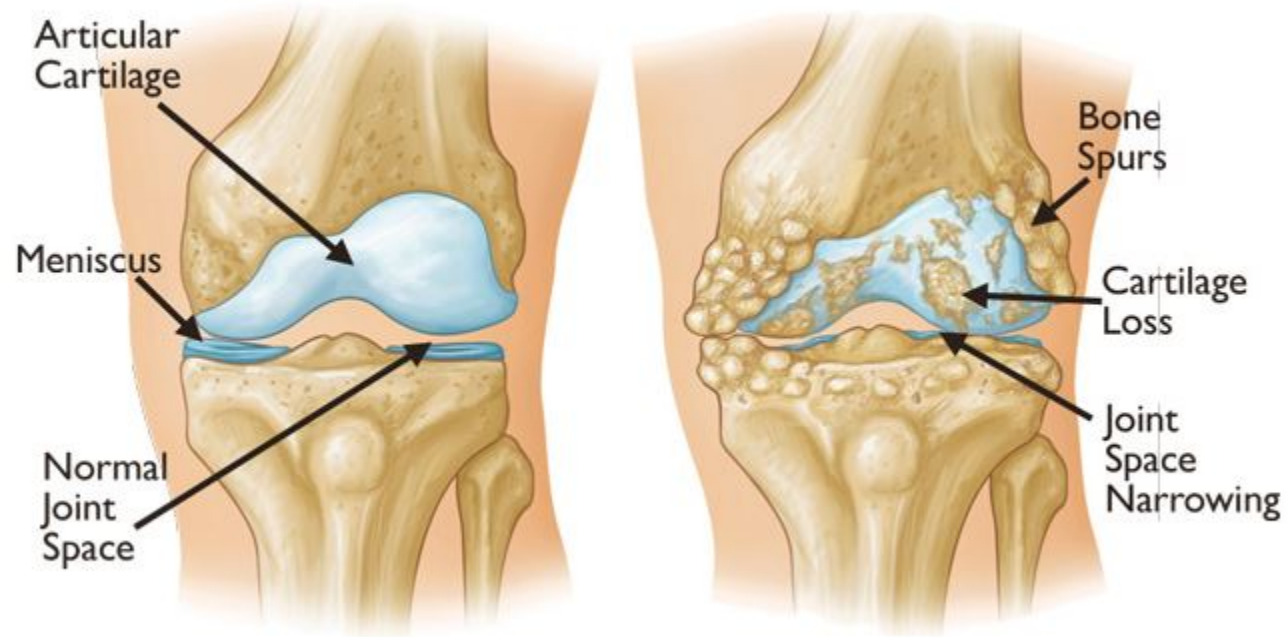


Using rAAV-TIMP3 Vectors for the Improvement of Osteoarthritis in an Ovine Model

**Presented By
Crystal Collier**

Osteoarthritis

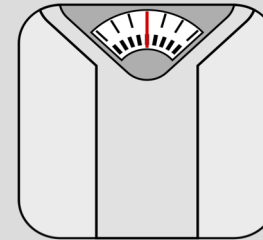




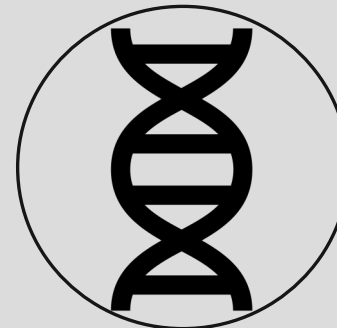
**Age
(Menopause)**



**Injury and
Excessive
Use**

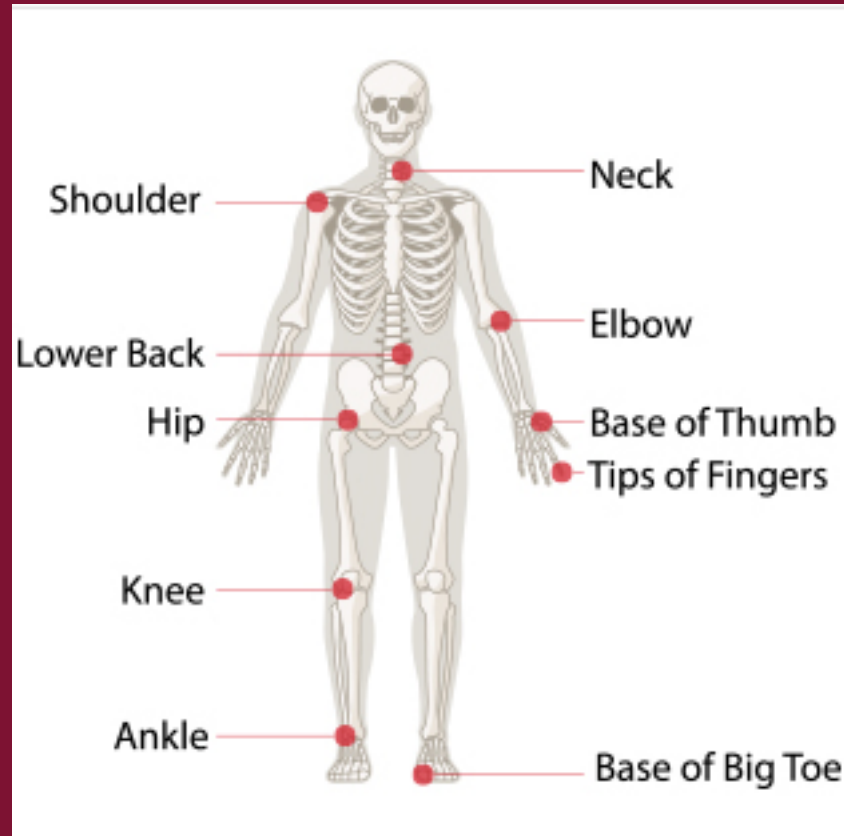


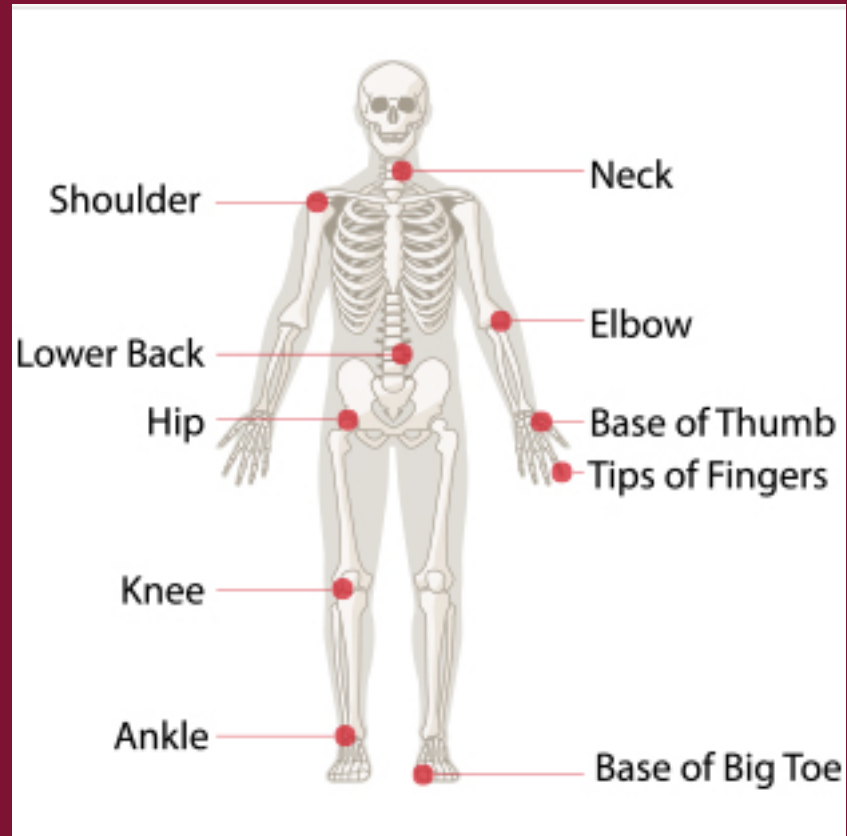
Obesity



Genetics

Causes





Causes



Menopause



**Injury and
Excessive
Use**



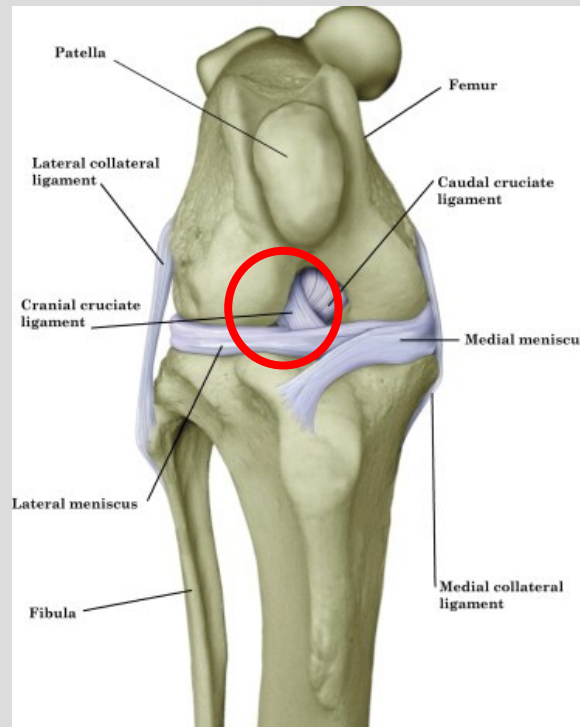
Current Treatments

- Lifestyle Changes
- Corticosteroid Injections
- NSAIDS
- Physical Therapy
- Topical Pain Relievers
- Surgery

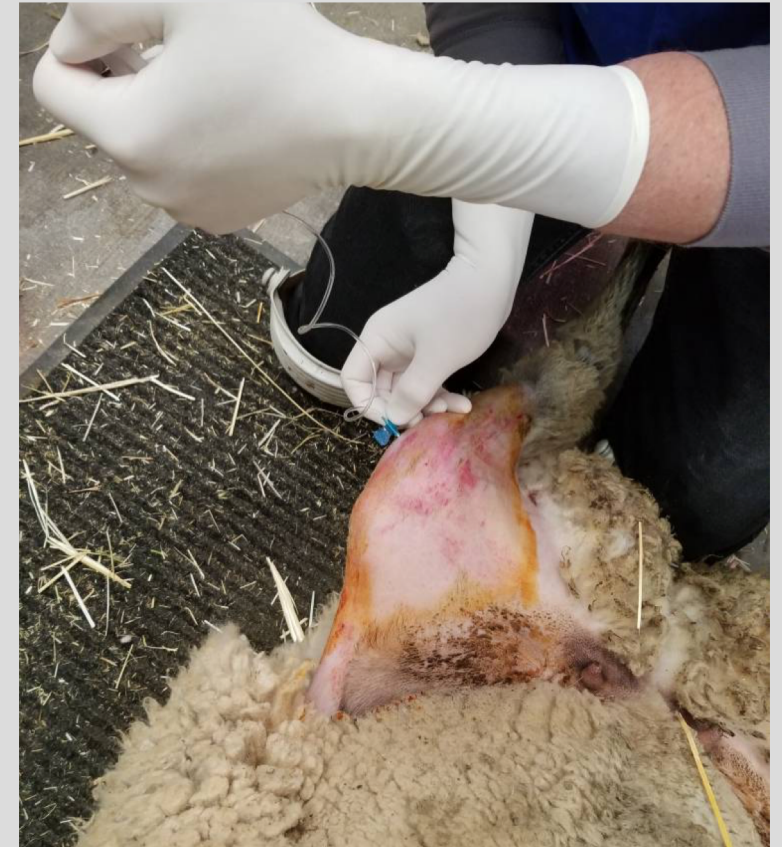
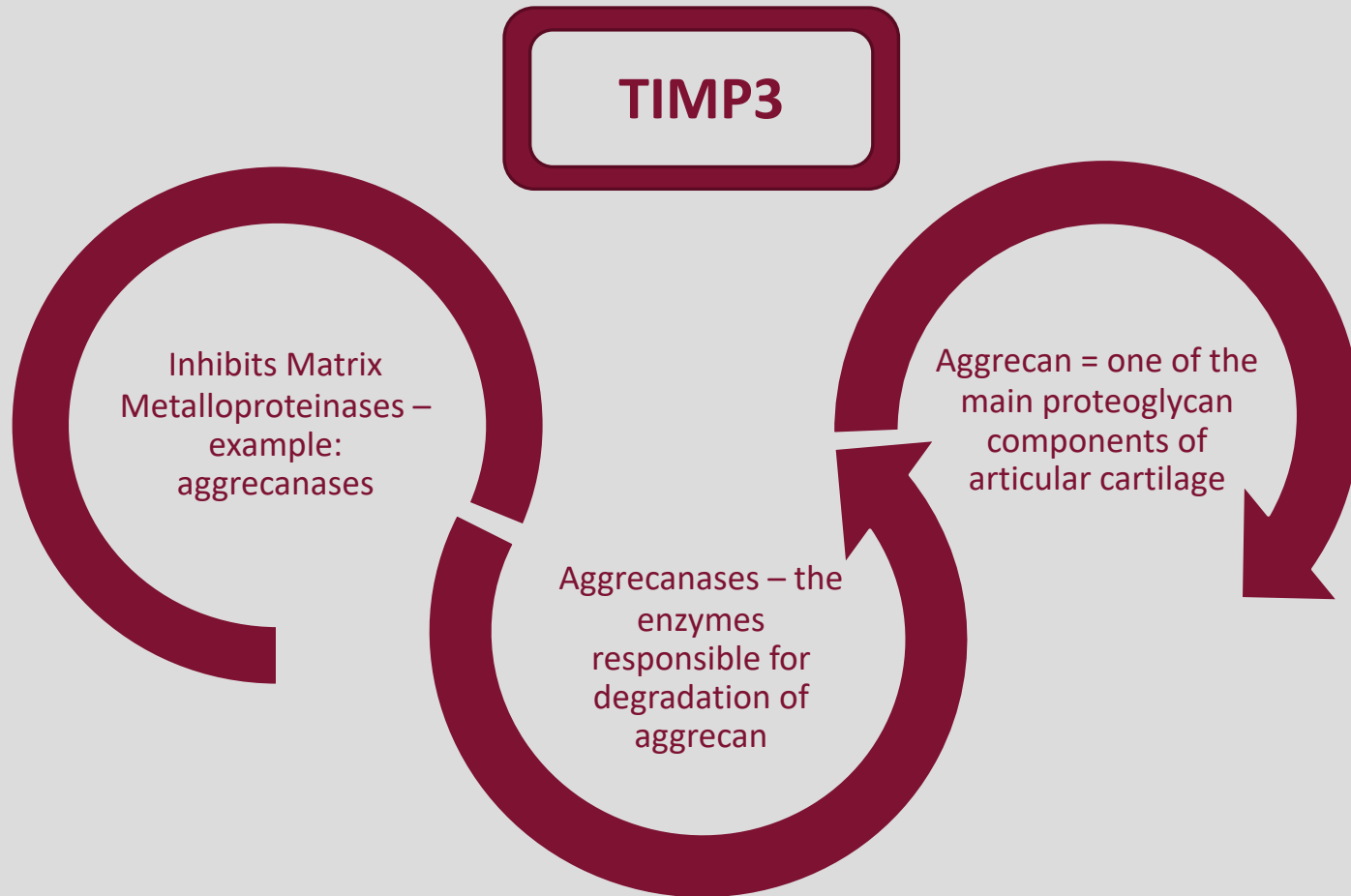
Inducing Arthritis



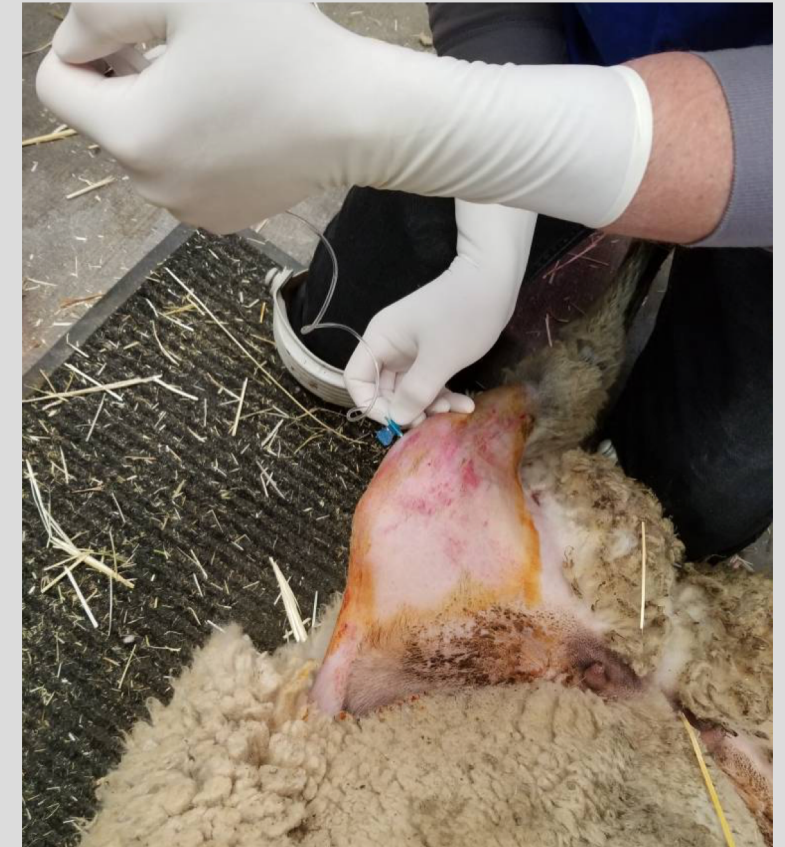
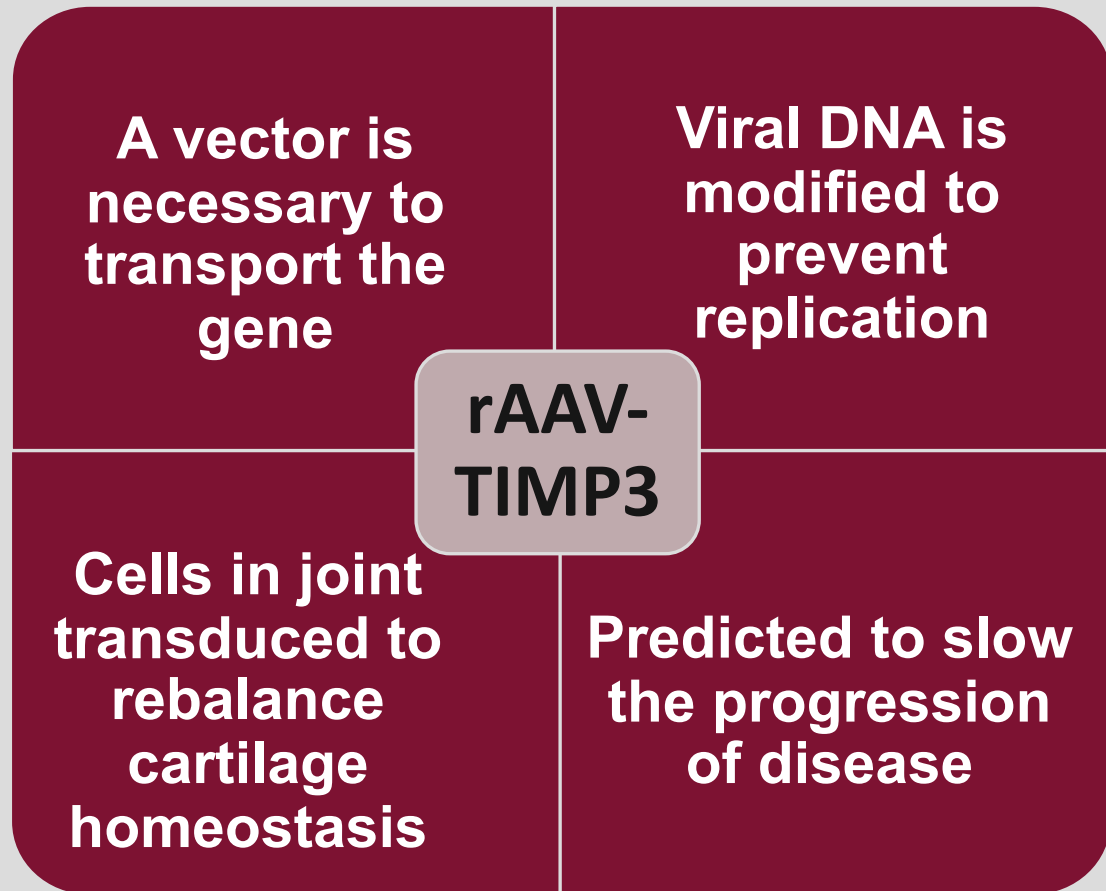
- CCLD (Cranial Cruciate Ligament Desmotomy)
- OVX (Ovariectomy)
- Oblique-Angle Forced Exercise



Treating Arthritis



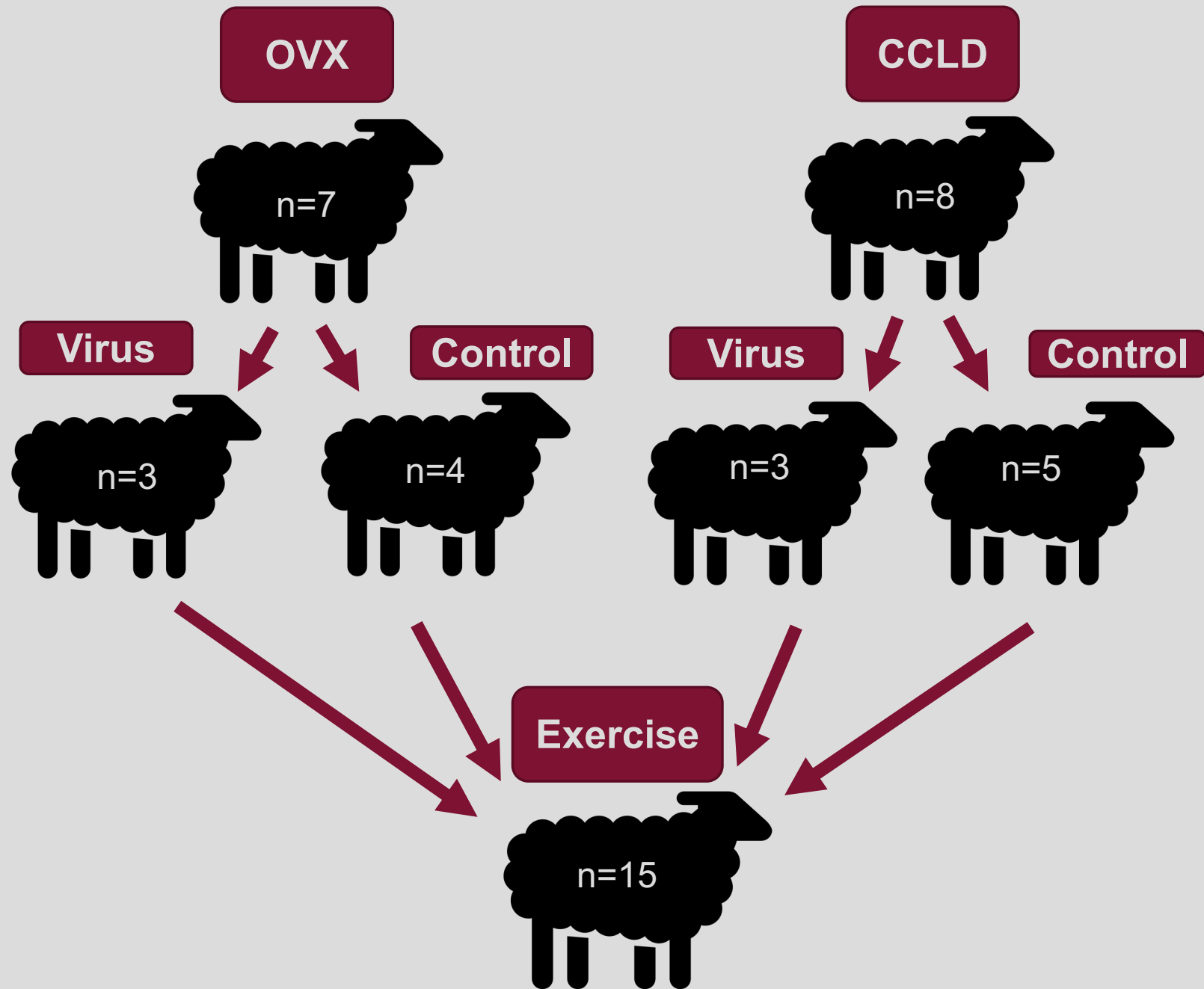
Treating Arthritis



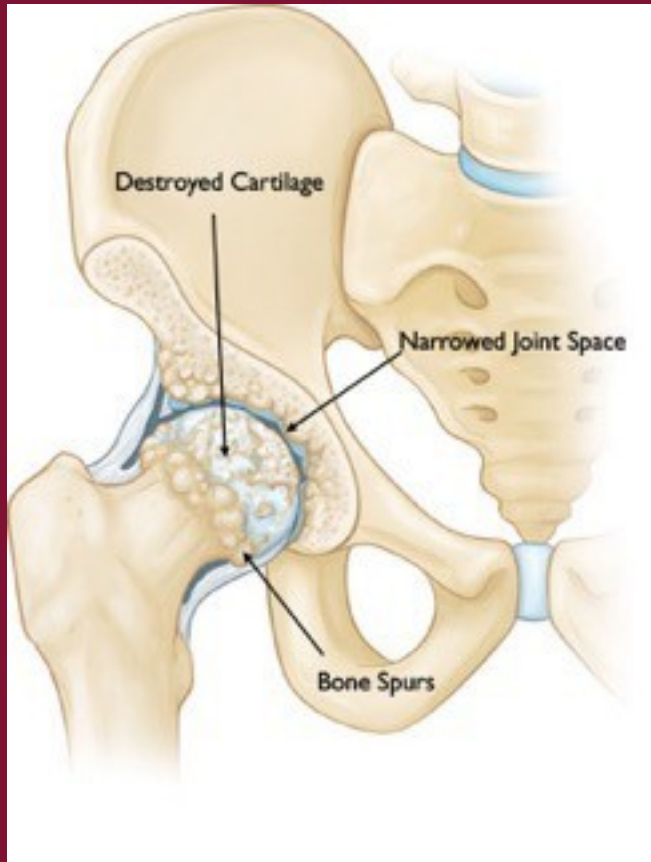
(Mason *et al*, 2013)

(Lim *et al*, 2010)

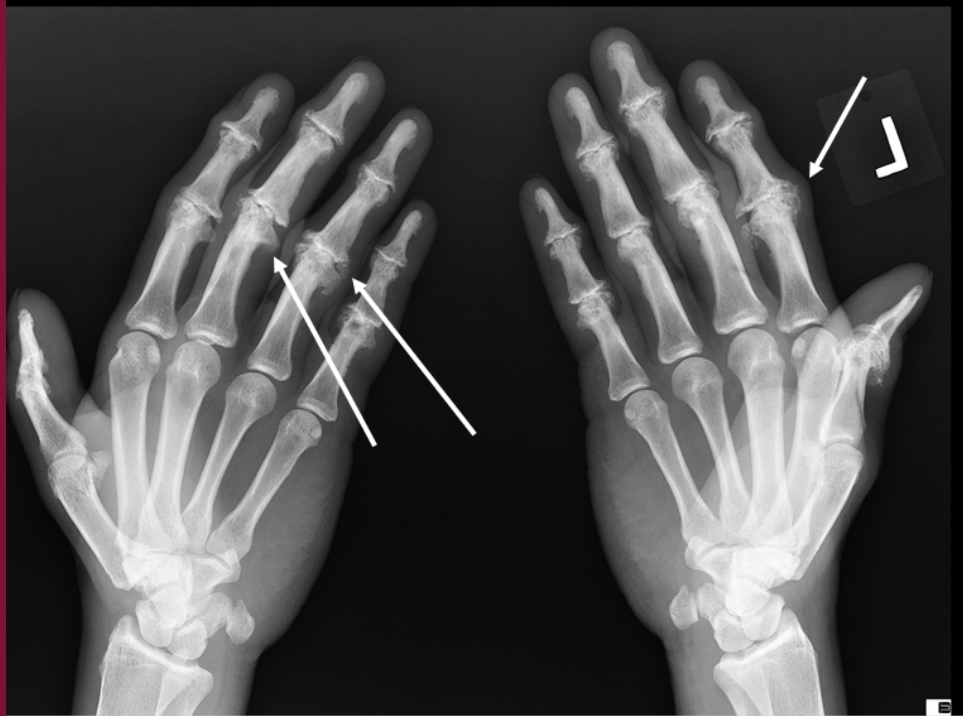
Study Design



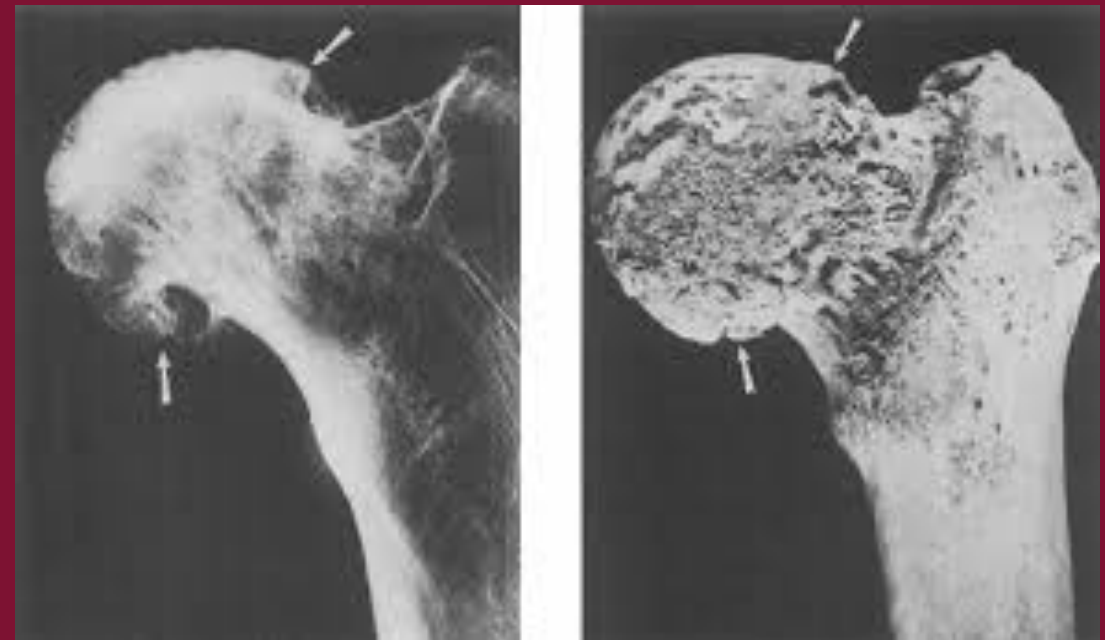
Osteophytosis



Osteophytosis
on the
femoral head
of the hip
joint.



Osteophytosis in
the interphalangeal
joints of the hand.





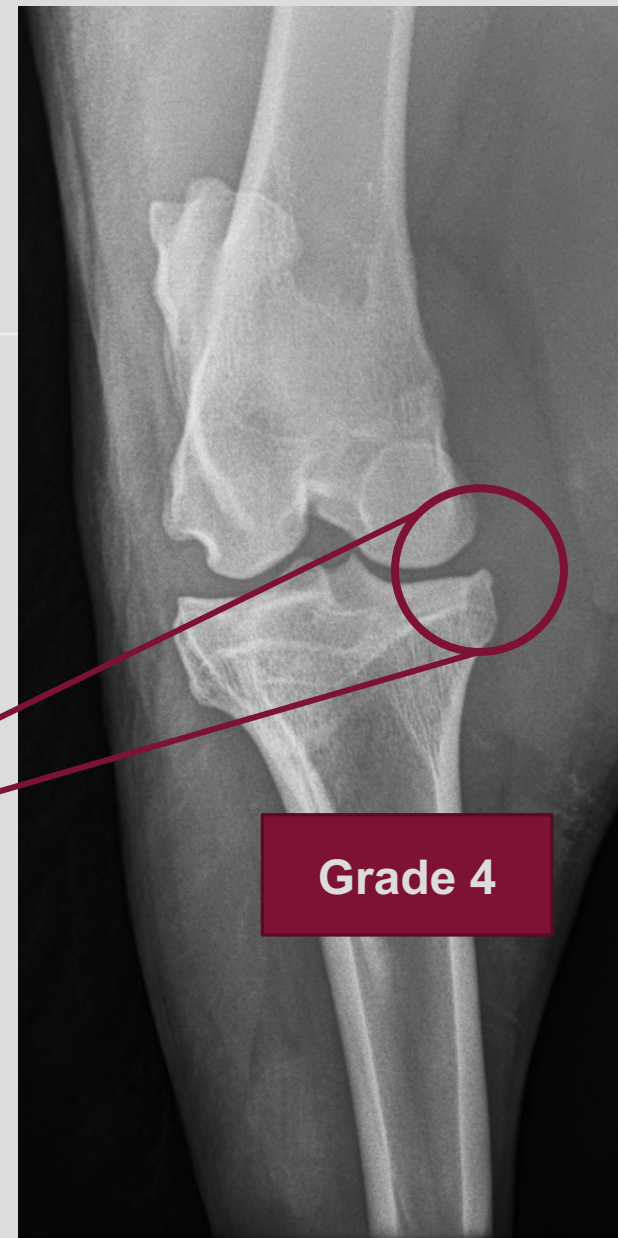
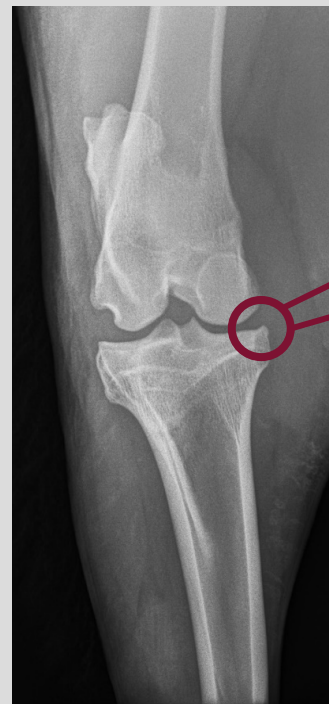
Preliminary Results

OVX Control

Pre-Exercise



Week 15



Preliminary Results

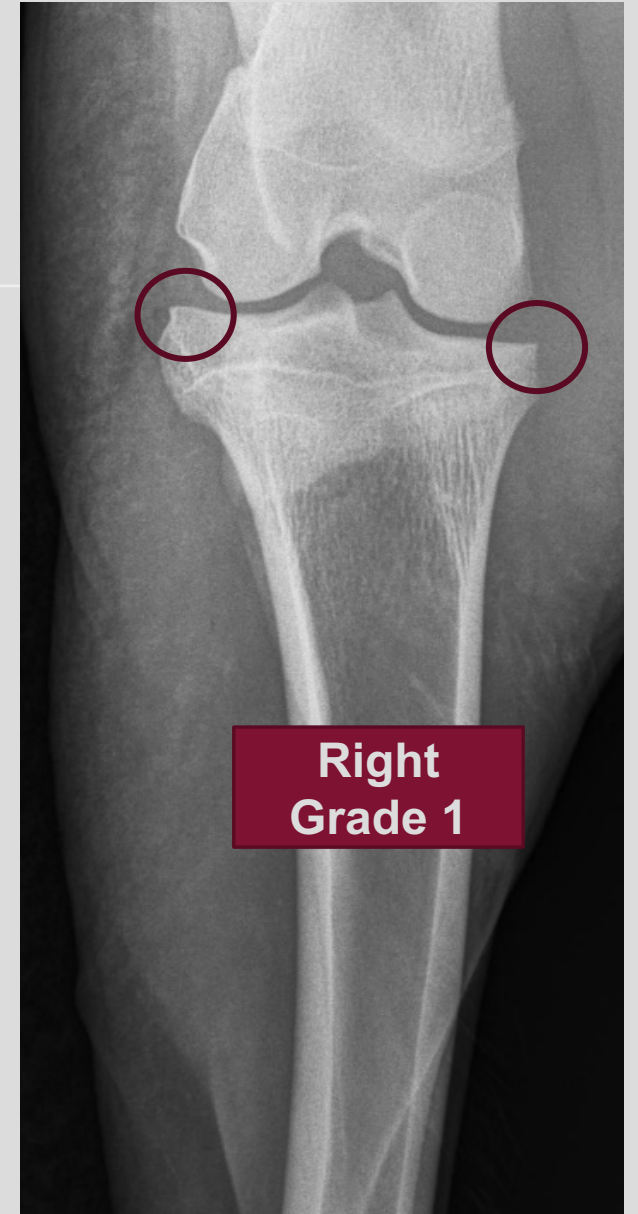
OVX Virus

Week 15

Week 15

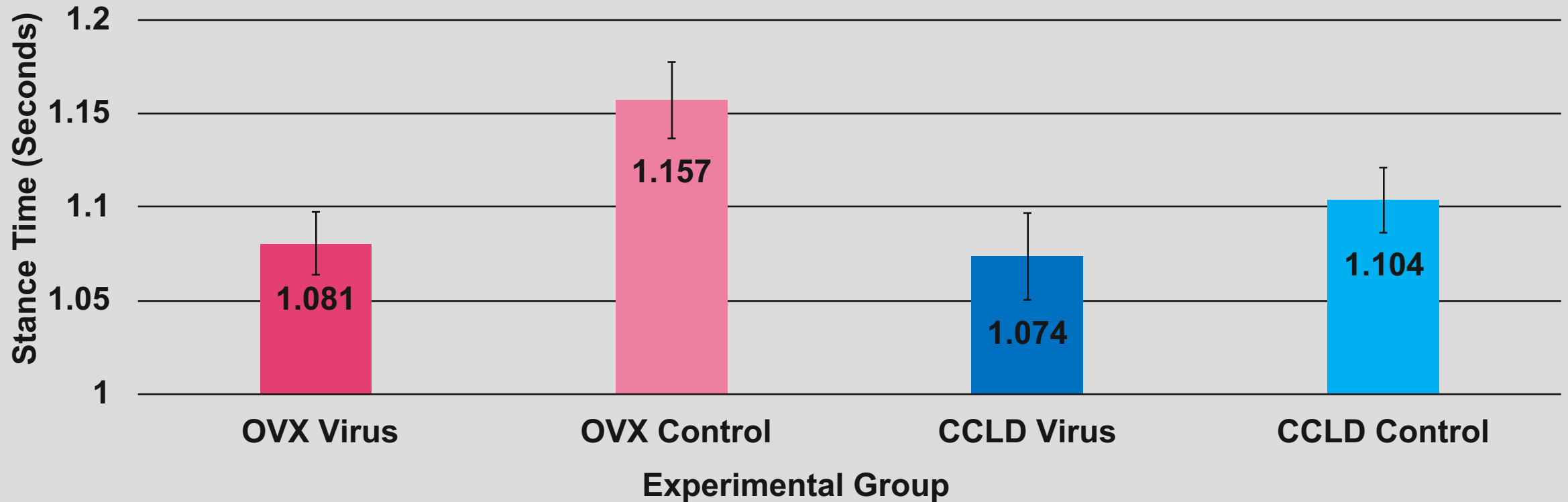
Left
Grade 0

Right
Grade 1



Preliminary Results: Gait Analysis

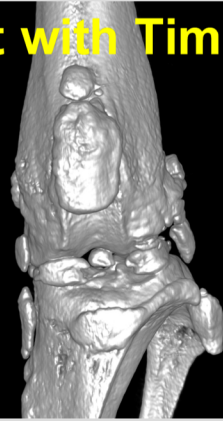
Average of Left and Right By Group



Joint with Osteoarthritis



Joint with Timp-3 ?



Big Picture

**The most
common joint
disease on
earth.**

**23 Million
Americans**

**630 Million
People
Worldwide**





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