

# How I select surgical treatment for CCL disease

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My subjective 2 cents  
worth...

# Surgical Vs Non-Surgical

- **Recommendations**
  - **Diagnosis-driven?**
  - **Patient –driven?**
- **Client Concerns**
  - **Cost**
  - **Aversion to surgery**
  - **Personal reasons**

# Consensus?

- No one technique is universally accepted
- Ligament replacement and osteoarthritis control not possible on a consistent basis
- Recommendations
  - Experience
  - Personal preference
  - Last case that didn't do well??!

# What is Success?

- Limb use
- Pain
- Osteoarthritis?
  - Objective assessments usually lacking
- Happy Client?...using the leg is ok, not using the leg is easy to see

# What is success?

- Dogs are “good” candidates for what we do because..
    - They are quadripeds
    - Doctor –client-patient relationship
      - Client does not “feel” the pain and decisions can be driven by emotion
- ...more research would be a good thing

# Client communication: What is the “truth”?

- No ligament replacement
- Many types of repairs
  - Surgeons could counter argue other's recommendations
- Arthritis control?
- Can make general statements regarding limb use
- CCL disease common...ignoring it not the best option

# What I believe

- If non weight-bearing > 2 weeks
  - or chronic/recurrent, 2-3 months
- ..... surgery is good idea
- Not all patients need surgery

Recovery is inherently long with suture repairs

- 3-6 months
- Better than 70% limb use by 6 mo post op is acceptable

# What I believe

- Osteotomies can provide faster initial limb use
- Successful management involves accepting imperfection as par for the course: biological variation
- Over- aggressive re-operation leads to negative returns..
  - “Cells make or break us!!”

**Meniscus is a barrier to cure:  
“Is cruciate disease a meniscal  
injury waiting to happen?”**





# Considerations in deciding on procedure

- **Client compliance**
  - **Leash walks/ rehab**
    - Multiple dogs
    - Off leash activity
  - **Don't talk people into surgery**
  - **Most clients present pet when:**
    - Non weight bearing or 2-3 mo duration

# Breed

- Well muscled dogs rehab well
- Rottweillers
  - Tibial slope
- Chondrodystrophied dogs



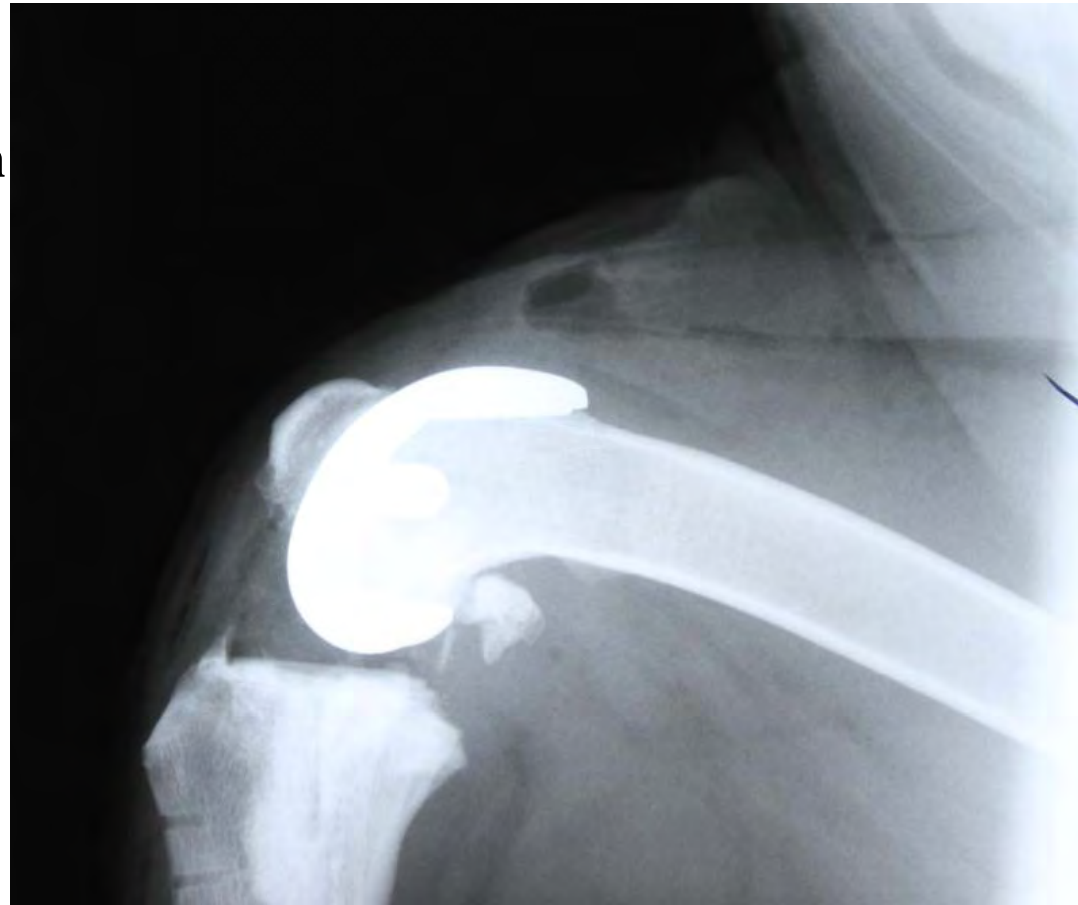
# Body Condition

- Overweight dogs rehab faster
- Thin dogs can be problematic with extracapsular repairs especially if suture is very tight
- Other orthopedic issues
- Age.. How old is too old?



# Severity of osteoarthritis

- Subjective
- Radiographs show less than really there
- Knee replacement



# Body Size.. 2 days post op TTA



Bathroom scales give subjective assessments that can help



# St Bernard 9 mo post op TTA (Left)





# A “tail” of 2 extracapsular repairs..

Rottweiler 1 yr post op

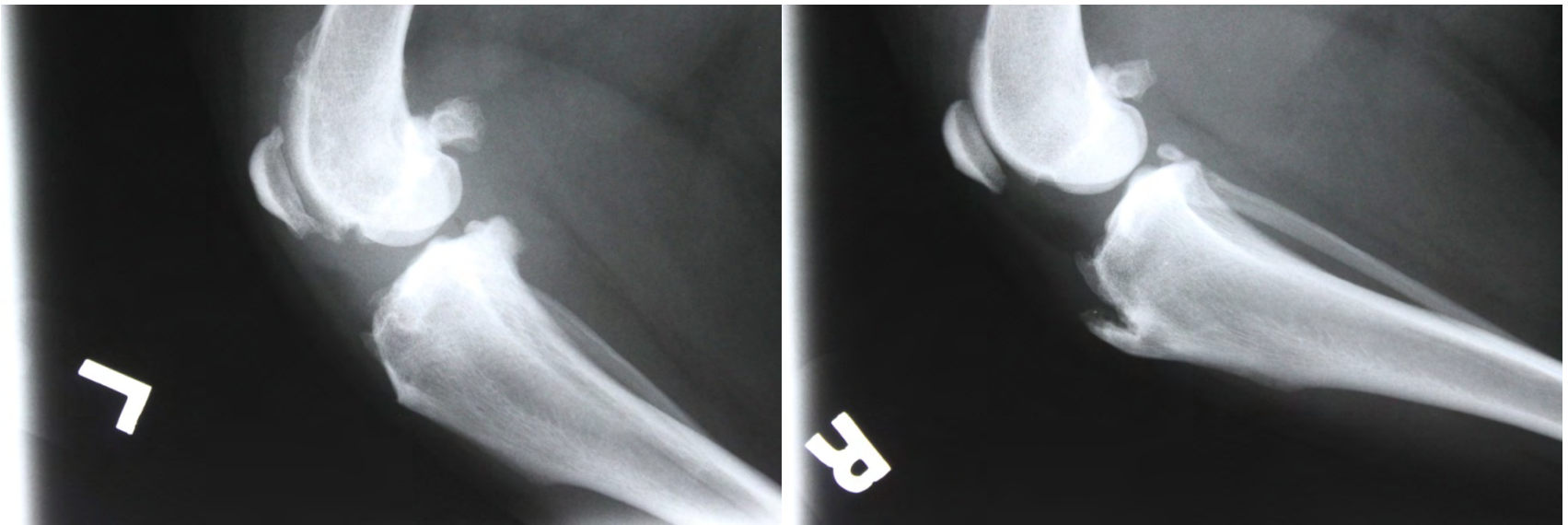


American Bulldog 2 yr post op





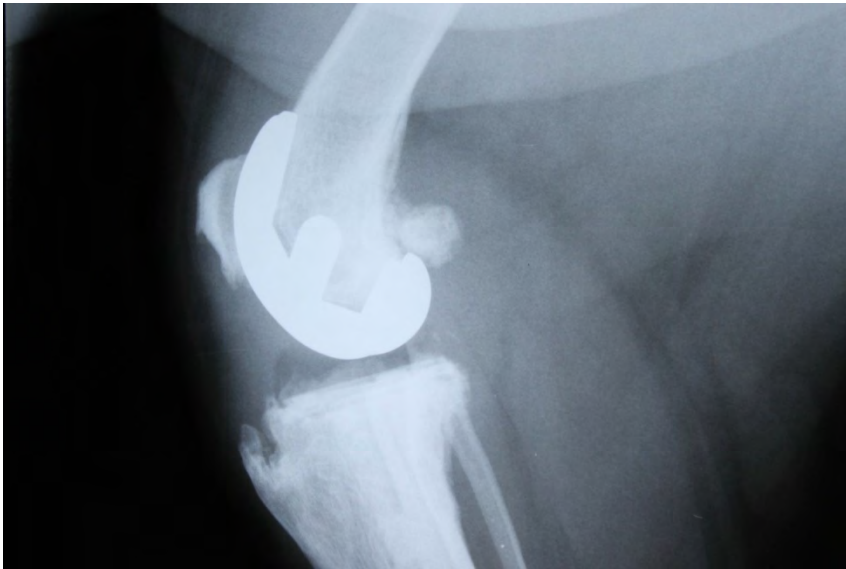
“Jenny” , 8 yo FS Mix 36 kg



Jenny, 1 yr post op L TTA, Now R symptomatic



# Jenny 5 Mo Post TKR, R





I wonder if  
that Zebra  
has bad  
knees..



# How I Integrate TTA Into My Practice

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Good news..my 401K is up..my 2 cents is now worth 3..

# Tibial tuberosity advancement

- **Initial awareness for me was 2002**
  - Initially skeptical
  - Procedure gained popularity
  - Published studies
  - Referring veterinarian awareness
  - Other practices performing TTA
  - Clients requesting TTA

# What I had learned so far..where was I at?

- Much is made regarding success of surgery
- Procedures are blamed for failure
- TPLO was novel...hyped
  - patented
- Another means to achieve goals

# Process of integrating TTA

- Awareness
- Communication...anecdotal reports, Science
- Interest increases
- Participate in a course
- Introduce procedure
  - Staff
  - Veterinarians
  - Clients



# Learning.....Proficiency

## Basics

- Course work
- Equipment

## Practice

- First case(s)
- Staff training

## Repetition

- Confidence increases
- Understand limitations

# TTA

- Osteotomy distraction is pre-set
- Potential to fine tune
- Broad view of outcome (another tool)
- Cage size
  - Tangent measurements
  - Patient size
    - Tibia conformation, plate fork

# My experience: landing the plane for the first time

- Rescue group
- Proper communication
- Obligation exists to inform
  - How can it be “best” if I haven’t performed 1?
  - If what I did before was problematic, why did I say it was good?
- Over-selling procedure is risky
- As learning curve improves so does confidence

# My experience

- Learning curve quick
- Used post op films to learn
- Same assistant/nurses
- Few complications



# My experience

- Swelling was same or less than TPLO
- Limb use subjectively good
- Less “worry” at two months
  - Suture repairs toe tapped more
- Observations
  - Advancement
  - Bowing at stifle
  - Occasional licking..
    - Alleviated with refinement

# My experience

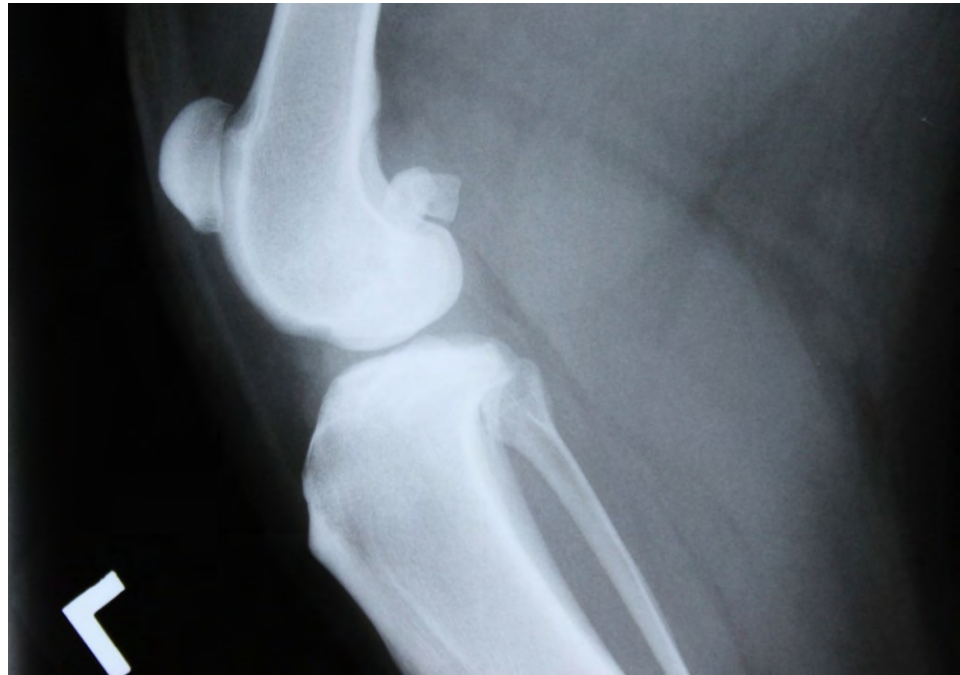
- Use a pin to guide the osteotomy
- Sometimes modify distal fork
- Sometimes add spacer for cage
- Try to avoid screw/fork holes at patellar tendon insertion
- Center fork holes in osteotomy

# My experience

- **TTA became my preferred osteotomy**
- **I still perform and like extracapsular repairs**

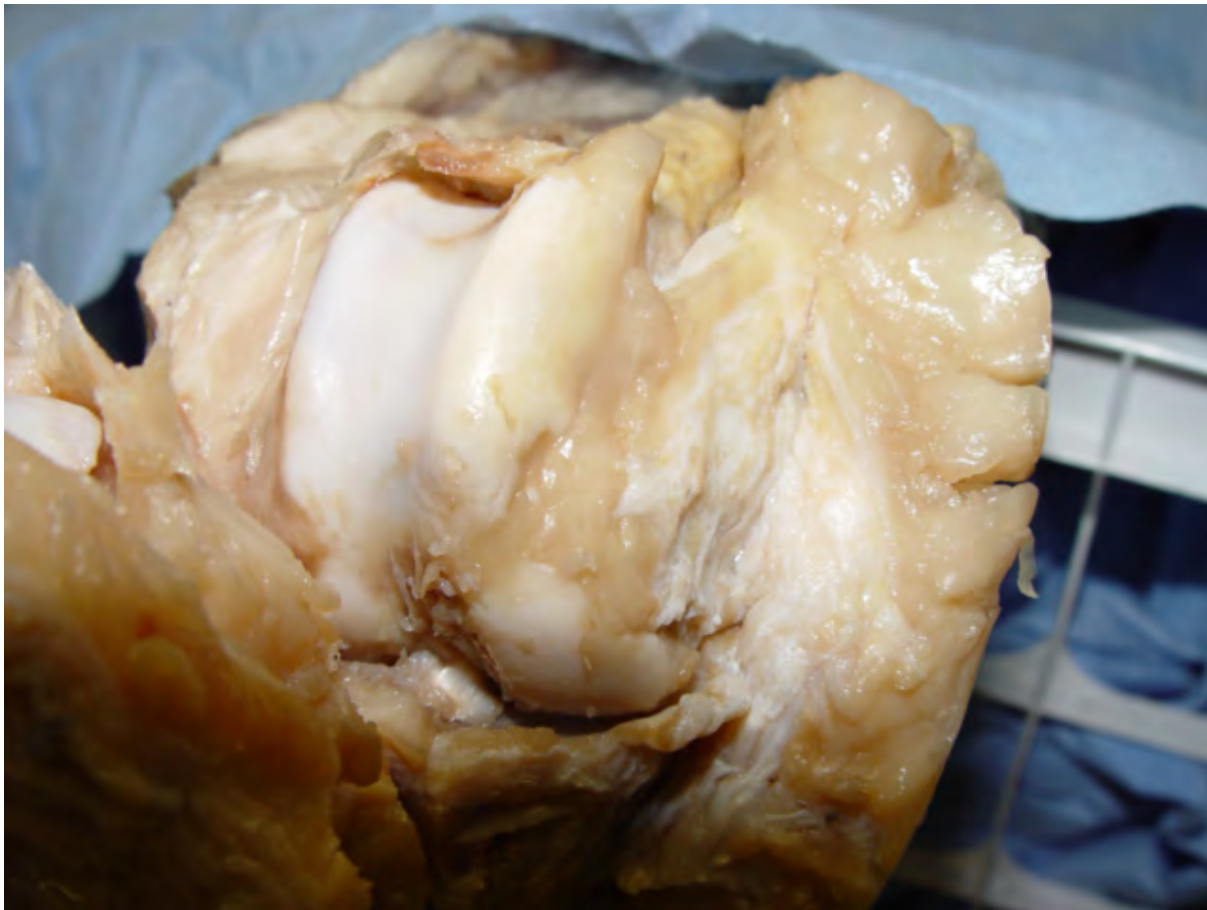
# Sarge, 8 YO MN Boxer

What do you think??

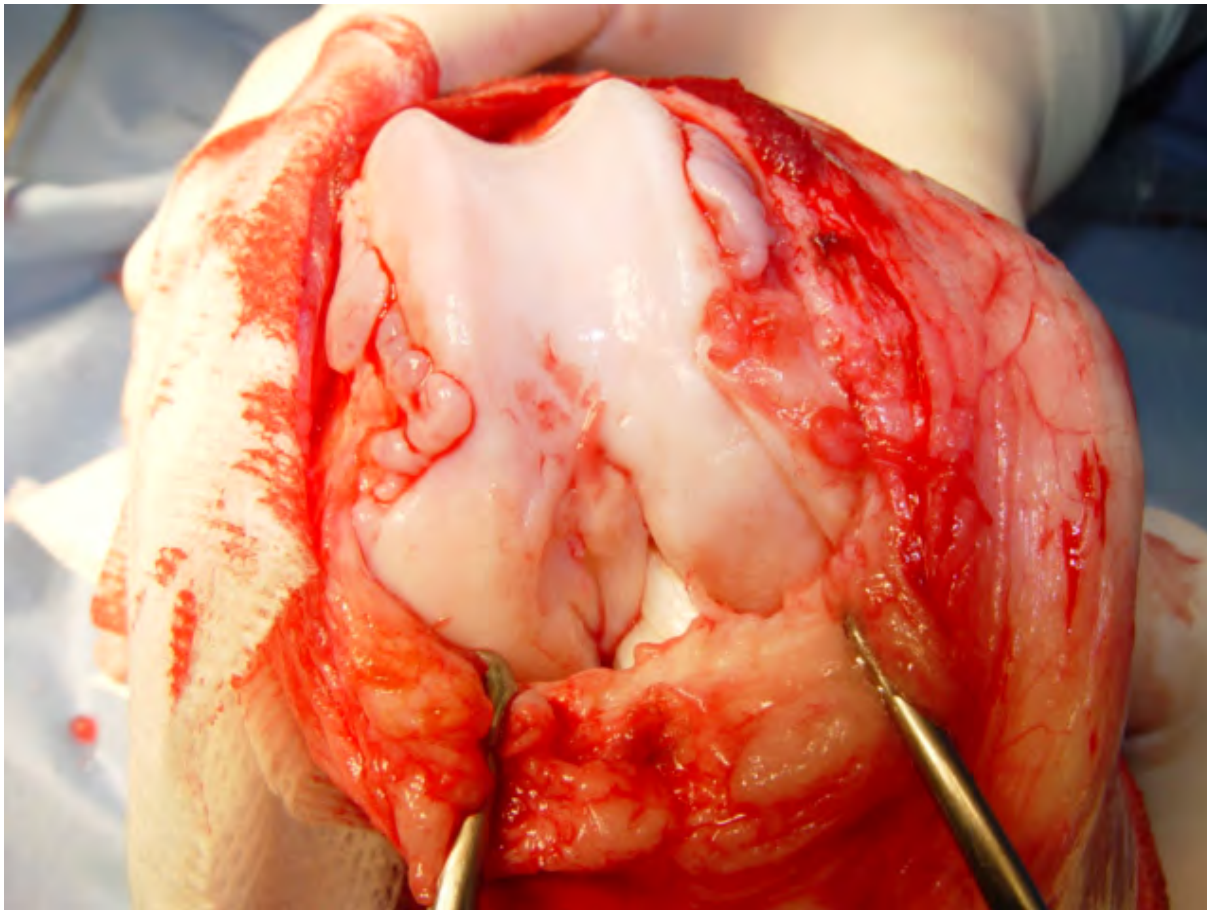




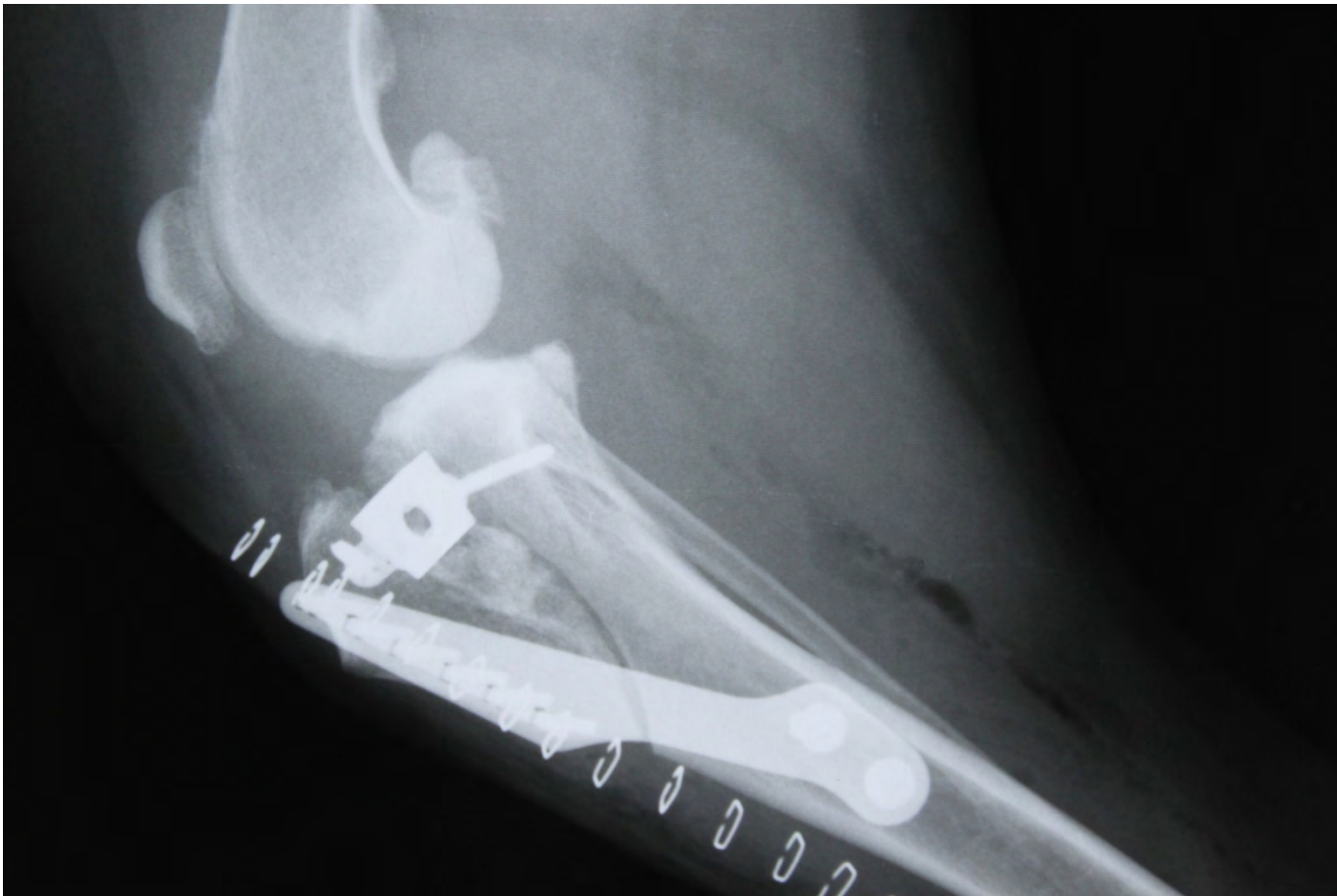
# Gross pathology



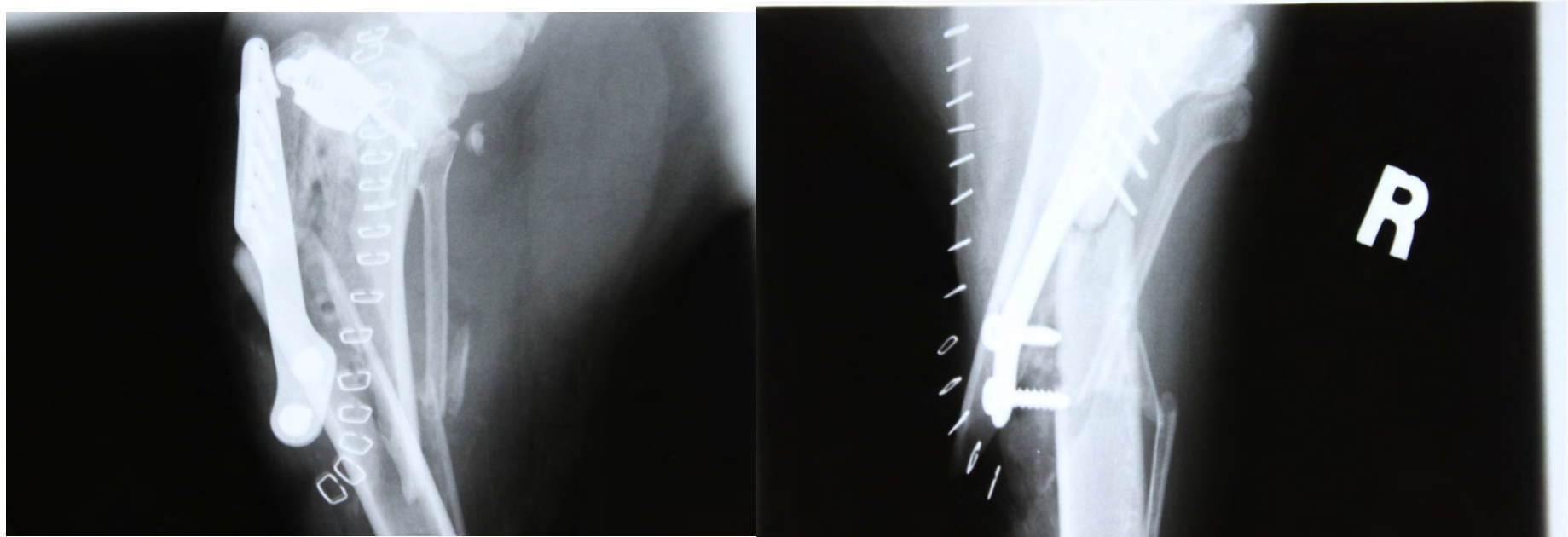
# Boxer with OA, visibly normal CCL



# 10 YO MN Springer, 30Kg



A bad day..





# Post op revision



2 mo follow up



