
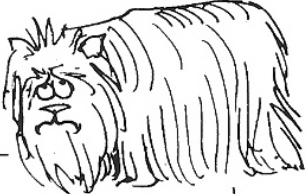


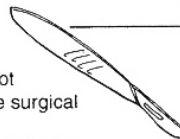




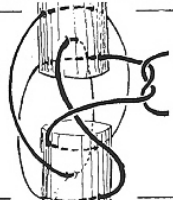



Stifle		644	SKELETAL SYSTEM	
Condition	Facts/Cause	Presentation/CS	Diagnosis	Treatment
Patellar luxation SAP 1031; H3B 813; H2B 861, C12T 1172; 5min 912; Cat 1606; S 1117; O-L 152; O-D 254; Sx4B 1232; Sx3B 741; Sx-S-hb 604; Sx-S 1854; Sx-OP 516, 10; Sx-O-Sx 272; RA 1 *** 	<ul style="list-style-type: none">Dogs > catsSmall breeds >> larger breeds<ul style="list-style-type: none">Poodles (miniature & toy), Yorkshire terriersCongenital > acquiredMedial & lateral patellar luxation (MPL & LPL)Medial > lateral in every size/breed category MPL:LPL - 7:1<ul style="list-style-type: none">MPL:LPL ratio in large breeds - 4:1Bilateral:unilateral ratio - 2.5:1< 2 yr-oldFemales:male ratio 1.5:1Cause: unknown, congenital	<ul style="list-style-type: none">Rear leg lameness- Intermittent to carrying limbPain  <div>DDx:<ul style="list-style-type: none">Leg-Perthes diztraumatic ligament rupture<ul style="list-style-type: none">Cranial cruciateMed. collateral lig.Meniscal injuryCoxofemoral luxation</div> 	<ul style="list-style-type: none">Hx, CSPalpation: extend limb & assess grade of luxationRads: Skyline view:<ul style="list-style-type: none">Sternal recumbencyFlex stifle & place animal on its kneesShows depth of trochlear groove, patella & femoropatellar joint spacePatellar (trochlear) groove usually shallow in dogs w/ patellar luxation 	<ul style="list-style-type: none">Surgery: if growth plates are opened whether CS or not<ul style="list-style-type: none">Persistent luxation immediate surgical correctionNumber of procedures, most patients require combination of techniquesConservative if minimal CS, mature dog > 1 yr-old<ul style="list-style-type: none">Weight reductionControlled exerciseNSAIDsUsually ineffective in clinically affected animals   Prognosis: Good to excellent w/ surgery
Grades of luxation Grade 1 - Easily luxated, returns when released Grade 2 - Easily luxated, remains luxated Grade 3 - Permanently luxated, but can be manually returned Grade 4 - Permanently luxated, can't be manually repositioned			SURGERIES <ul style="list-style-type: none">Reinforcement of lateral restraints (suture from patella to lateral fabella)Deepening trochlear groove<ul style="list-style-type: none">Trochleoplasty (deepening trochlear groove)Chondroplasty (cartilage flap from trochlear groove replaced after groove deepened)Wedge recession (cut wedge out of groove, then deepen cut & replace wedge)Tibial tuberosity translocation: move tibial tuberosity to side away from luxationMedial release of the joint capsule & muscle insertions onto patellaLateral rotation of tibia  	
Small >> Larger breeds; Med. > Lat. in all CS: Rear leg lameness Dx: Palpation, Rads: Skyline Tx: Surgery • Px: Good to excellent				
Stifle luxation 	<ul style="list-style-type: none">Severe trauma required: rupture of cr. & ca. cruciate, medial & lateral collateral ligaments, meniscal attachments, popliteus & long digital extensor mm.More common in catsCS: LamenessDx: Hx, CS, Palpation: total laxity in all directions, lateral medial, cranial caudal & rotational instabilityTx: Repair medial & lateral collateral ligaments, popliteus & long digital extensor mm. (locking tendon loop, "3-pulley pattern", Bunnell suture, spike washer & screw or fascial reinforcement), Correct cruciate by intracapsular or extracapsular imbrication techniques, Suture menisci to periphery or do a meniscectomy - Postop: Kirschner-Ehmer device or cast immobilization for 3-4 weeks; Then Robert-Jones bandage for 2 weeks.			  "3-pulley pattern"

Ruptured cranial cruciate lig.

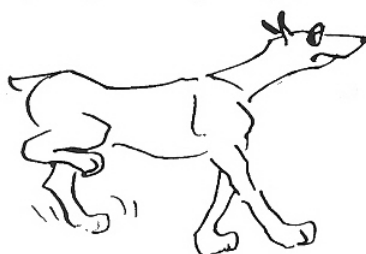
H3B 824; SAP 1034; 5min 484; Cat 1604; Sx-OD 244; Sx-OL 158; Sx4B 1187; Sx3B 708; Sx-S-hb 599; Sx-S 1824; Sx-OP 534, 10; Sx-WW 255; X-Gr 94; NB 16.11, 16.4

• Cause:

- Middle aged dogs
 - . Overweight
 - . Deterioration of lig, other m/ rupture w/in a yr
- Young dogs: trauma, maybe very minimal

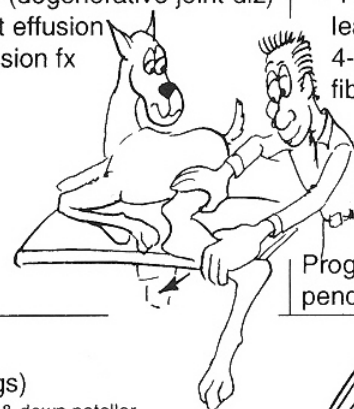
• Carrying limb lameness

- May resolve but returns w/ exercise
- Chronic, persistent lameness (older, overweight dogs)



• CS, history

- Cranial drawer sign (see box)
- Radiology:
 - DJD (degenerative joint diz)
 - Joint effusion
 - Avulsion fx



• Rest for 3-4 months: small dogs

• Surgery for large dogs (see box)

- Postop:
 - Restrict exercise to hand leash only, no stairs for 4-5 months for all but the fibular head procedure



Prognosis: Very good to guarded depending on chronicity & surgical expertise

Cranial drawer sign (90%)

- Hold distal femur & prox. tibia with 2 hands
- Position of stifle
 - Cranial drawer sign (flex limb 45-90° or more)
 - Lachman test (modest flexion 15-30°)
 - Tibial in full extension
- Push tibia cranially
- Cranial movement + (only minimal movement normally)
 - Movement in each position - complete rupture
 - Movement in only 1 position - partial

Tibial compression

- Hold femur motionless w/ one hand & the finger on the tibial tuberosity
- Flex the hock
- If tibial felt to move cranially = rupture



Stifle

CS: Carrying limb lameness

Dx: Cranial drawer sign

Tx: Rest small; Sx - large dogs

Caudal cruciate ligament rupture

H3B 826; SAP 1037; Sx-OL 161; Sx4B 1218; Sx3B 701; Sx-S-hb 603; Sx-S 1846; Sx-OP 555

*

• Extremely rare

- CS: Acute hindlimb lameness
- Dx: Hx, CS, caudal drawer sign (tested at 90° of stifle flexion), Radiology (avulsion of bony attachments, caudal sag of proximal tibia in lateral view)
- Tx: Tunnel graft
- Prognosis: Good

Surgeries:

• Patellar tendon procedure (25-175 lb dogs)

- Cut a strip in fascia lata/quadriceps fascia, over patella & down patellar ligament
- Converging saw cuts in patella
- Cut proximal end of strip, leaving distal end attached to tibial tuberosity
- Drill tunnel in the lateral femoral condyle in direction of cranial cruciate ligament
- Push graft through defect in patellar tendon, fat pad & tunnel (piece of patella in tunnel)
- Postop: Robert-Jones bandage w/ cranial fiberglass slab for 1 month (necessary)
 - . 4 month leash only exercise & no stairs

• Fascial strip over-the-top procedure

- Cut strip in fascia lata parallel & lateral to patellar tendon
- Push it through fat pad & intercondylar space and over top of lateral condyle

• Fibular head transposition procedure

- Free fibular head & move cranially
- Lateral collateral ligament then substituted for cranial cruciate ligament

• Imbrication

- Extracapsular medial & lateral imbrication with nylon sutures
- . Around fabellae through patellar ligament of tibial tuberosity

