

MANAGING DEGENERATIVE SHOULDER PAIN

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Hand & Upper Extremity





I have no disclosures relevant to the material presented in this discussion.

A close-up, low-angle shot of a swimmer's head and shoulders as they break the surface of the water. The swimmer is wearing a blue, ribbed swim cap and black goggles. Water droplets are visible on the swimmer's skin and the cap. The background is a soft-focus view of the water and sky.

GET BACK
TO WHAT
YOU LOVE

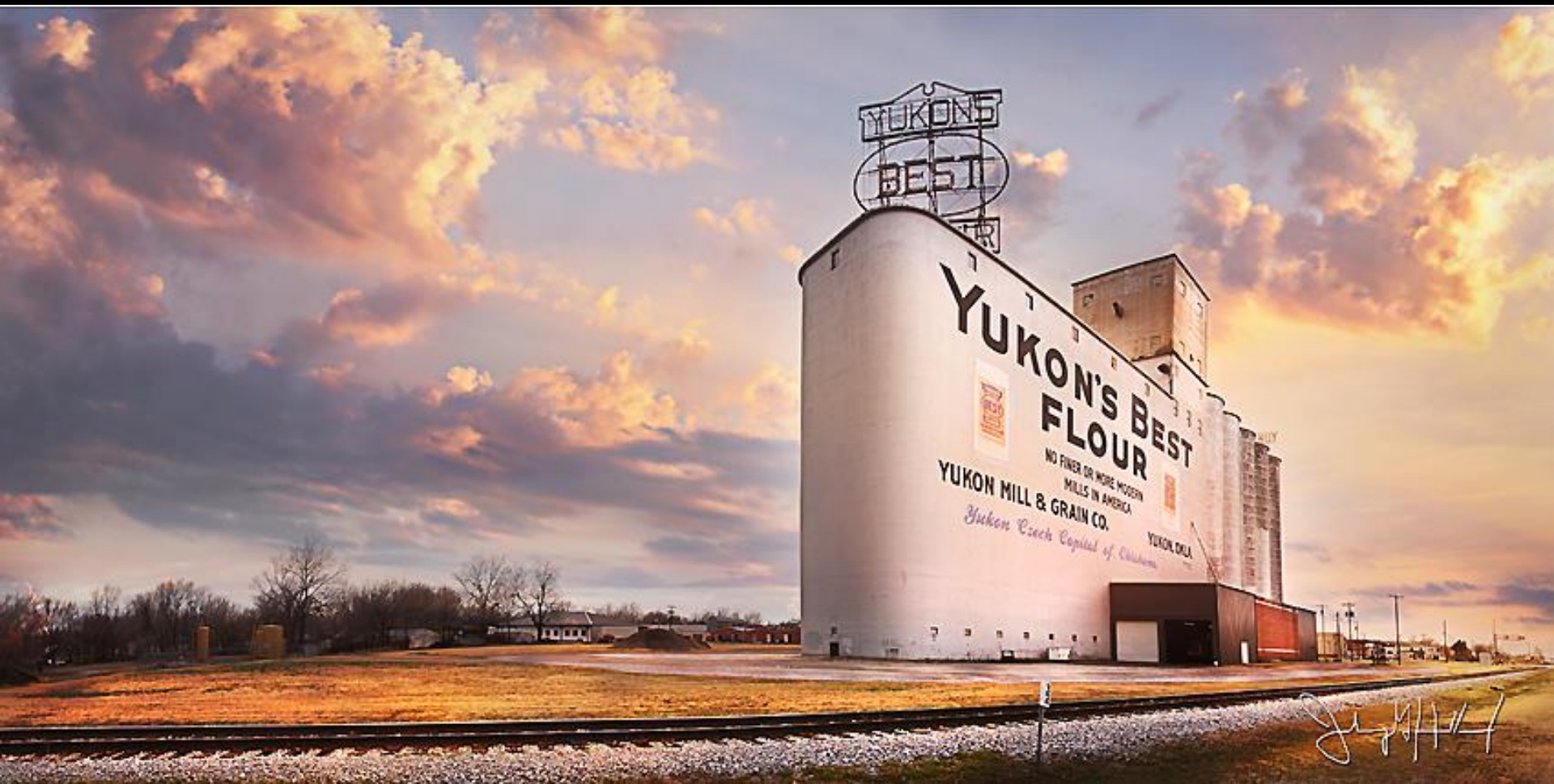
Managing Shoulder Pain

Practical Application in the Primary Practice Setting

Exactech®







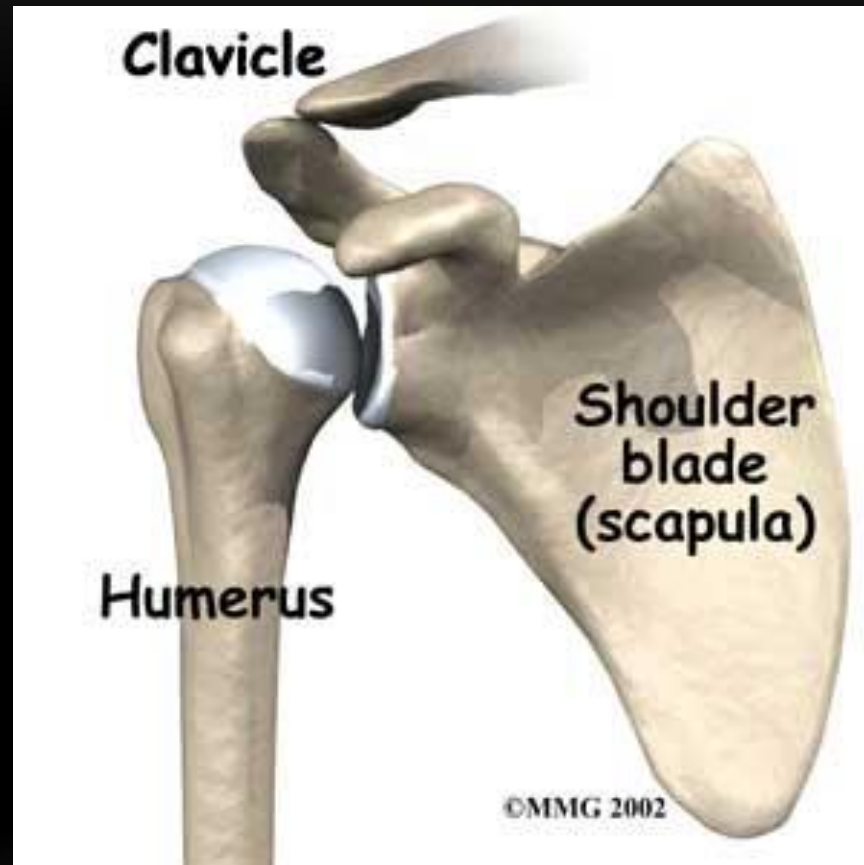
TAMPA GENERAL / FLORIDA ORTHOPAEDIC INSTITUTUE



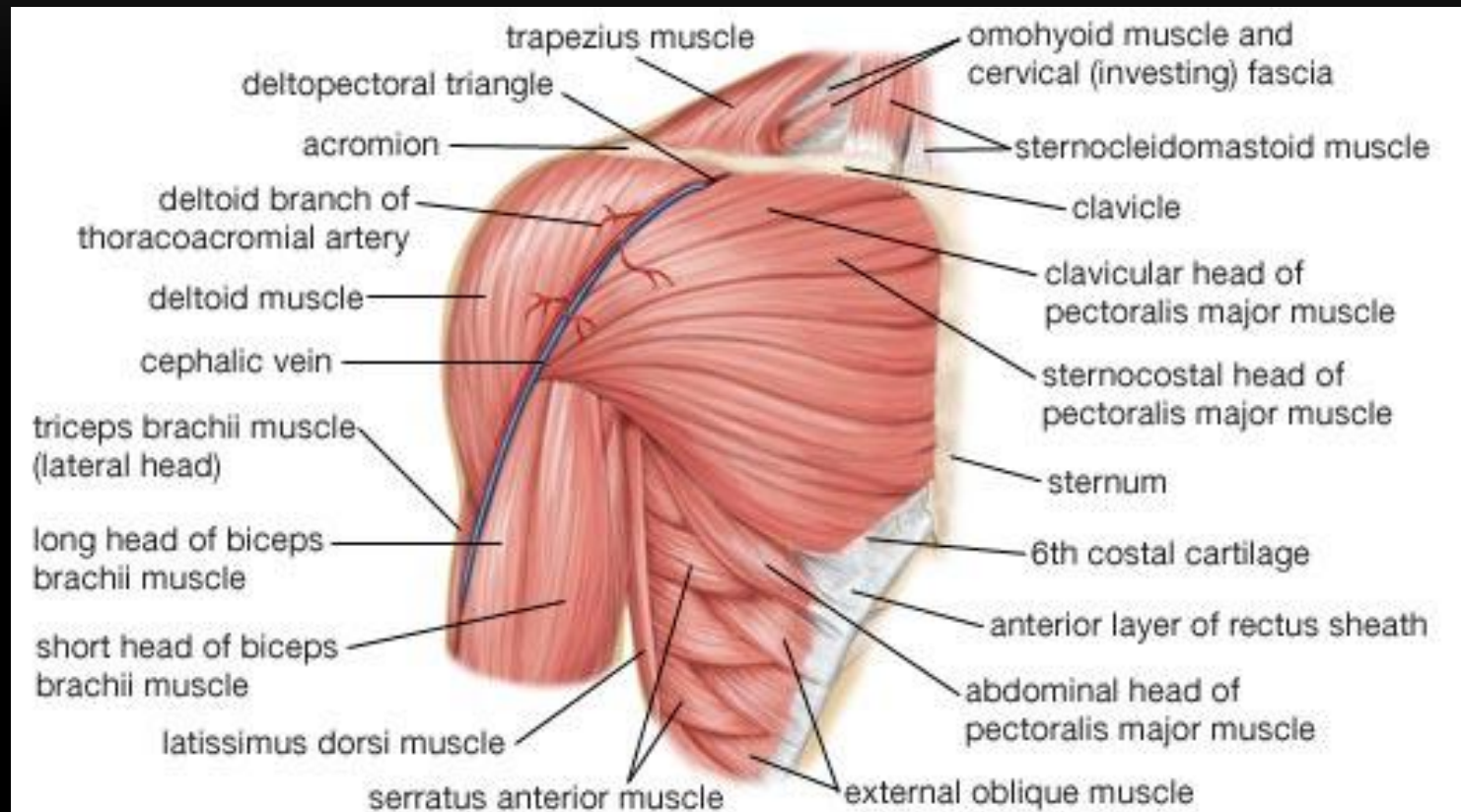
SHOULDER PATHOLOGY

- Primary Osteoarthritis
 - Traumatic Osteoarthritis
 - Inflammatory Osteoarthritis
 - Osteonecrosis
 - Capsulorrhaphy Induced Osteoarthritis
 - Rotator Cuff Arthropathy
-

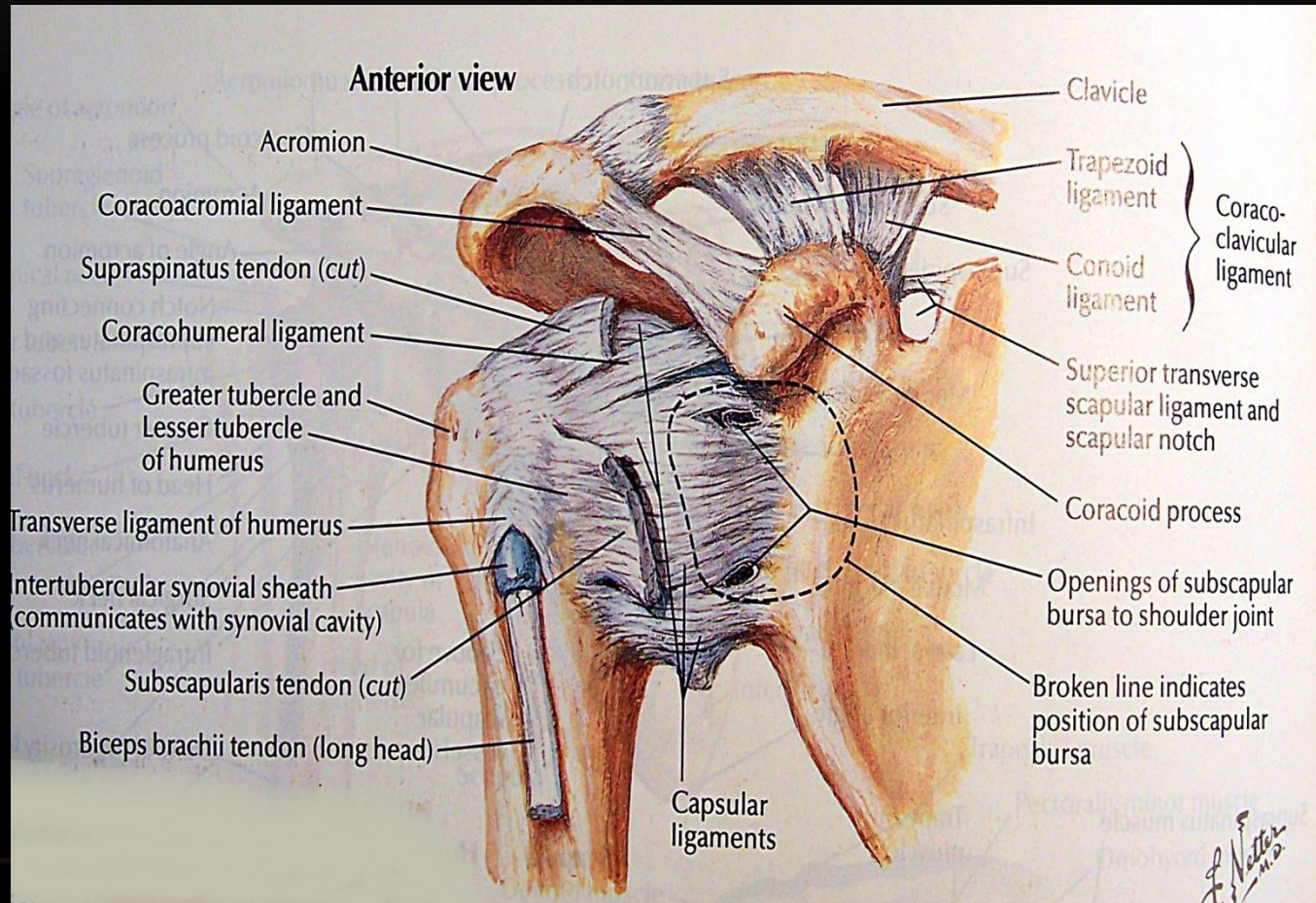
BONY ANATOMY



SOFT TISSUE ANATOMY



SOFT TISSUE ANATOMY

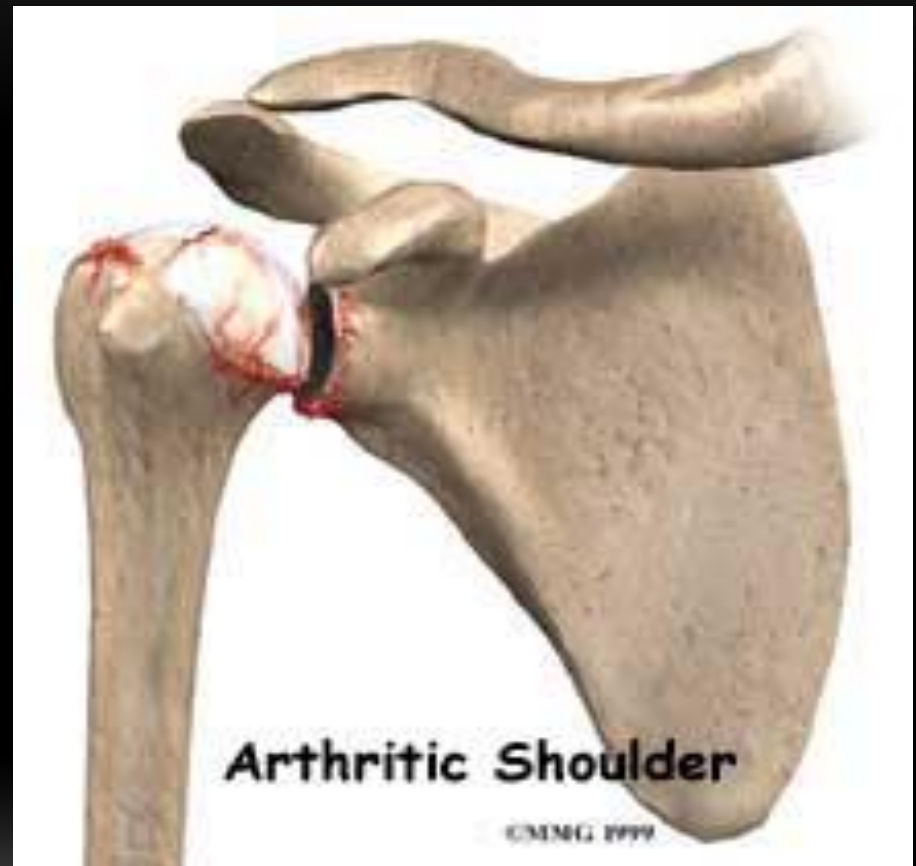


PRIMARY GLENOHUMERAL OSTEOARTHRITIS

- Insidious onset
- Painful arc of motion
- Dull pain ache
- Loss of external rotation
- Crepitus with ROM



LOSS OF ARTICULAR CARTILAGE









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PA-APR-5R1

Princess Anne

POSTTRAUMATIC ARTHRITIS

- Pathogenesis due to injury inflicted on articular cartilage
 - Multiple dislocations
 - Fall / Blunt trauma
- Clinical finding's similar to primary OA except usually younger

INFLAMMATORY ARTHRITIS

- Very similar to osteoarthritis
 - Have to consider how soft tissues are affected
 - May present at a younger age
-



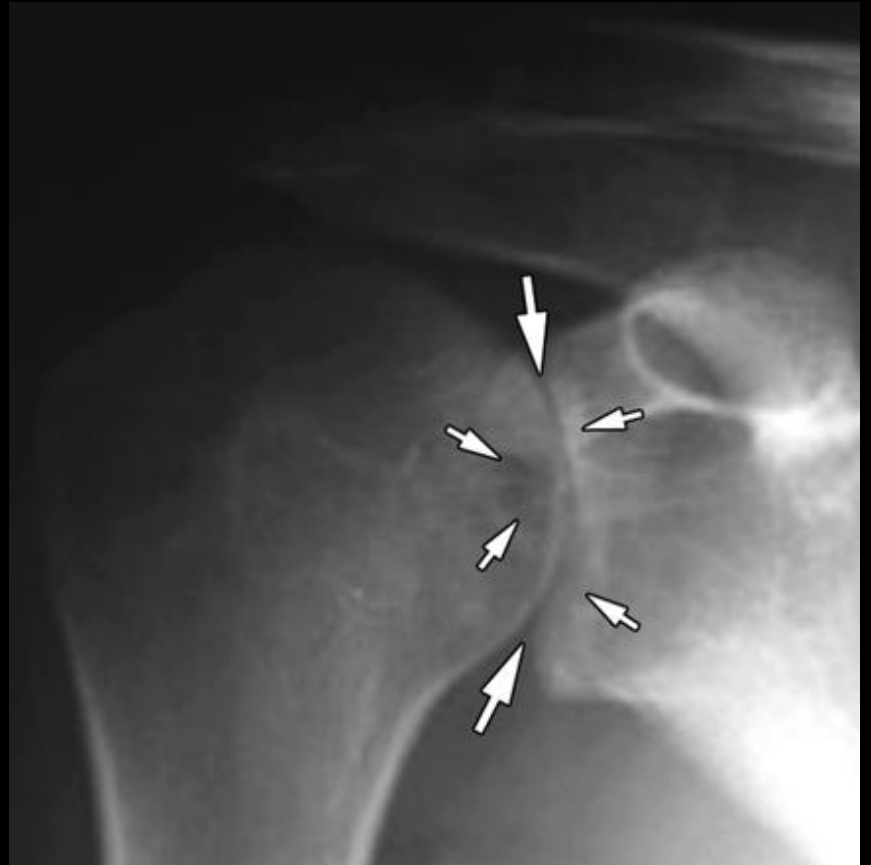
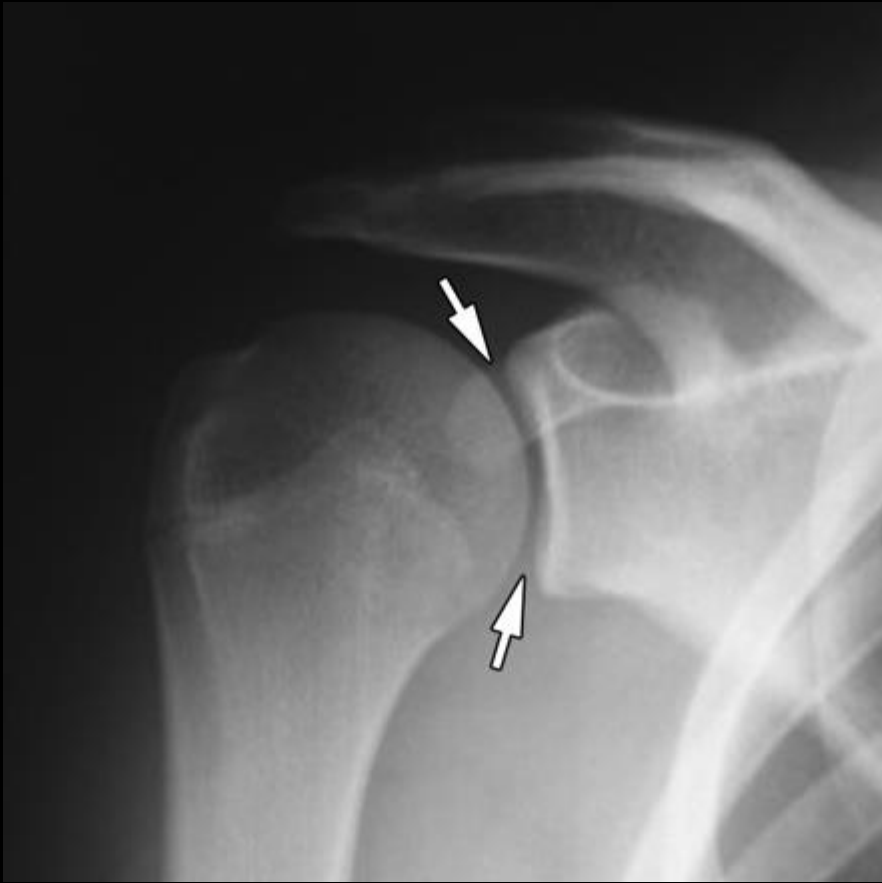
OSTEONECROSIS

- Loss of blood supply to humeral head
 - Leads to progressive collapse
 - Etiologies
 - Alcoholism
 - Steroid therapy
 - HIV
 - Decompression sickness
 - Deposition diseases
 - Gout
-



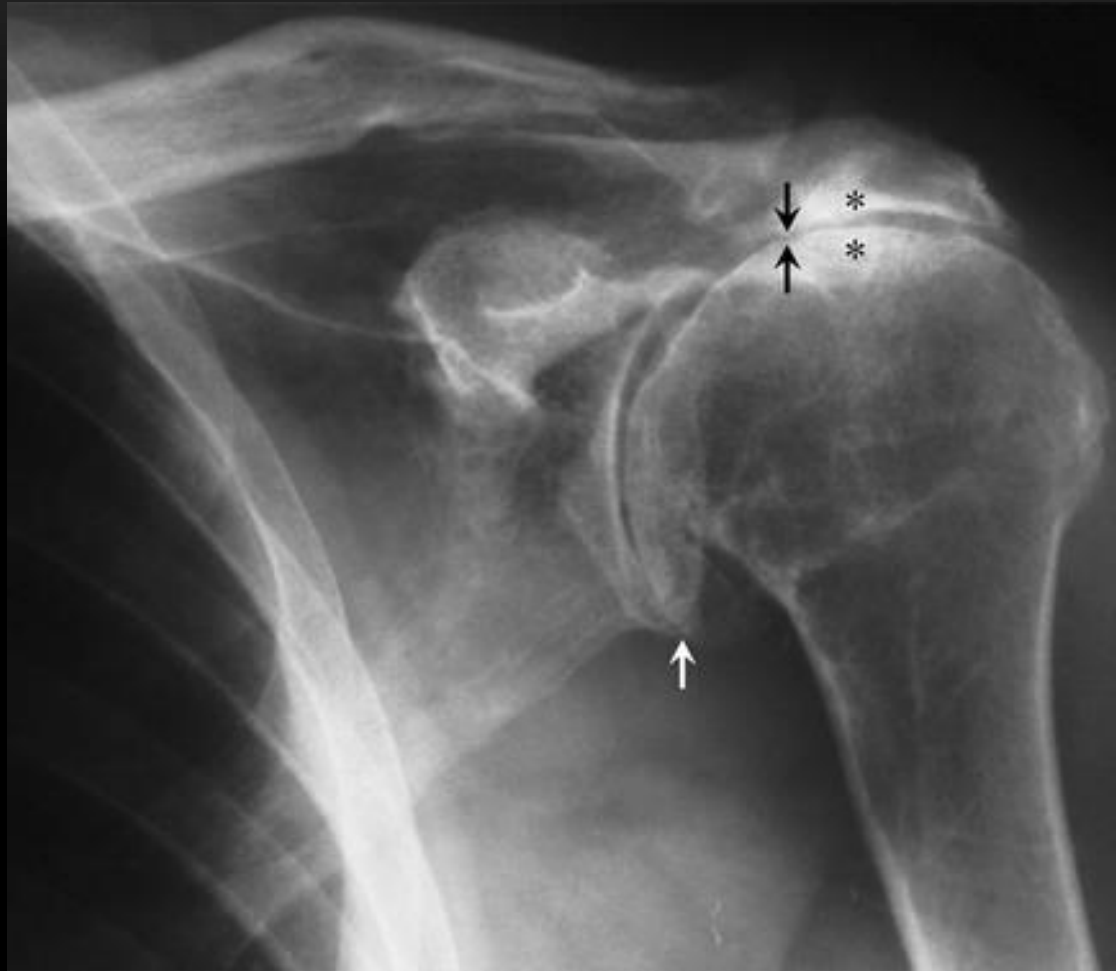


CAPSULORRHAPHY-INDUCED ARTHRITIS



ROTATOR CUFF TEAR ARTHROPATHY

- Massive rotator cuff tear
 - Humeral head elevation
 - Articular cartilage loss
 - Severe functional loss
-



TREATMENT OPTIONS

AGE AND FUNCTION DEPENDENT

- Nonsurgical
 - Rest
 - Anti-inflammatories
 - Injection
 - PT
 - Visco-supplementation
 - Surgical
 - Arthroscopic Debridement
 - Best for early OA with capsular contracture
 - Biologic resurfacing
 - Arthroplasty
-

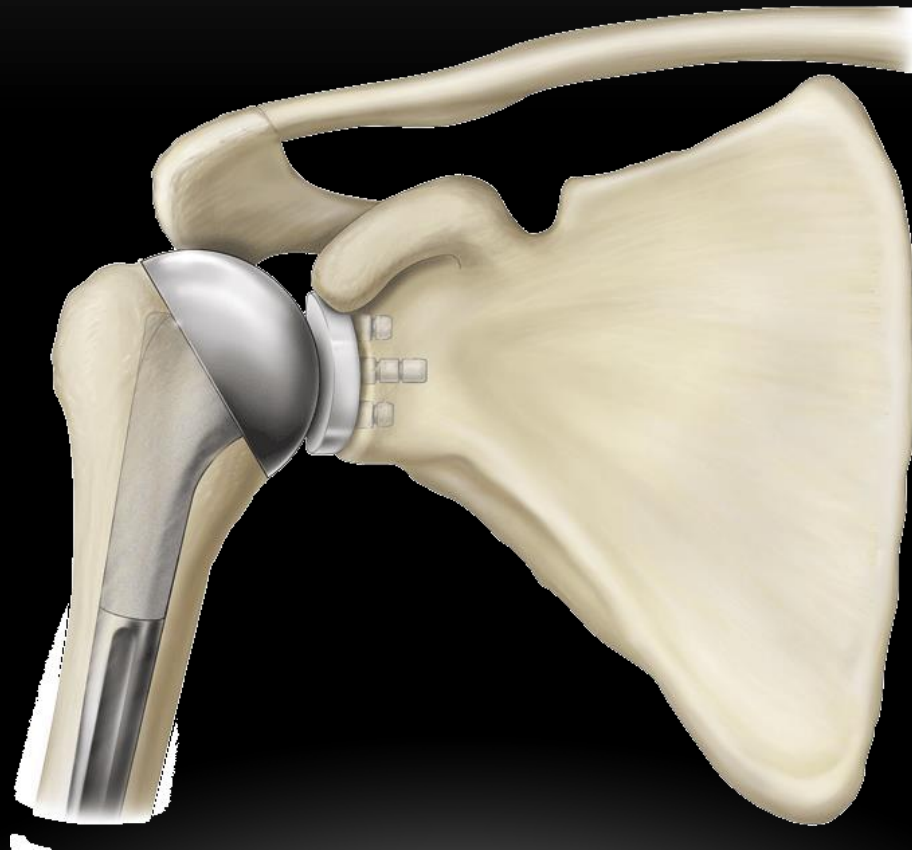
HUMERAL HEAD RESURFACING



HUMERAL HEAD RESURFACING



ANATOMIC TOTAL SHOULDER ARTHROPLASTY



PRIMARY TOTAL SHOULDER ARTHROPLASTY





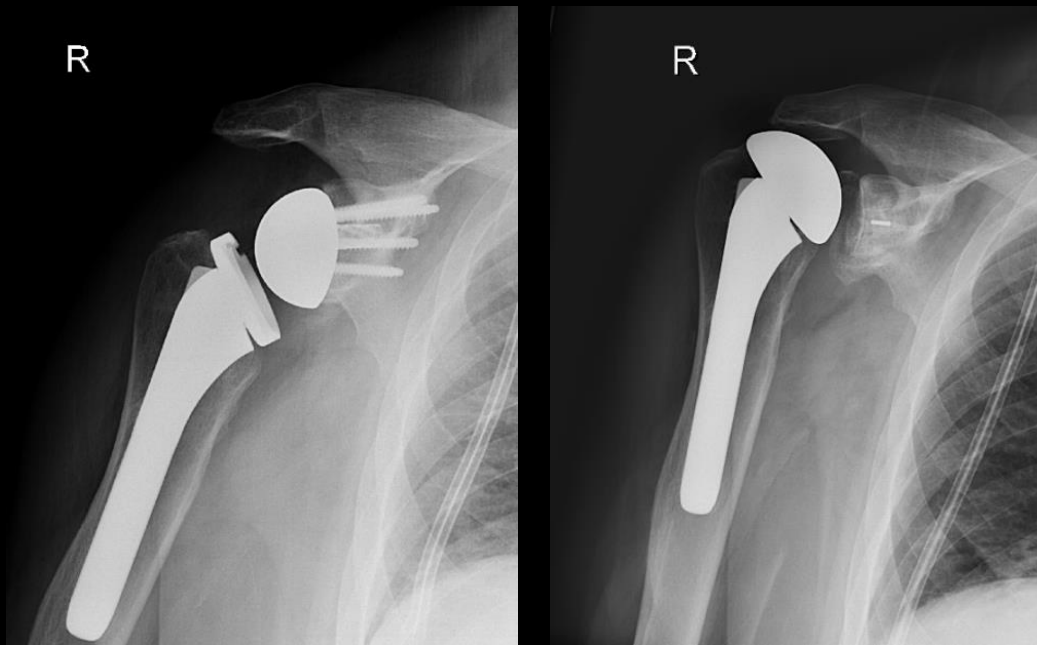
PRIMARY TOTAL SHOULDER ARTHROPLASTY



REVERSE TSA

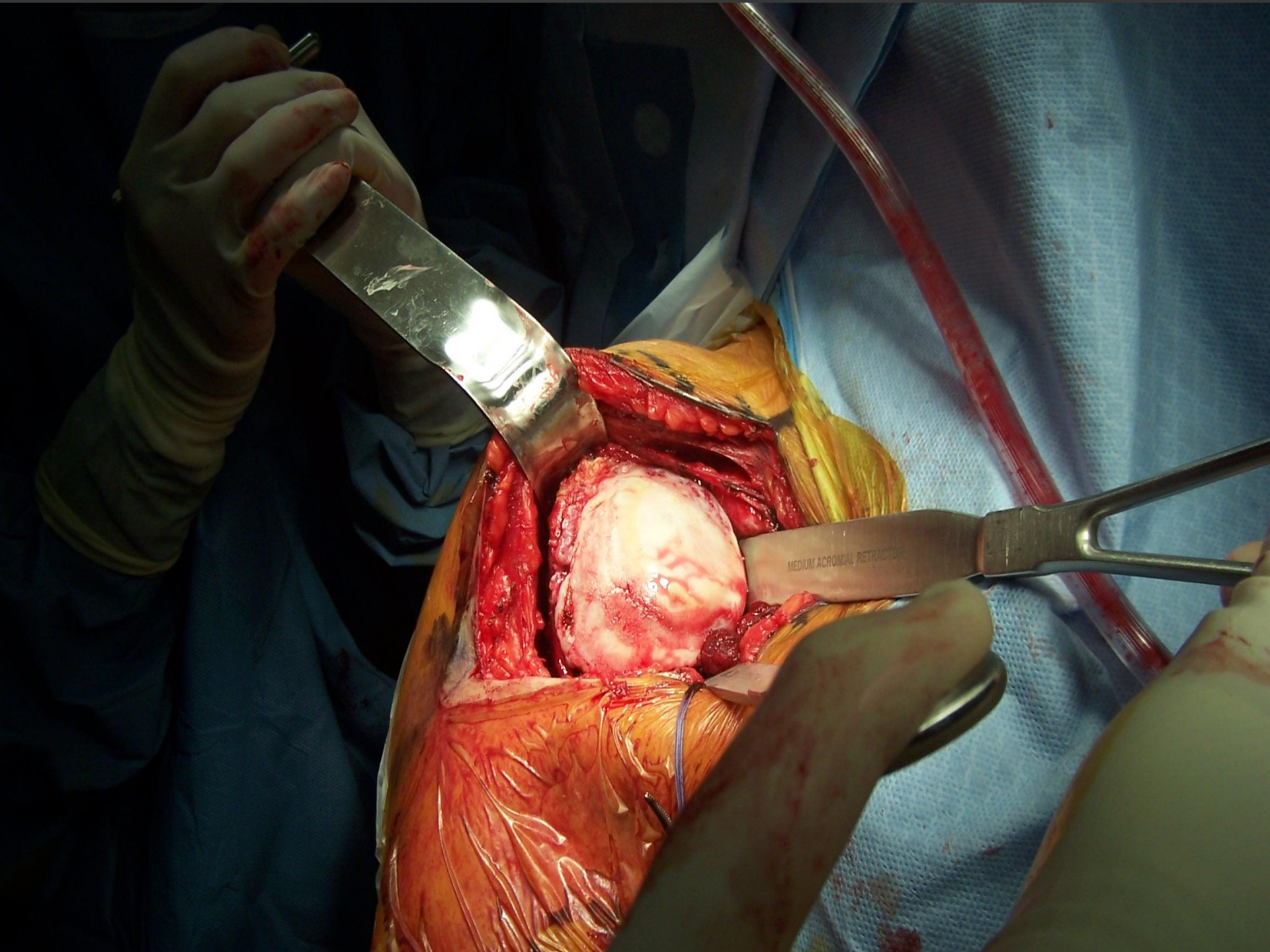
- Indications
 - Rotator Cuff Tear Arthropathy
 - Failed hemiarthroplasty / total shoulder
 - Expanded indications
 - Proximal humerus fractures
 - Nonunions
-

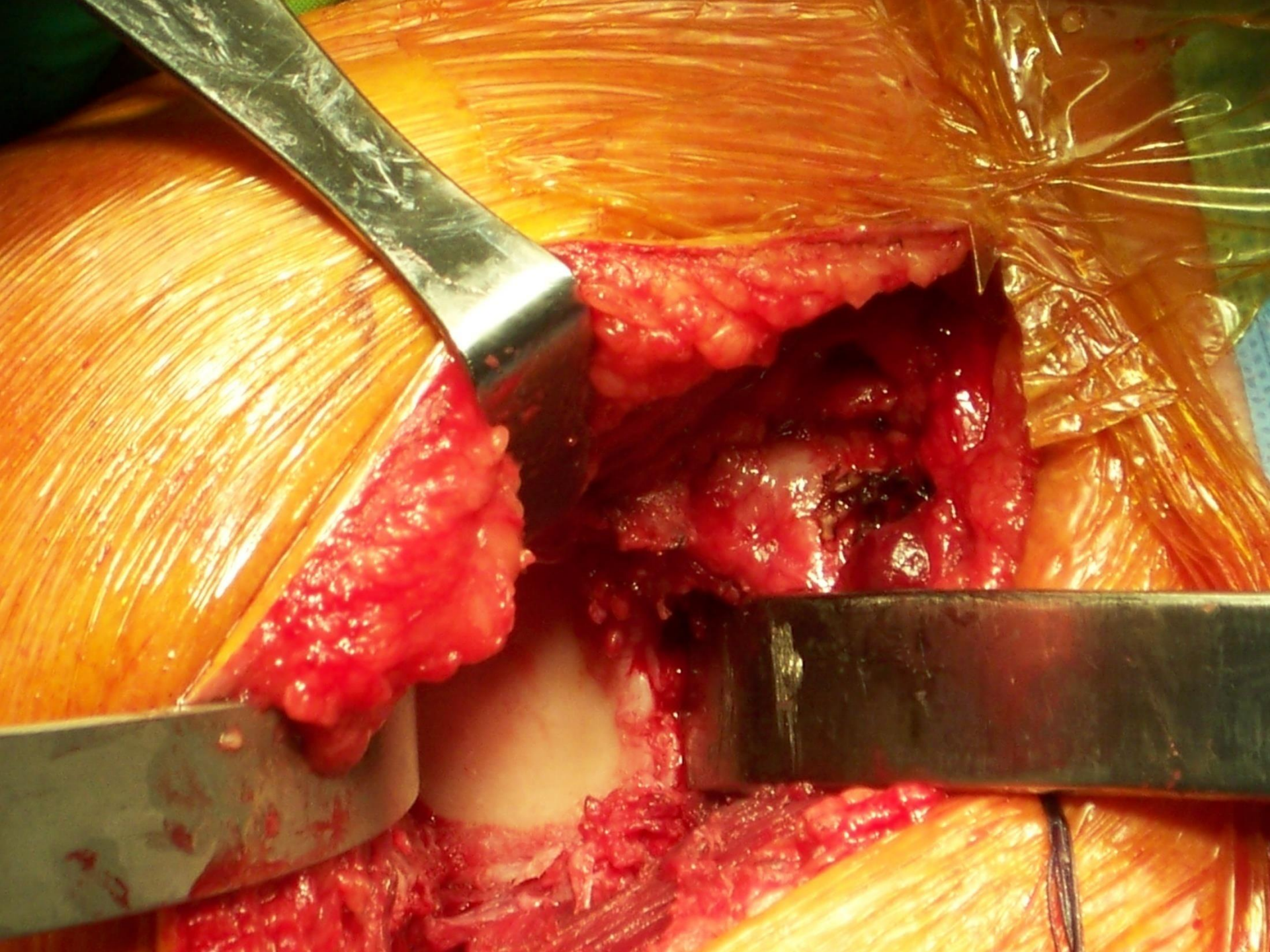
ONE STEM...TWO SOLUTIONS

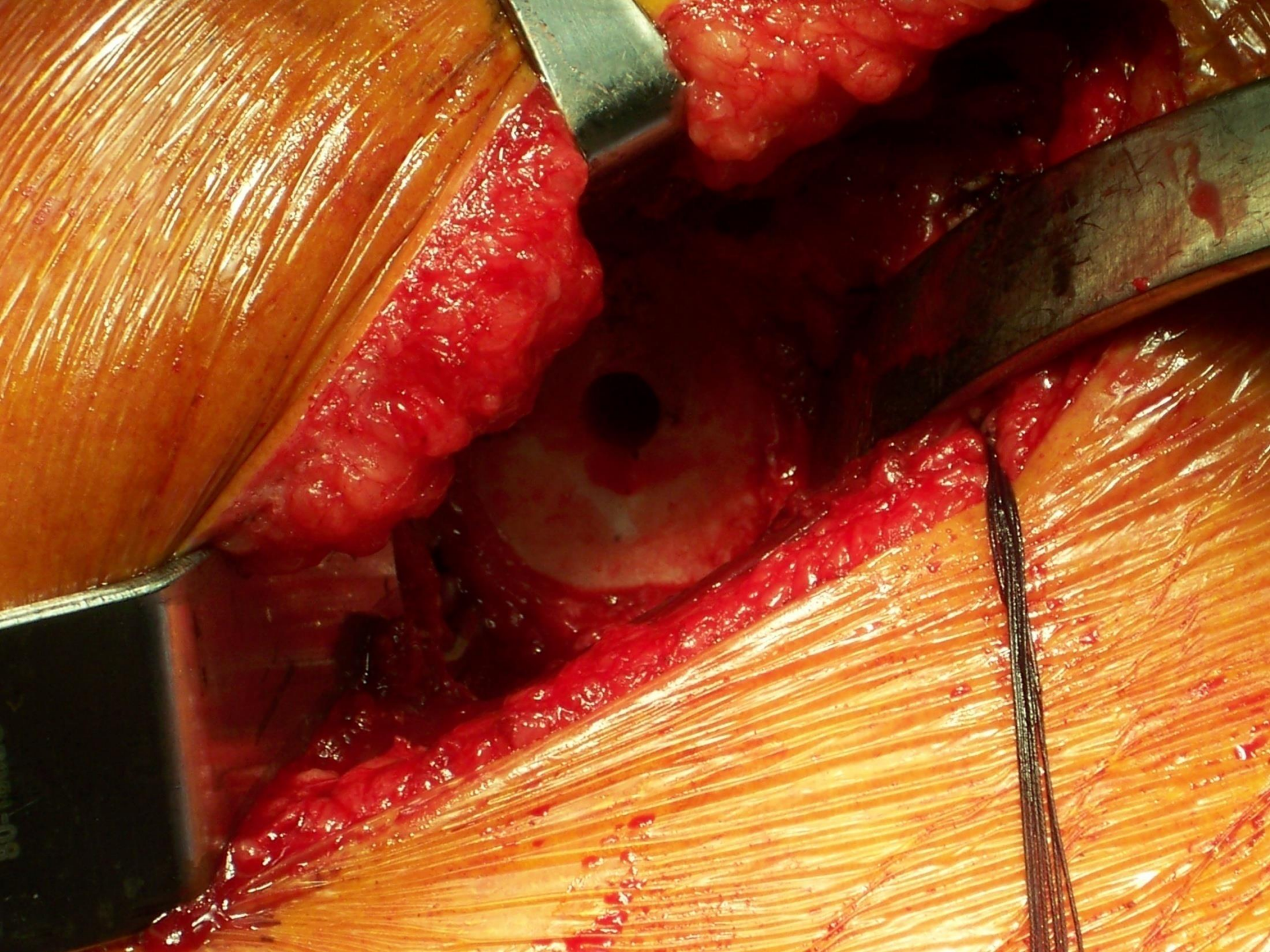


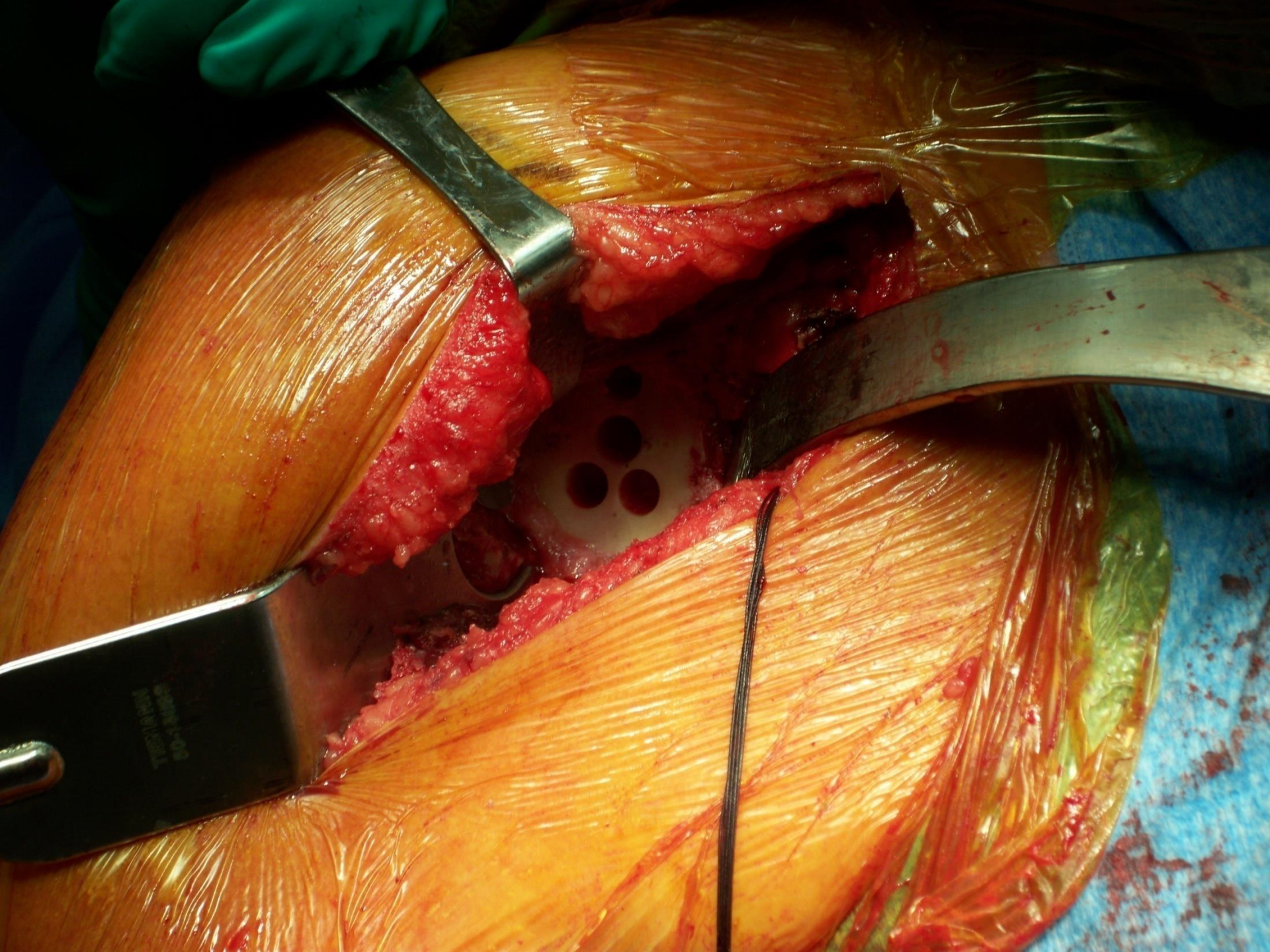
Patient with TSA was in an accident and had irreparable rotator cuff tear

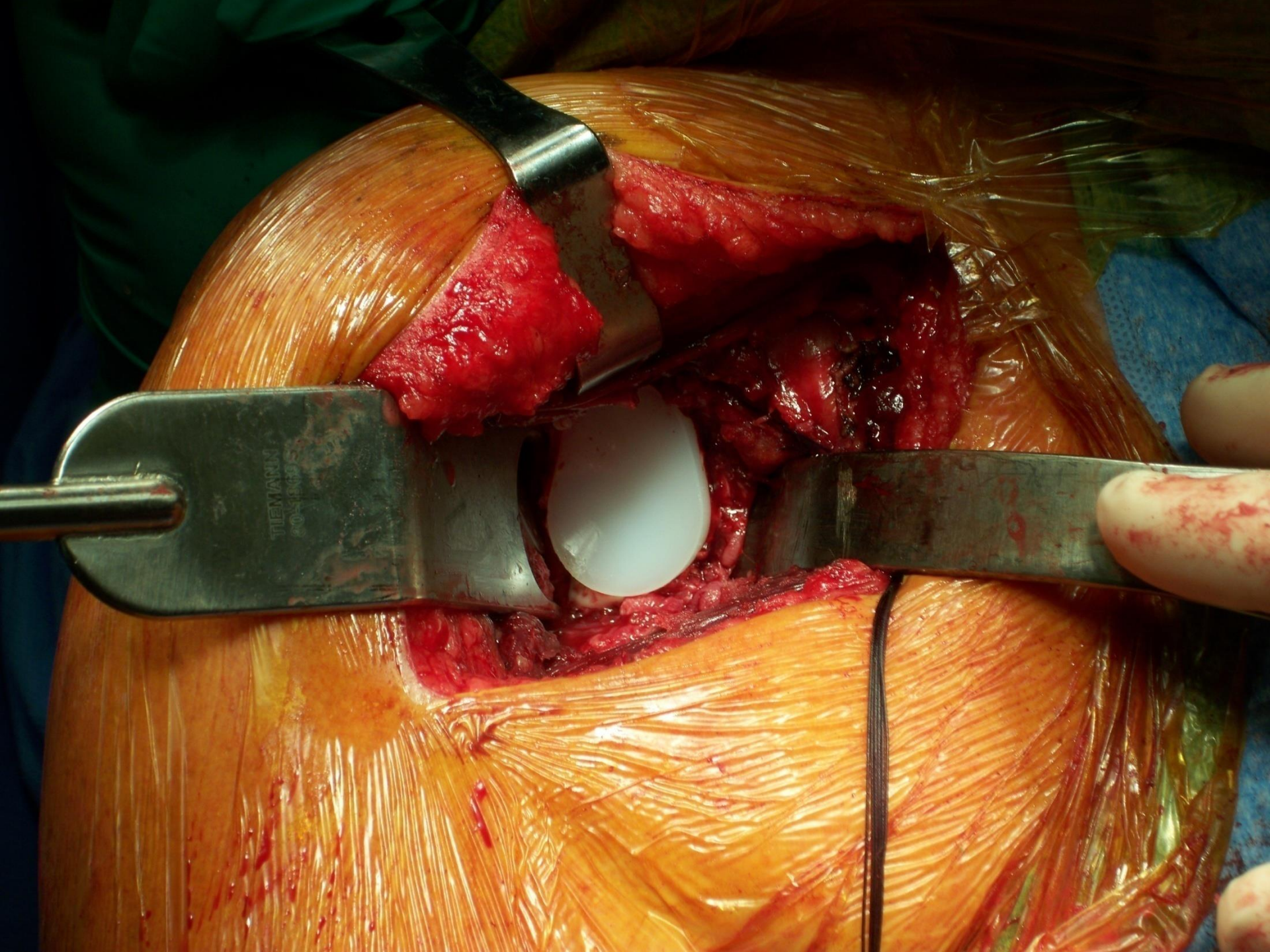
Ability to convert from a total shoulder to a reverse without having to remove the stem



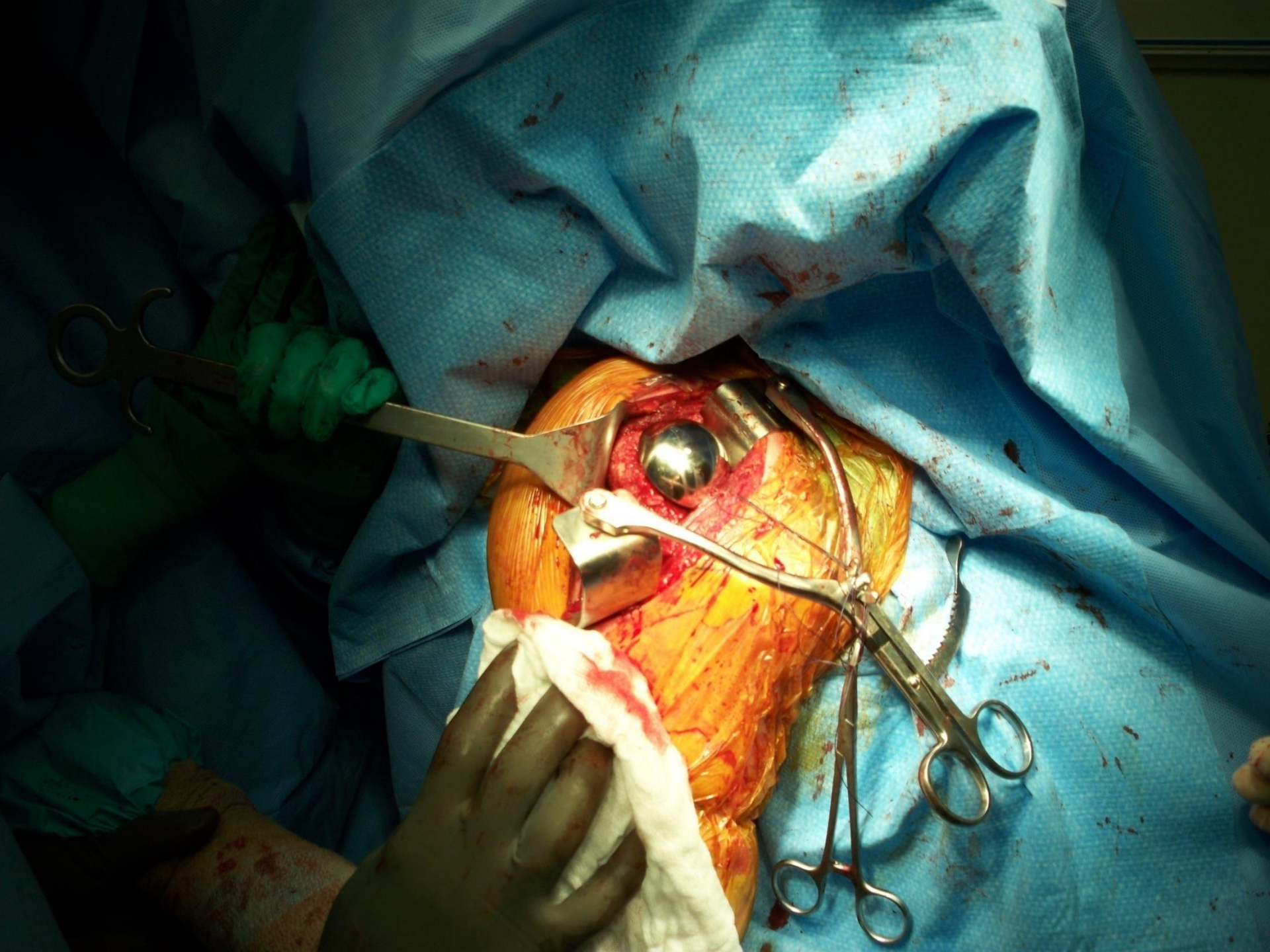








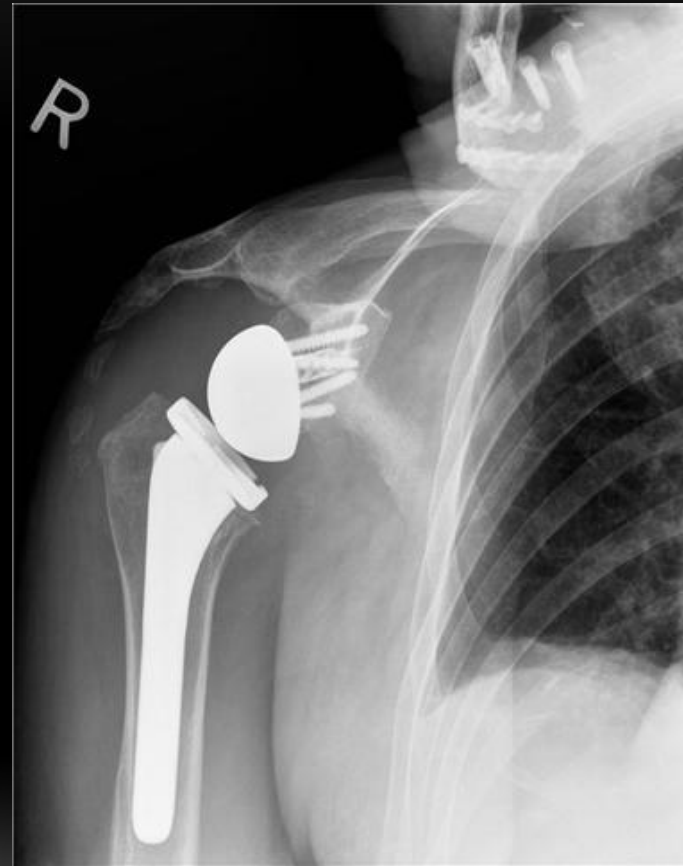


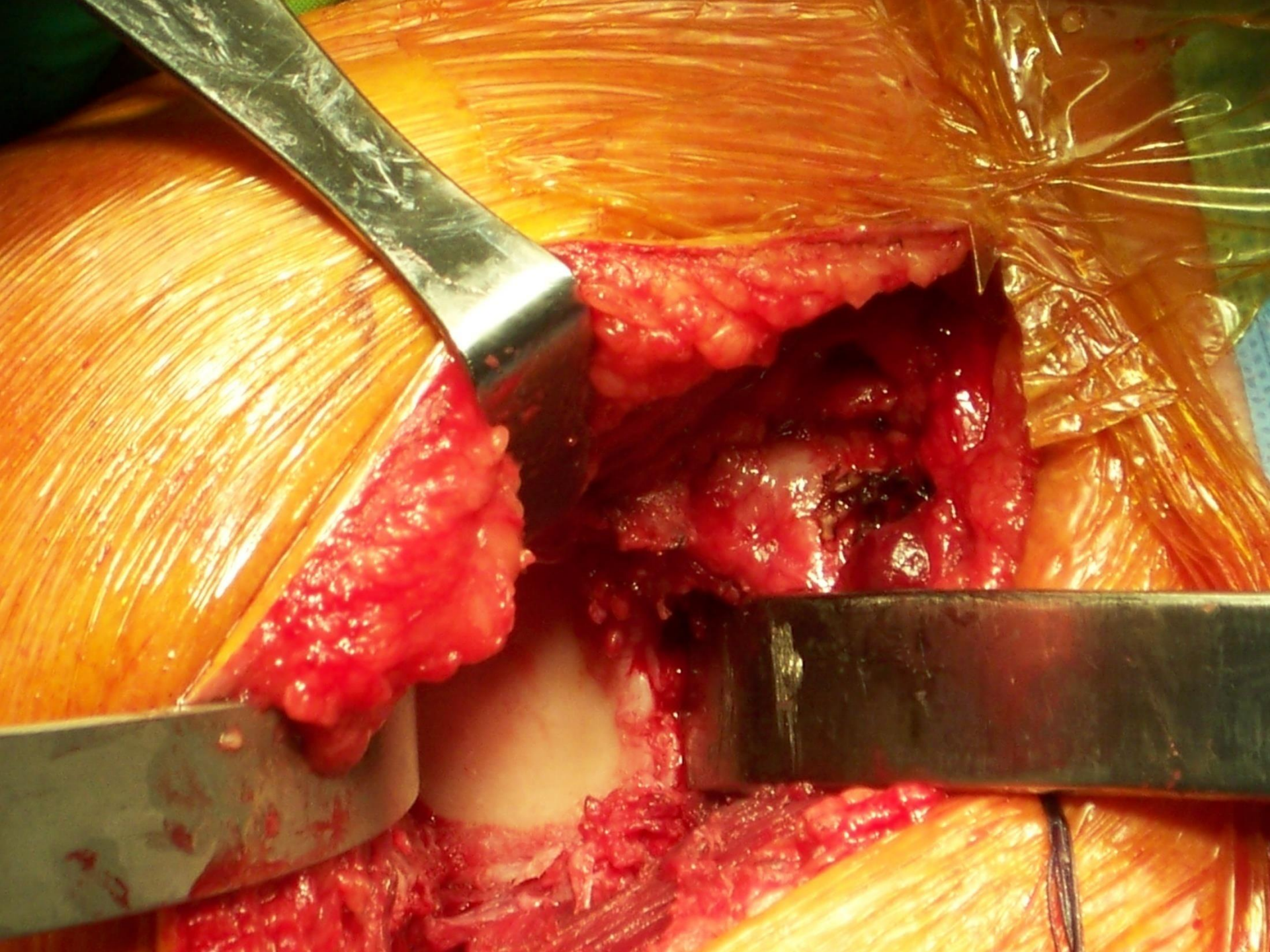


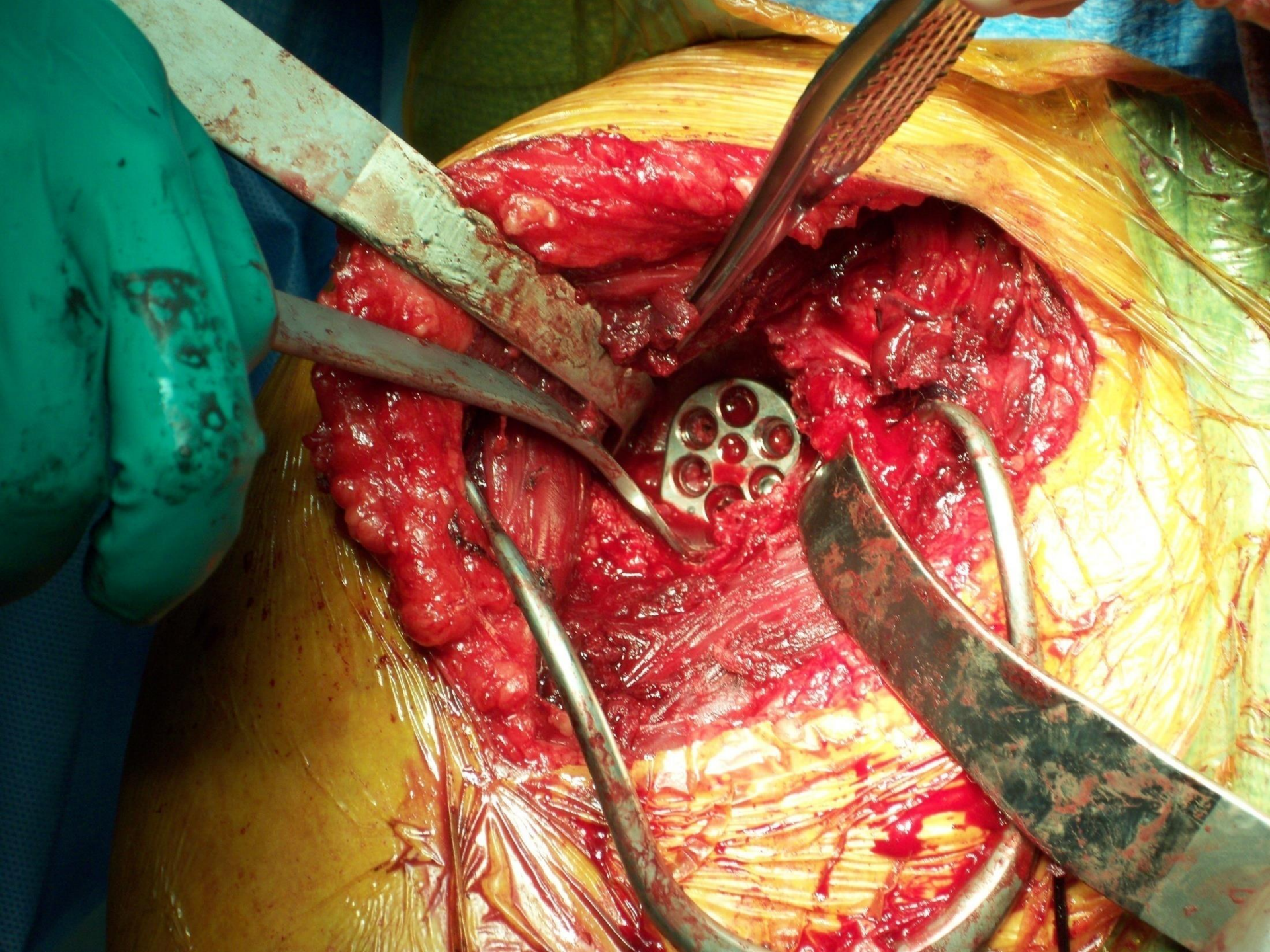
REVERSE TOTAL SHOULDER ARTHROPLASTY



REVERSE TOTAL SHOULDER ARTHROPLASTY







POST-OP PROTOCOL

- Primary TSA vs. Reverse?
 - Weeks 0-3
 - Shoulder Immobilizer
 - Ice
 - PROM / Pendulum
 - Weeks 3-6
 - AAROM
 - Pulley
 - Weeks 6-12
 - AROM
 - Strengthening
-

OUTCOMES

- National outcomes database
- Low vs. high volume surgeons
- Lower mortality and complications in HVS
- Better outcomes in HVS
- Shorter hospital stay in HVS

Jain N, *JBJS* 2004;86:496-505

NEXT GENERATION PLATFORM STEM

Equinoxe® Preserve stem

- Compatible with the Equinoxe shoulder system
- Designed to preserve distal humeral bone while also achieving optimal stability and fixation
- Focuses on anatomical replication
- Provides flexibility to choose between anatomic and reverse intraoperatively



equinoxe®
PLATFORM SHOULDER SYSTEM

● WHY GUIDED PERSONALIZED SURGERY?

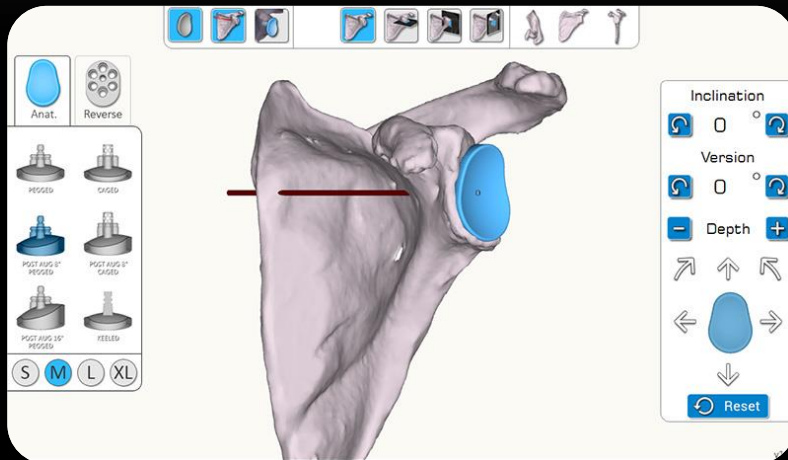
- Every shoulder is unique.
- ExactechGPS allows the surgeon to personalize the total shoulder replacement procedure based on the patient's own anatomy and function.



● WHY GUIDED PERSONALIZED SURGERY?

- Provides surgeons with real-time visual guidance in total shoulder surgery.
- Combines surgeon expertise with a computer system to perform your shoulder surgery with a goal of advanced accuracy and precision, allowing for simple adjustments and implant alignment personalized to your unique anatomy.

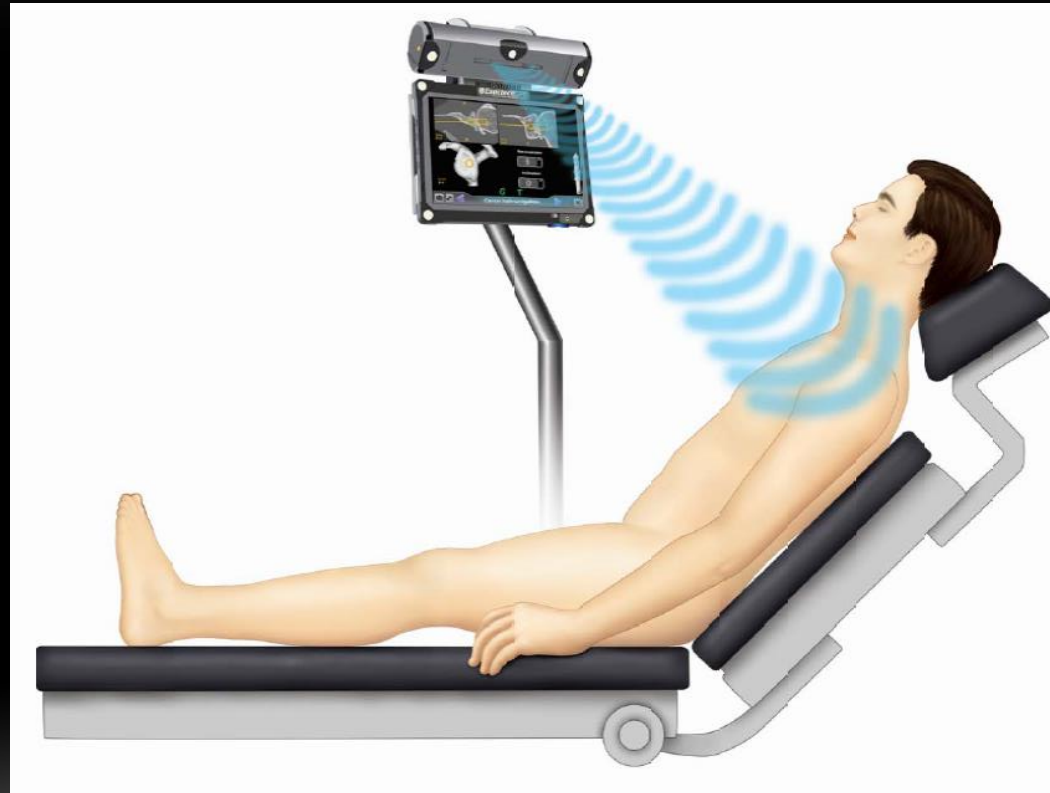
● HOW DOES IT WORK?



The ExactechGPS application's preoperative planning tool is designed to help surgeons understand their patient's anatomy prior to surgery and plan the surgery through a virtual simulation.

• HOW DOES IT WORK?

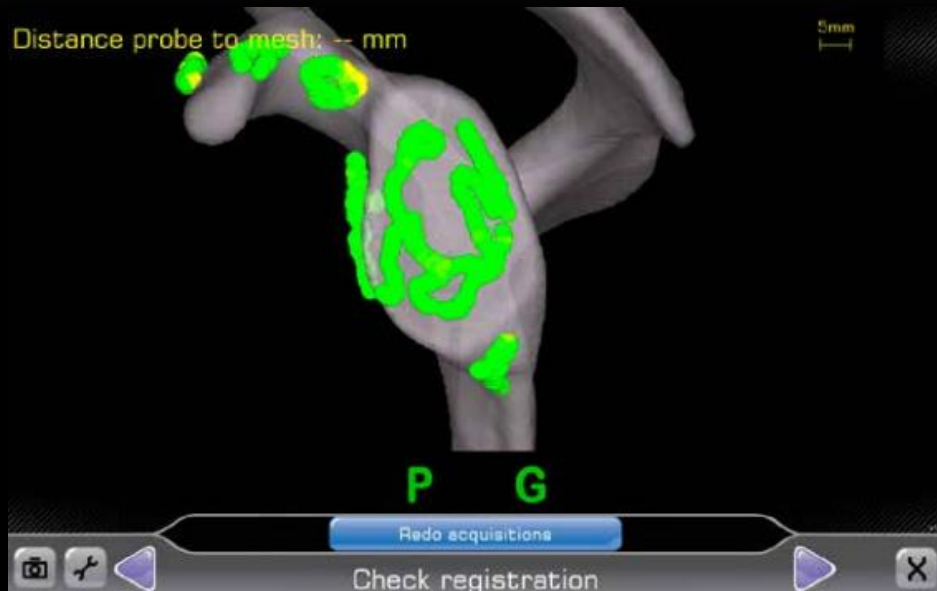
A touch screen display unit is attached next to the patient on the OR table.



● HOW DOES IT WORK?

During surgery, a tracker placed on the patient's bone sends data on the anatomical structure and joint movements to the computer.

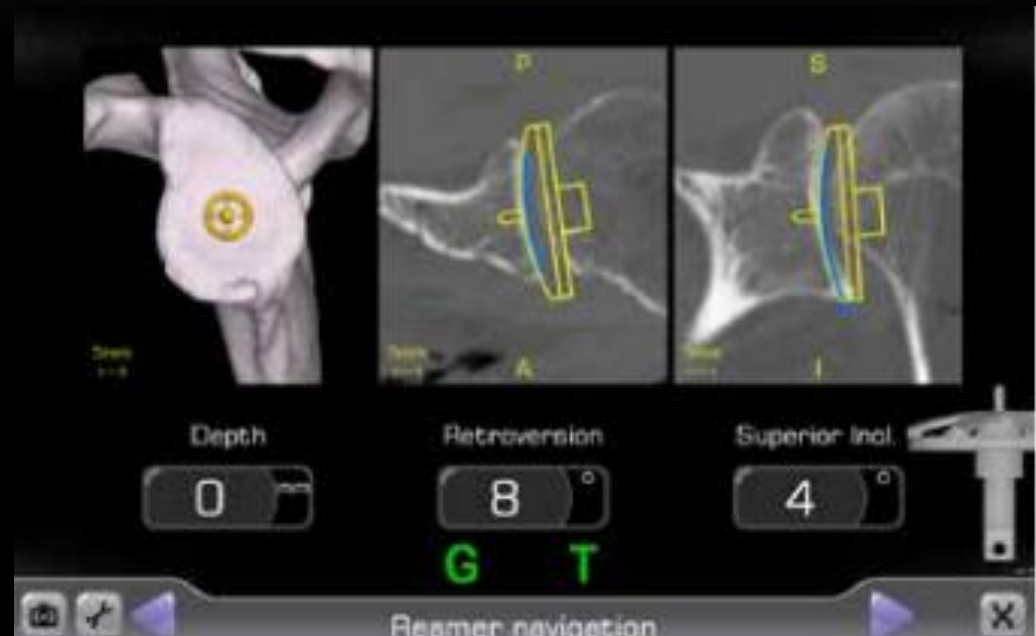
● HOW DOES IT WORK?

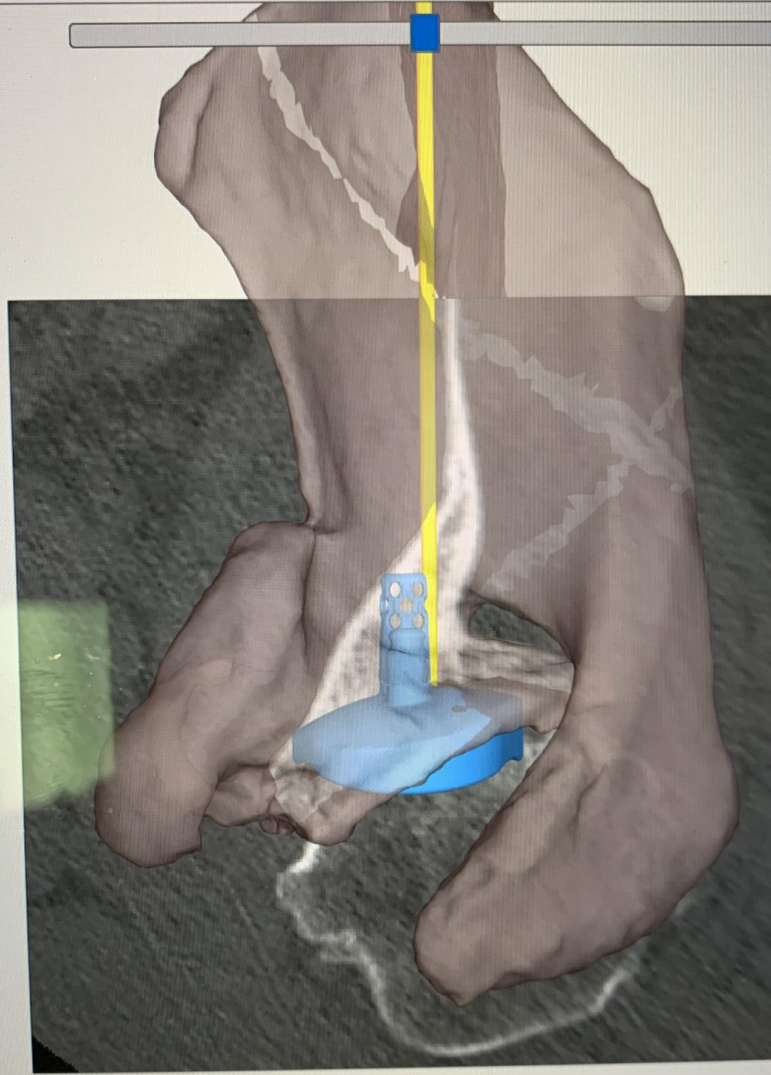


The computer analyzes the information it has gathered and displays the bone as a 3D model with calculated key measurements.

• HOW DOES IT WORK?

The images on the screen allow the surgeon to verify where to remove bone and appropriately place the implant.





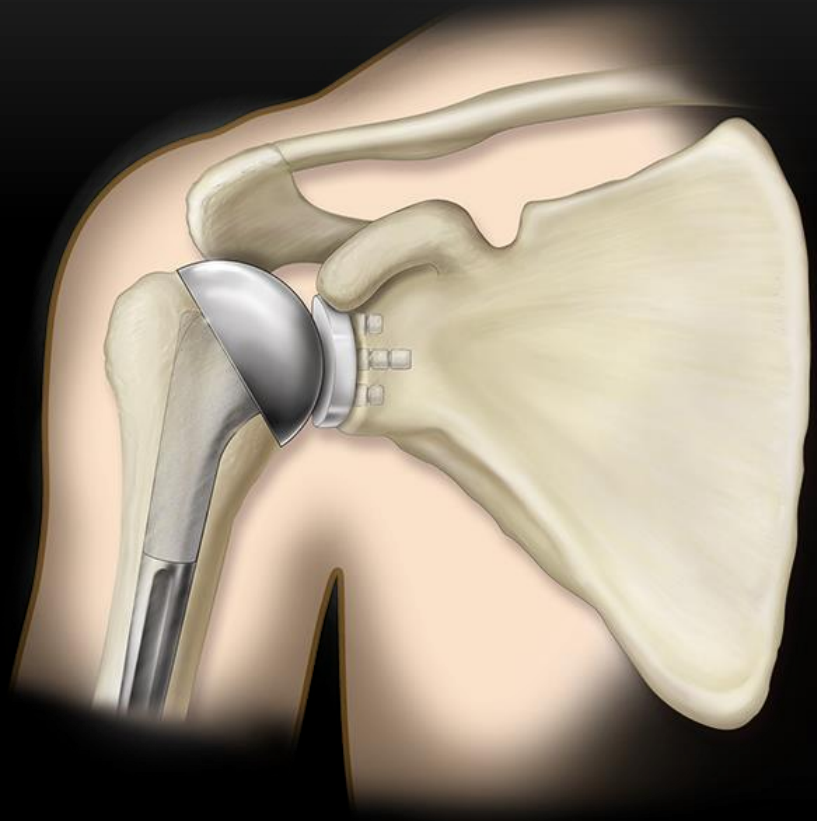
● BENEFITS

3D visuals and accurate measurements help with:

- Improved visibility of the shoulder joint
- Accurate placement of shoulder implant

● BENEFITS

Accurate placement and alignment of the implant components are critical to the overall longevity and function of the implant.



SUMMARY

- Many different causes of shoulder arthritis
- Multiple levels of treatment
- Treatment should match the patient
- Surgical reconstructions have limits

THANK YOU!!!

