

# Patella Fractures and Extensor Mechanism Disruption

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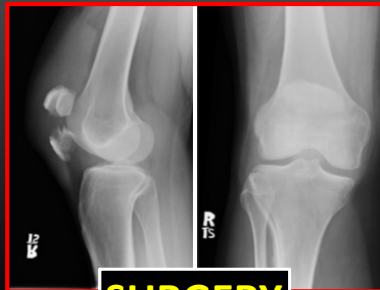
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## CASE #1

30 YO MALE FALL FROM LADDER

- INCOMPETENT EXTENSOR MECHANISM
- DISPLACED TRANSVERSE PATELLA FRACTURE



**SURGERY**

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## OPTIMAL SURGICAL PLAN IS:

1. PARTIAL PATELLECTOMY
2. ORIF WITH TENSION BAND
3. ORIF WITH SCREWS ALONE
4. ORIF WITH SCREWS AUGMENTED WITH "TENSION CONSTRUCT"



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POLL OPEN

Optimal surgical plan is:

1. DORSAL CORTICAL READ  
0%
2. FLUROSCOPY  
0%
3. VISUALIZED ARTICULAR REDUCTION  
0%
4. ALL OF THE ABOVE  
100%

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**OPTIMAL SURGICAL PLAN IS:**

- ~~1. PARTIAL MENISCECTOMY~~
- ~~2. ORIF WITH TENSION BAND~~
- ~~3. ORIF WITH SCREWS ALONE~~
4. ORIF WITH SCREWS AUGMENTED BY "TENSION CONSTRUCT"



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**REDUCTION OF THIS ARTICULAR FRACTURE IS BEST GAUGED BY:**

1. DORSAL CORTICAL READ
2. FLUROSCOPY
3. VISUALIZED ARTICULAR REDUCTION
4. ALL OF THE ABOVE



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POLL OPEN

Reduction of this articular fracture is best gauged by:

1. DORSAL CORTICAL READ  
0%
2. FLUROSCOPY  
3.45%
3. VISUALIZED ARTICULAR REDUCTION  
20.69%
4. ALL OF THE ABOVE  
75.86%

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**MY PREFERRED SURGICAL TECHNIQUE**

IN PRESS, JOT

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**FINAL INTRAOPERATIVE IMAGES**

SCREW LENGTH

SCREW POSITION

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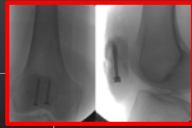
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### MOST APPROPRIATE REHAB PROTOCOL

1. CASTED IN EXTENSION, WBAT
2. CASTED IN EXTENSION, NWB
3. WBAT IN KNEE IMMOBILIZER, PROTECTED ROM
4. KNEE IMMOBILIZER, NWB, PROTECTED ROM




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POLL OPEN

### Most appropriate rehab protocol:

1. CASTED IN EXTENSION, WBAT  
3.45%
2. CASTED IN EXTENSION, NWB  
6.9%
3. WBAT IN KNEE IMMOBILIZER, PROTECTED ROM  
86.21%
4. KNEE IMMOBILIZER, NWB, PROTECTED ROM  
3.45%

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### MY PROTOCOL

3 MONTH RADIOGRAPH

WBAT LOCKED IN EXTENSION (IMMOBILIZER)

- EARLY PROTECTED ROM
- ACTIVE FLEXION
  - PASSIVE EXTENSION

- GOAL > 90 DEGREES FLEXION BY 6 WKS




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# CASE #2

74 YO FEMALE , GLF

TRANSVERSE PATELLA FRACTURE  
• NO COMMINATION

INCOMPETENT EXTENSOR



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## BEST TREATMENT OPTION IS:

- 1.CLOSED MANAGEMENT WITH EXTENSION CASTING
- 2.ORIF WITH TECHNIQUE OF CHOICE
- 3.REVISION OF PATELLAR BUTTON
- 4.PATELLECTOMY



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POLL OPEN

Best treatment option is:

1. CLOSED MANAGEMENT WITH EXTENSION CASTING  
0%
2. ORIF WITH TECHNIQUE OF CHOICE  
89.47%
3. REVISION OF PATELLAR BUTTON  
10.53%
4. PATELLECTOMY  
0%

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2 WK POST OPERATIVE X -RAY

WAS THIS A GOOD CHOICE OF FIXATION FOR THIS TRANSVERSE FRACTURE PATTERN?

1.YES  
2.NO



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WAS THIS A GOOD CHOICE OF FIXATION FOR THIS TRANSVERSE FRACTURE PATTERN? POLL OPEN

1. Yes 54.17%

2. No 45.83%

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**TENSION BAND MECHANICS**

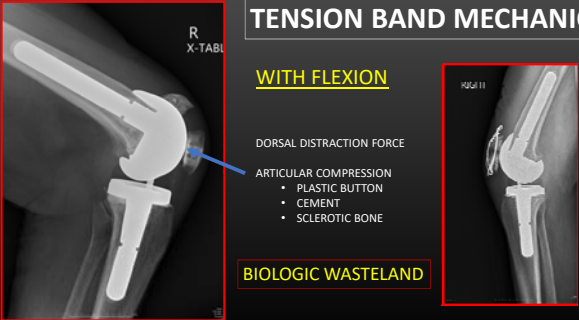
**WITH FLEXION**

DORSAL DISTRACTION FORCE

ARTICULAR COMPRESSION

- PLASTIC BUTTON
- CEMENT
- SCLEROTIC BONE

**BIOLOGIC WASTELAND**



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6 WK FOLLOW UP- NO TRAUMA

**INCOMPETANT EXTENSOR WITH 30 DEGREE EXTENSOR LAG: TREATMENT?**

1. NON OPERATIVE
2. PATELLECTOMY
3. REVISION ORIF
4. EXTENSOR ALLOGRAFT



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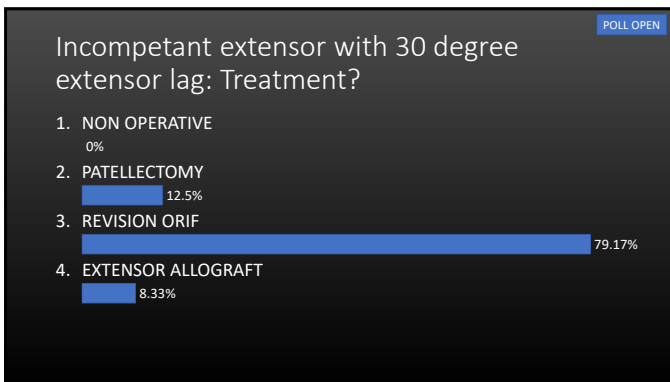
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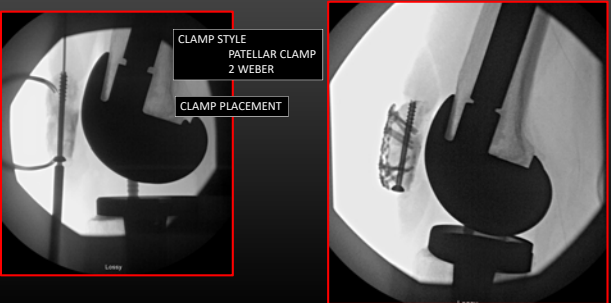
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CLAMP REDUCTION

DORSAL TENSION PLATE

CLAMP STYLE  
PATELLAR CLAMP  
2 WEBER

CLAMP PLACEMENT



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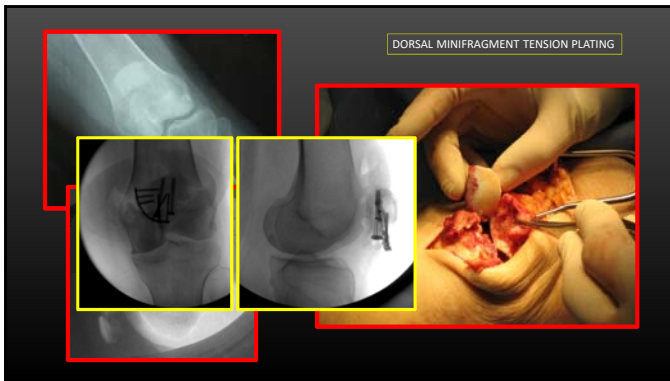
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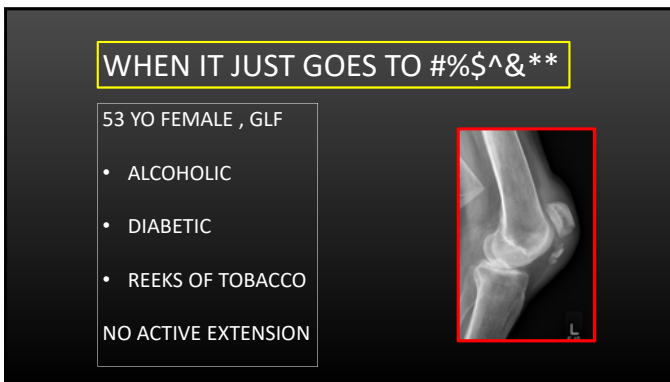
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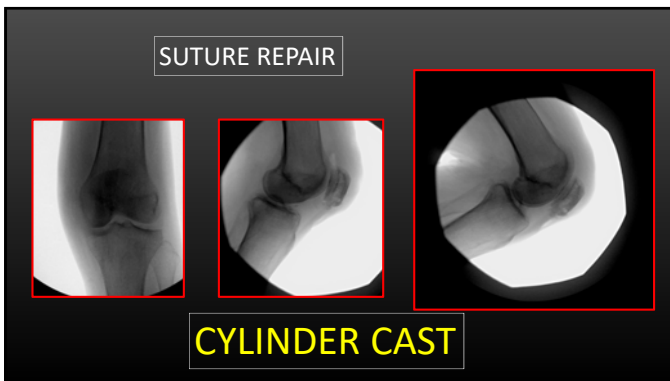
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WITHIN 2 WKS DEVELOPED FULL THICKNESS ULCER OVER ACHILLES  
HAD HER FRIEND CUT OFF THE CAST  
AND MOVED TO TENNESSEE WHERE PEOPLE COULD HELP HER

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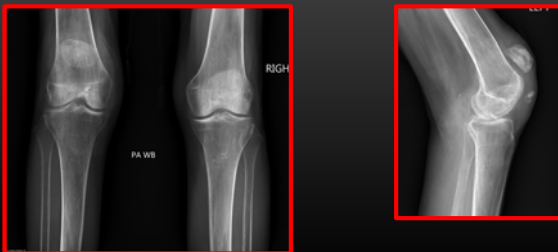
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8 MONTHS LATER  
NO ACTIVE EXTENSION



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BEST SURGICAL OPTION FOR **CHRONIC** EXTENSOR DISRUPTION

- 1. PATELLECTOMY
- 2. ARTHRODESIS
- 3. PRIMARY REPAIR
- 4. REPAIR WITH TISSUE AUGMENTATION



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POLL OPEN

Best surgical option for chronic extensor disruption:

1. PATELLECTOMY
2. ARTHRODESIS
3. PRIMARY REPAIR
4. REPAIR WITH TISSUE AUGMENTATION

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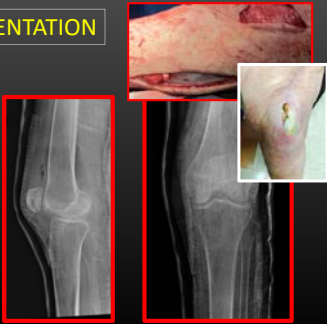
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REPAIR WITH TISSUE AUGMENTATION

**AUTOGRAFT**  
**ALLOGRAFT**  
**SYNTHETIC**

OPEN ENDED TENDON HARVESTER

- SEMITENDINOSIS
- GRACILIS



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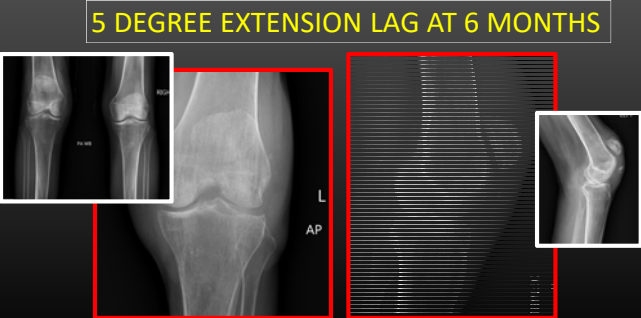
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5 DEGREE EXTENSION LAG AT 6 MONTHS



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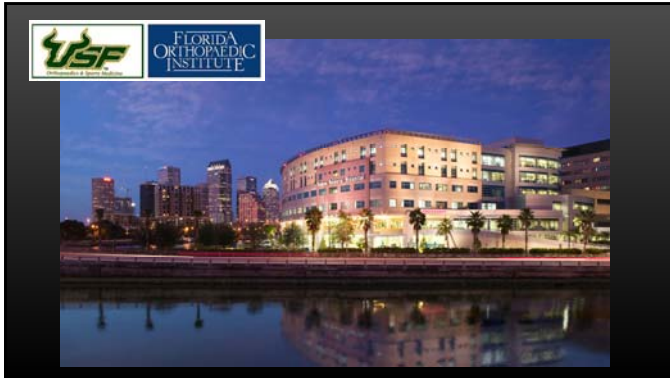
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