

# TOPIC-MEDIAL PATELLAR DESMOTOMY

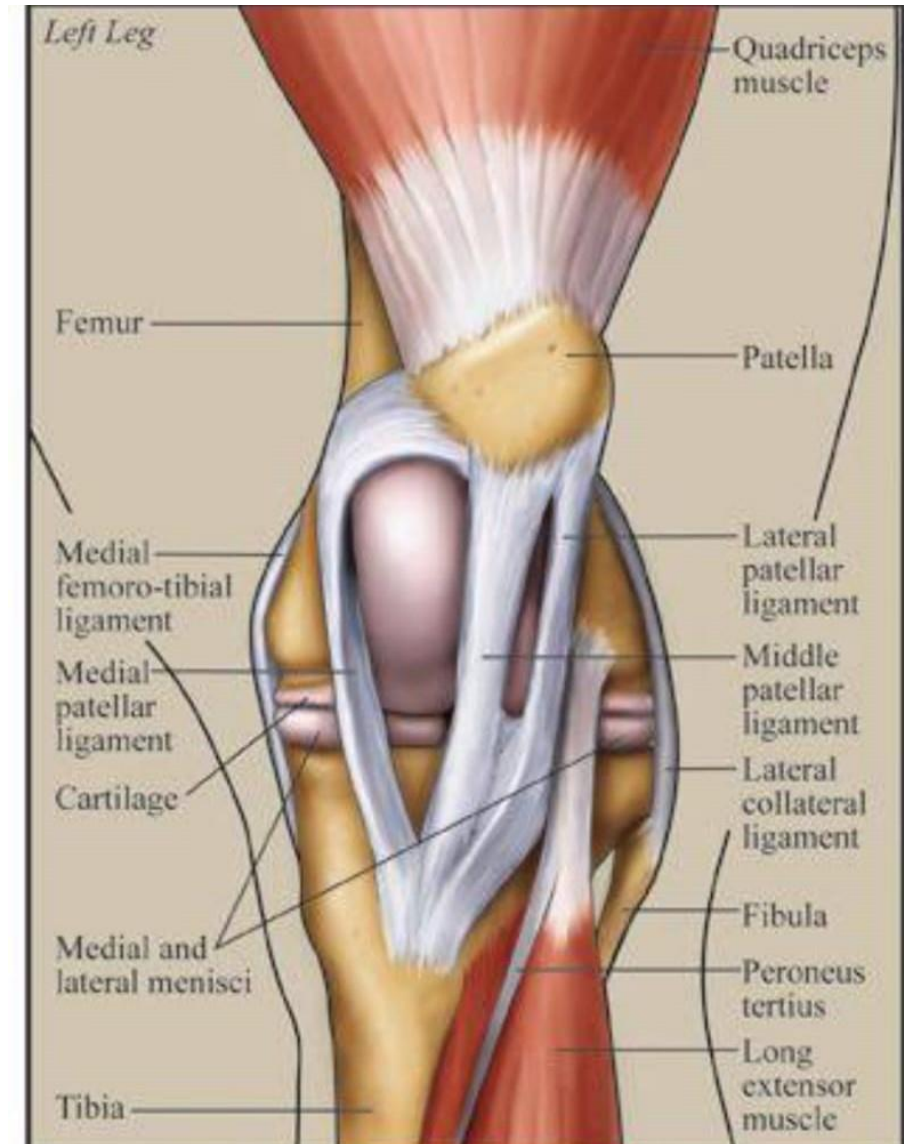


Dr. Kuldeep



# UPWARD FIXATION OF PATELLA

The condition occurs on the medial trochlea of the femur between the middle and medial patellar ligaments. The fixation of the patella on the medial trochlea of the femur prevents flexion of the affected hind limb. The condition is commonly bilateral, though it may be worse in one limb.



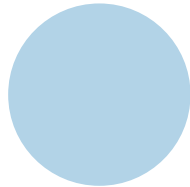
# ETIOLOGY

Generally, it has two causes described as the following below :-

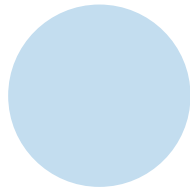
- **Predisposing causes**
  - Hereditary: “Straight hind limb”(steep angle between femur & tibia) conformation
  - Debility & poor condition
  - Occupational Trauma
  - Laxity of Ligament
  - Climate Condition
  - Pregnancy
- **Exciting Causes**
  - Trauma from over extension of the limb.
  - Abrupt training and confinement to a stall.

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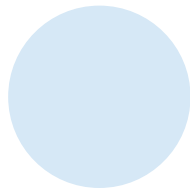
# SYMPTOMS



In acute cases, hind limb is locked in extension. The stifle and hock cannot flex, but the fetlock can.



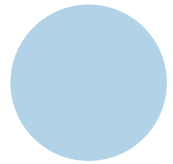
In some cases, the locking may be relieved and recur in next few steps or it may remain locked for hours or days.



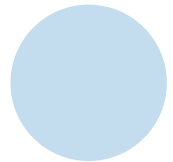
In some cases, “ catching” of the patella occurs when the animal walks and the limb never truly locks in extension.

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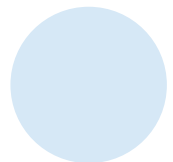
# DIAGNOSIS



When the limb is locked, diagnosis is simple.



On palpation when the limb is locked in extension, patellar ligaments are tensed and the patella is locked above the medial portion of the femoral trochlea.



Make the animal walk up & down a slope. since animals with intermittent upward fixation of patella are reluctant to fully extend the stifle when they walk uphill, they assume a slightly crouched position and are reluctant to allow the stifle to be thrust caudad. As they descend the slope, a jerky gait may be noted as the result of incomplete extension of the stifle.

# TREATMENT

Conservative approach:- In acute upward fixation of the patella, a sideline may be applied to the affected limb so that as the limb is drawn forward, the patella is pushed medially and downward, which often disengages the fixed patella.. Startling the animal with a whip so that the sudden jump may release the patella.. Backing the animal while at the same time pushing inward and downward on the patella may release it.

## Surgical approach : Medial patellar desmotomy

- A ¼ to 1 inch incision is made over the middle patellar ligament near the tibial attachment of the ligament under local analgesia.
- A blunt bistoury is inserted underneath the medial patellar ligament close to its tibial attachment. (Alternately a curved mosquito forceps are forced through the heavy fascia beneath the medial patellar ligament. This tears the fascia so that a large bistoury can be inserted beneath the ligament.)
- The blade is turned outward and the medial patellar ligament is severed.
- Skin wound is closed in a standard manner.

# STRINGHALT

It is an involuntary flexion of the hock during progression and may affect one or both hind limbs.

## Etiology

- Exact etiology is not known.
- Nervous diseases, degeneration of the sciatic and/or peroneal nerves, affection of the spinal cord, toxic factors and articular lesions within the hock and stifle are thought to be responsible for the condition.
- Involvement of lateral digital extensor.







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## SYMPTOMS AND DIAGNOSIS

- Some horses show mild oil flexion of the hock during walking, while others show a marked jerking of the foot towards the abdomen.
- Some horses show these signs at each step, while in others it is spasmodic.
- The signs become more apparent when the horse walks after rest and the signs may diminish later on.
- Clinical signs increase in cold weather whereas decrease in warm weather.
- Diagnosis
- History and clinical signs.

# TREATMENT

## Lateral digital extensor tenotomy

- Operated in standing or in lateral recumbency with affected limb upper most under local analgesia.
- A 4-inch incision is made over the muscle of the lateral digital extensor just above the level of the point of the hock.
- Incise through the fascia and the muscle belly is exposed. Pull the muscular portion to reveal movement in the distal portion just before it attaches to the long extensor.
- A ½ inch incision is then made over this distal portion before it joins the long extensor.
- Skin and subcutaneous tissues are cut with a scalpel and then a blunt pointed bistoury is slipped under the tendon and severed.
- Exert tension on the proximal portion to pull out the tendon.
- When the whole tendon is exposed (about 7 inches) through the upper incision, the tendon should be cut off, removing a 3-4 inch portion of the muscle belly with it.
- After removal of the tendon, subcutaneous fascia is sutured.
- Skin wound is sutured in a standard manner.



## REFERENCE

A textbook on veterinary surgery & radiology by Dr S.K Nandi

Images downloaded :<https://images.app.goo.gl/p7cZ7Gtgd79tvfp4A>

[www.pexels.com](http://www.pexels.com)



**THANK YOU**