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Evaluating cancellous bone adaptations following injury to detect early markers of osteoarthritis in an ovine model

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RESULTS & CONCLUSIONS:

1. Anterior cruciate ligament/medial collateral ligament transection (Tx) of the ligament appears to have the greatest impact at the medial posterior location of the tibial plateau.
2. Meniscal injuries did not have a significant impact on the bone volume in the tibial plateau.
3. Plating and ligament transection both appear to contribute to alteration of bone structure although the extent to which each factor contributes is uncertain at the present.
4. Insignificant differences between the SHAM (do not develop osteoarthritis [OA]) and Tx animals (develop OA) demonstrates that bone change is not a likely initiating event in the development of OA.