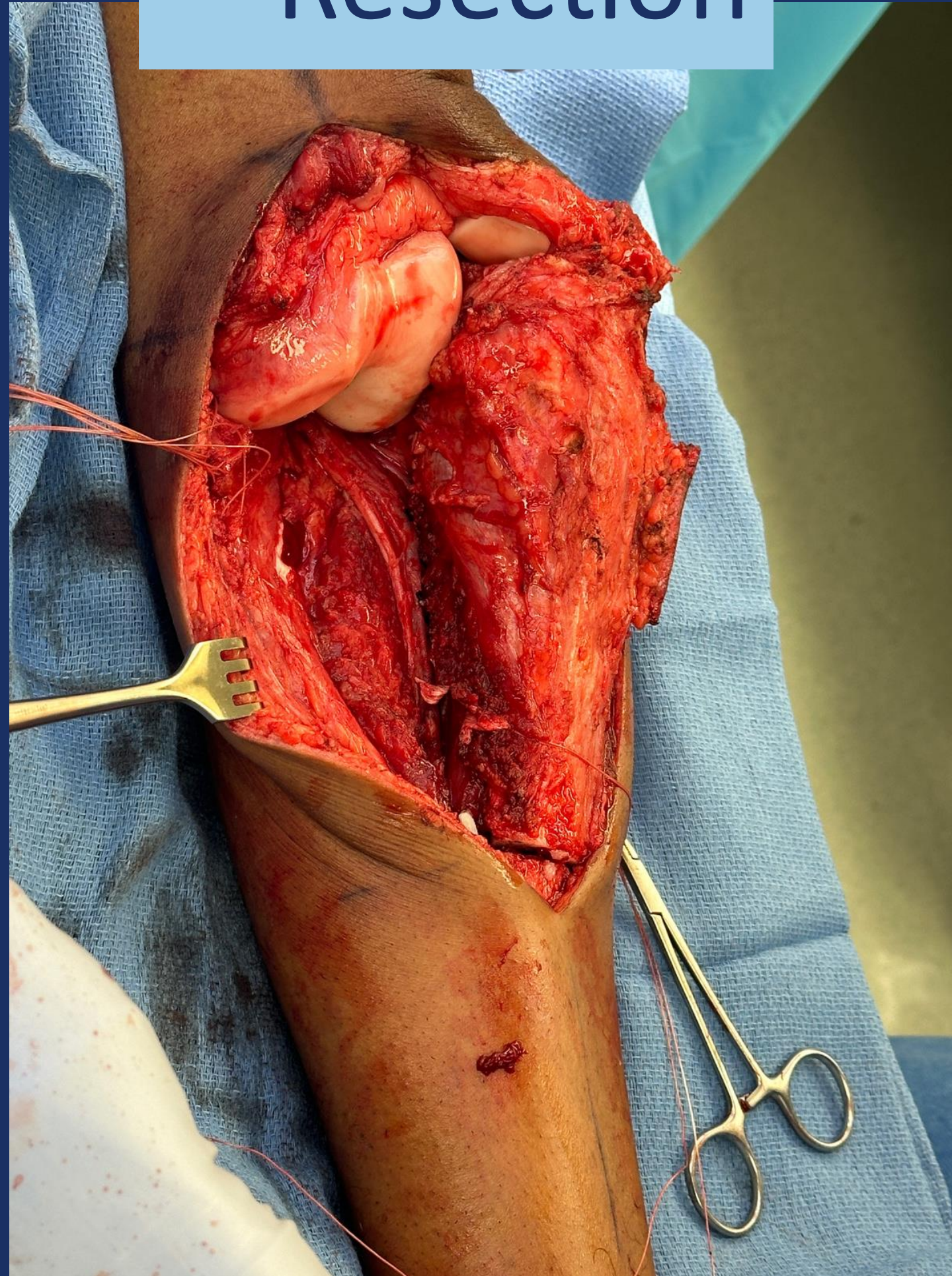


tissue coverage and reconstruction of the extensor mechanism. (A) Intraoperative photograph of exposure and exploration of the proximal tibia and popliteal vessels prior to resection. The vessel loop is on the anterior tibial artery, which is routinely ligated. (B) Intraoperative photograph demonstrating the segmental defect following resection of the proximal tibia. The vessel loop is around the popliteal and the tibial peroneal vessels. (C) A Modular Segmental Prosthesis cemented into place with the

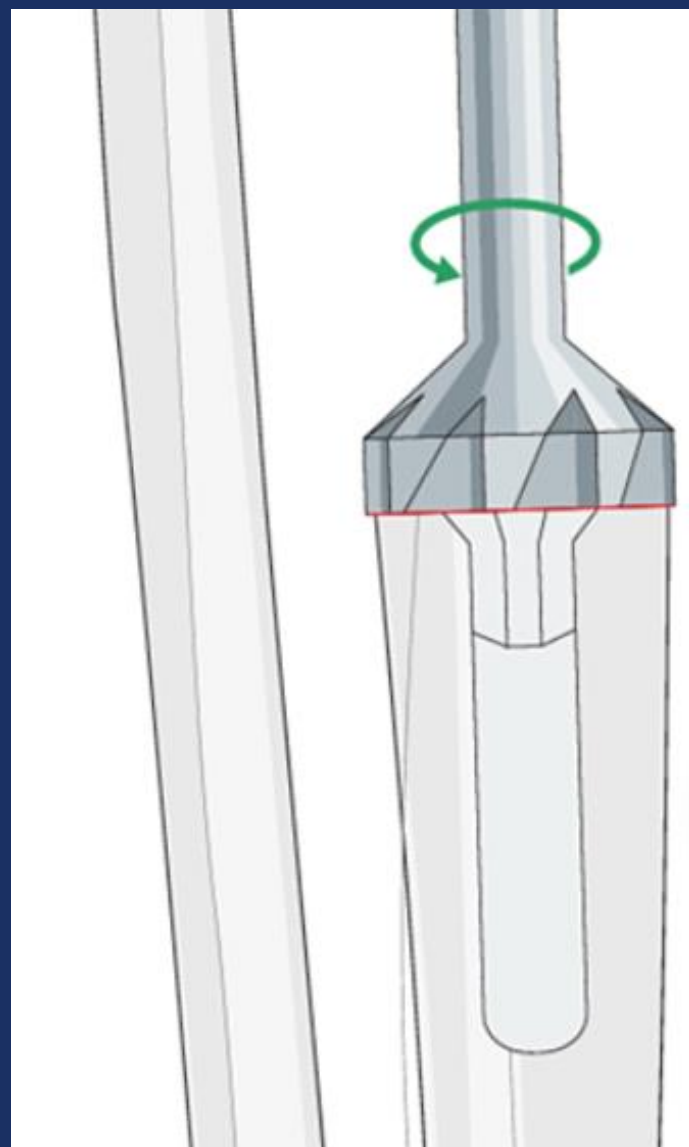
Resection



per40_P450_i120



per40_P450_i14



- REAM
- TRIAL
- LEG LENGTH
- ROTATIONAL ALIGNMENT

MRS Cemented Stems

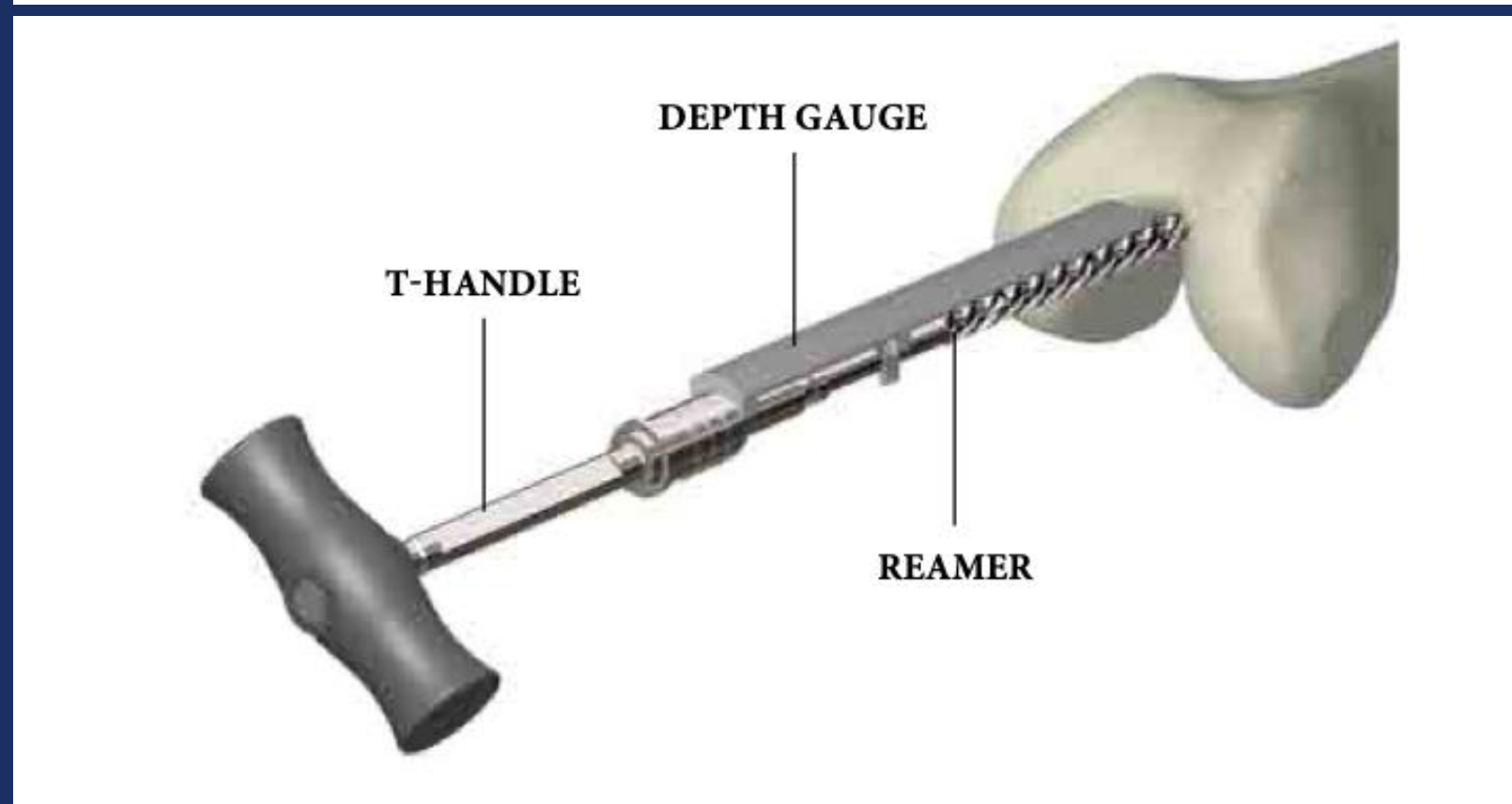
Cemented Straight Stems	
Ø8mm	6485-3-018
Ø9mm	6485-3-019
Ø10mm	6485-3-010
Ø11mm	6485-3-111
Ø13mm	6485-3-113
Ø15mm	6485-3-115
Ø17mm	6485-3-117

Cemented Straight Stems w/body	
Ø8mm	6485-3-008
Ø9mm	6485-3-009
Ø10mm	6485-3-000
Ø11mm	6485-3-011
Ø13mm	6485-3-013
Ø15mm	6485-3-015
Ø17mm	6485-3-017

Extension Piece

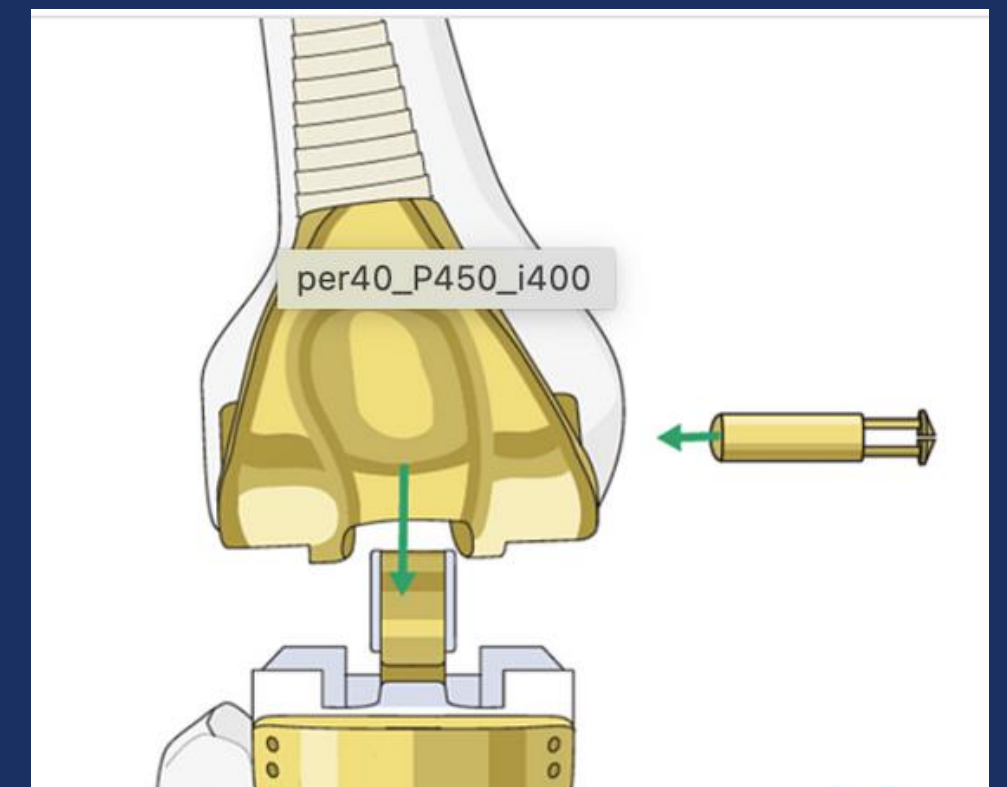
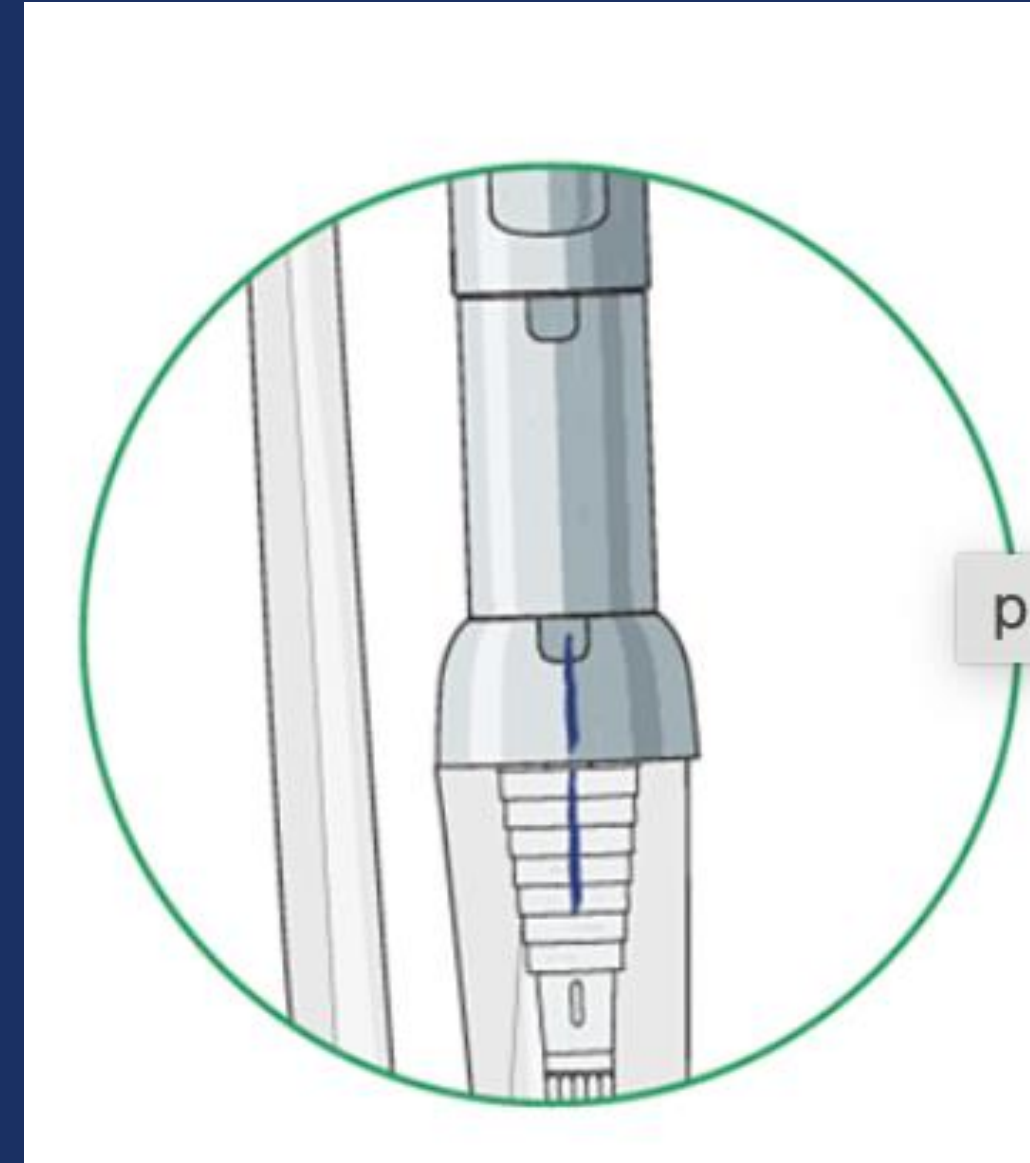
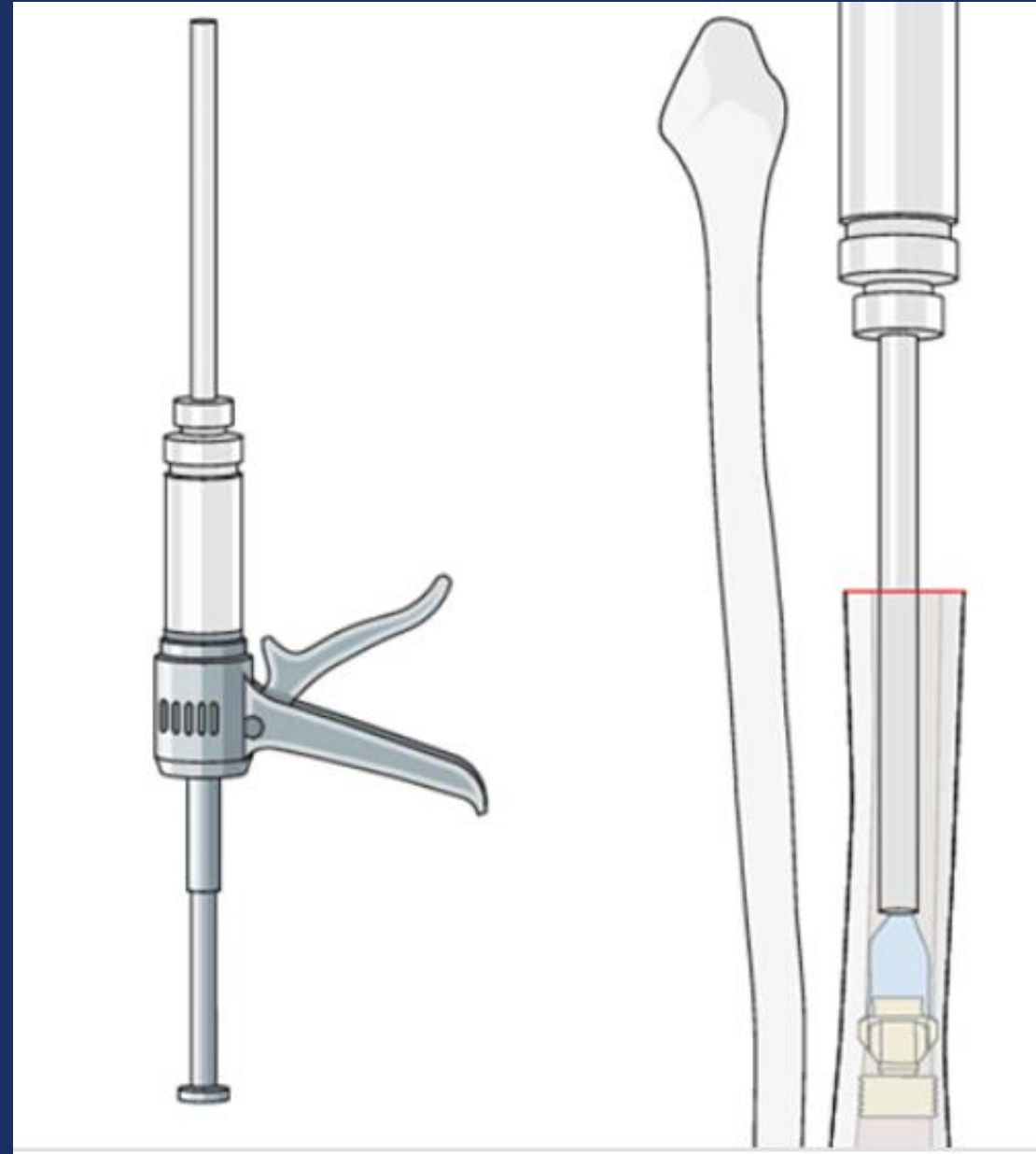
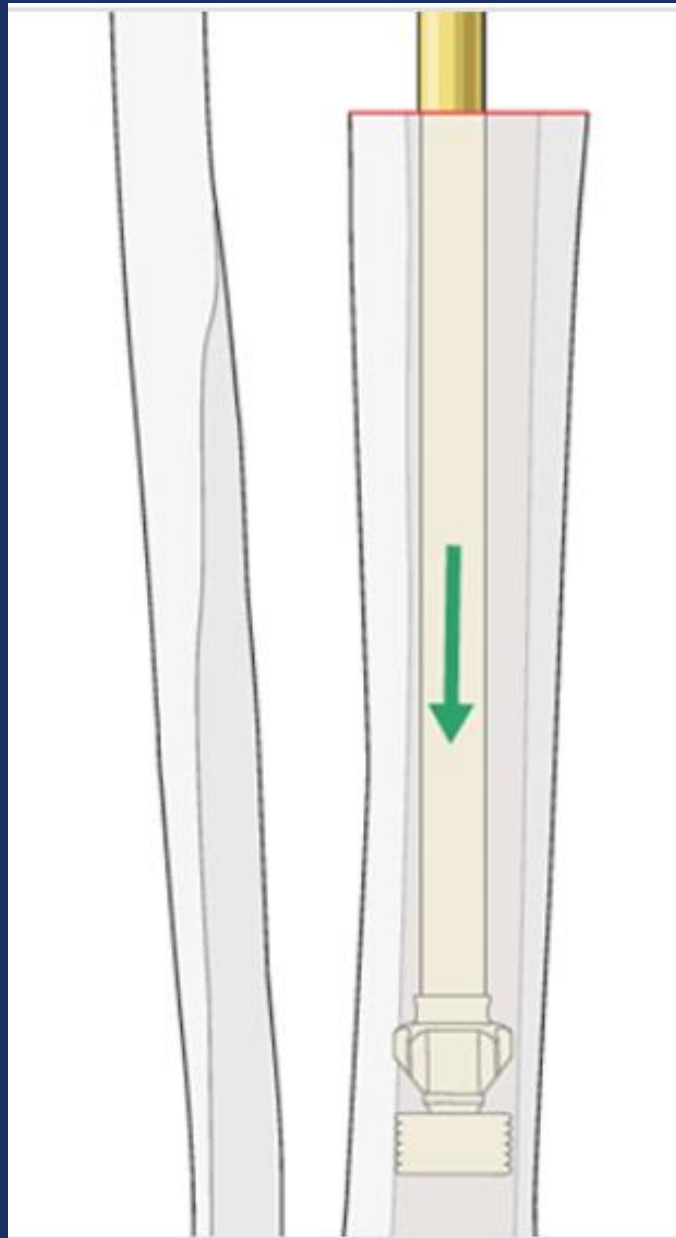
MRH Femoral Component

Femoral Components

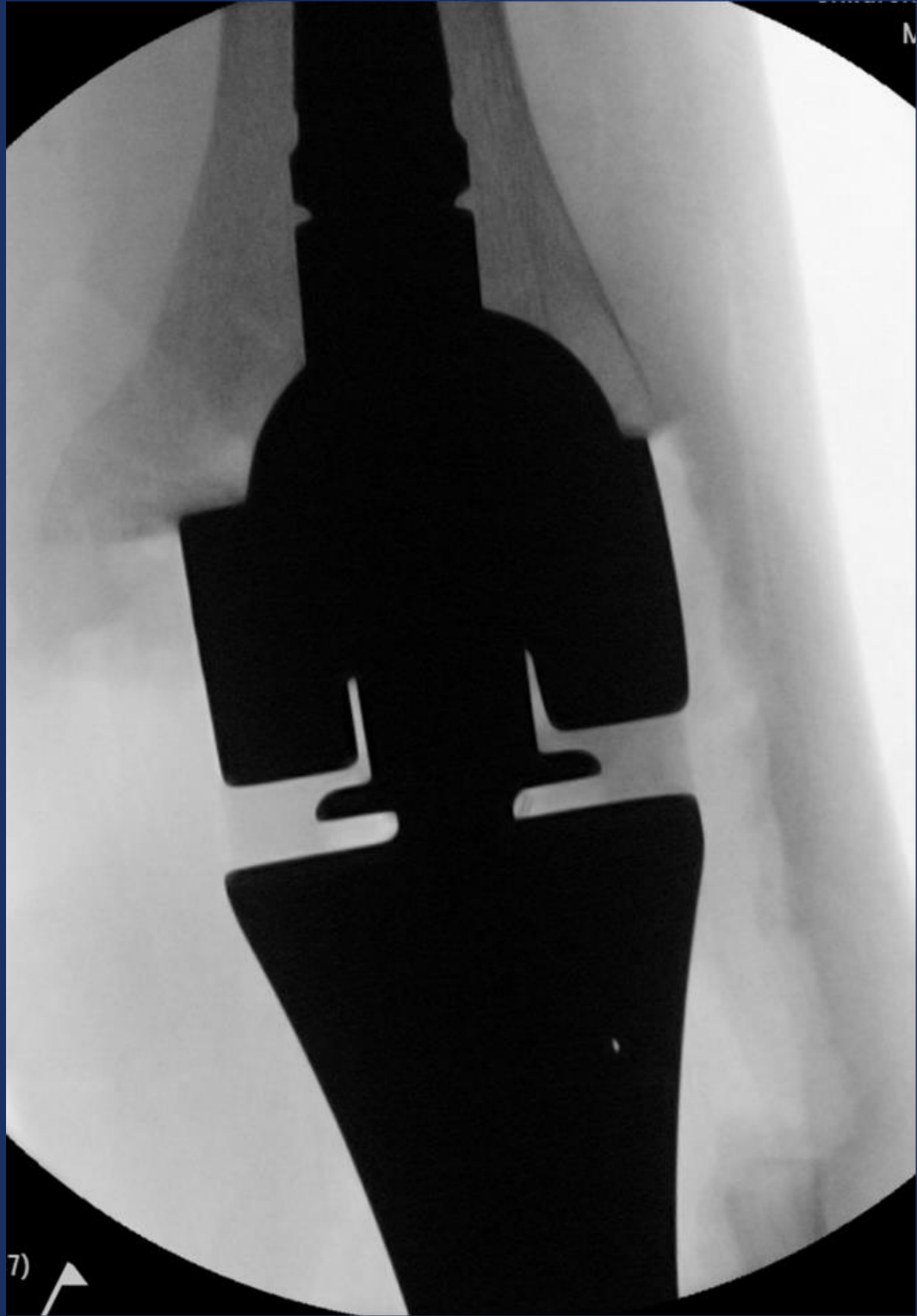
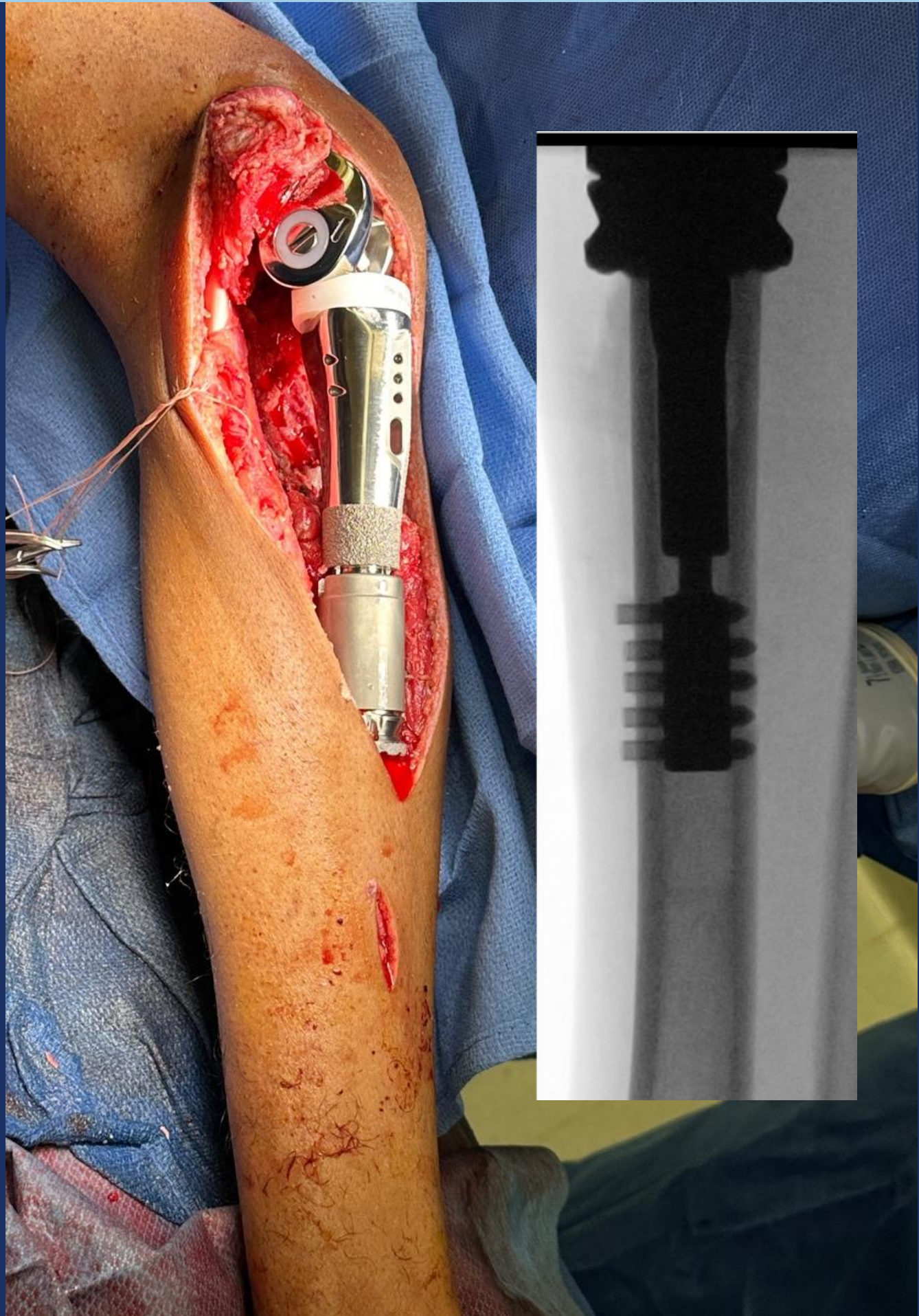


Ream and Trial Components

- RESTRICTOR
 - CEMENT
- TIBIAL COMPONENT
 - COUPLE



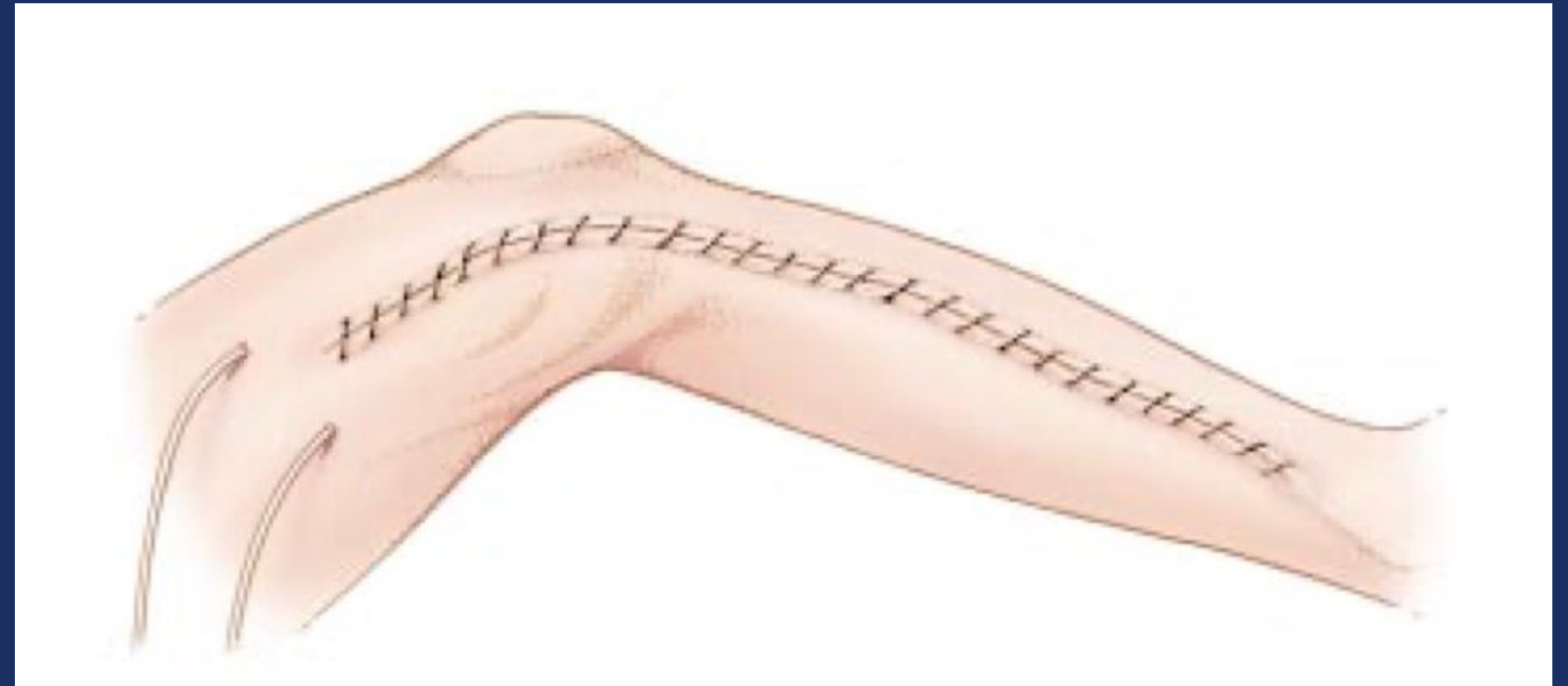
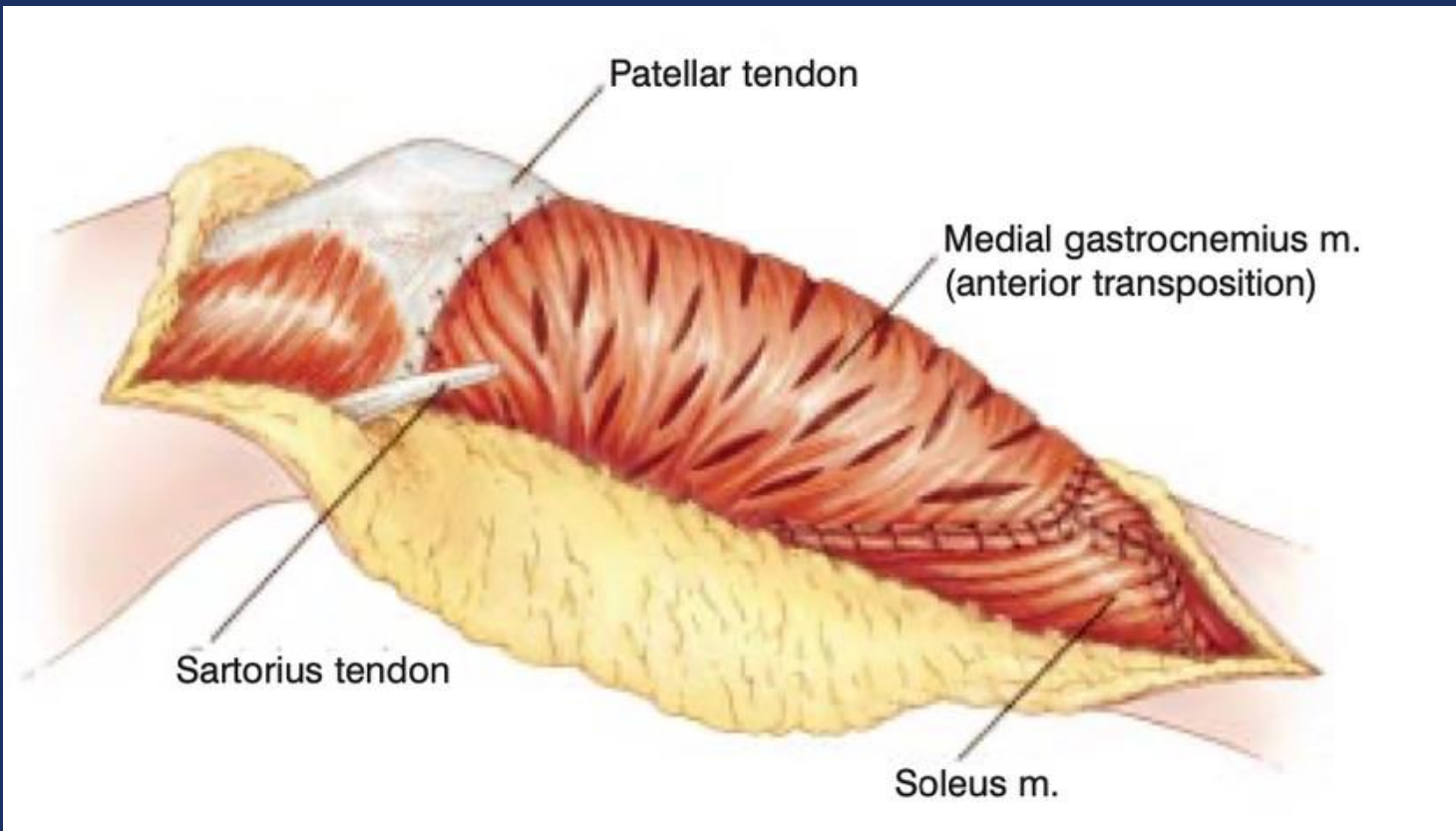
Endoprosthesis



Patella and Medial Gastrocnemius



Closure



Suture Types

Absorbable

Non-absorbable

Braided

Monofilament

Braided

Monofilament

Vicryl

Vicryl rapide

Monocryl

Fast absorbing gut

Chromic gut

Ethibond

Silk

Ethilon

Prolene

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M.D.

Jesse Seilern, M.D.

Amber Hamilton, M.D.

Zaamin Hussain, M.D.



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<https://youtu.be/Cze88v84Dhs?si=KLGt0lkrz2HzQh3S>

Questions?

