香港獸醫專科服務

HONG KONG VETERINARY SPECIALTY SERVICES

Hip Luxation (Hip Dislocation) in Dogs and Cats

Quick Take
A hip luxation means the **ball of the hip joint (femoral head) has popped out of the socket** (acetabulum).
This almost always happens **after trauma** (fall, car accident, rough play), but may occur more easily if the pet already has hip dysplasia or ligament damage.
Most hip dislocations in dogs and cats require surgery for the best long-term outcome.
The **Toggle Pin Stabilization** technique has become one of the most reliable surgical methods, offering excellent stability, especially for craniodorsal luxations (the most common type).
With **proper repair**, most pets return to normal or near-normal limb function.

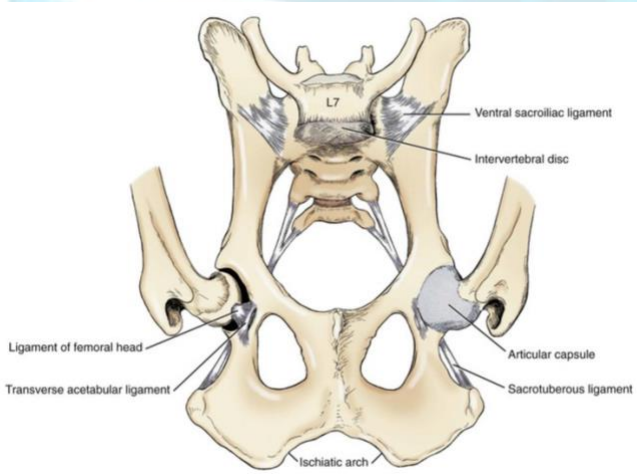
1) What's going on inside?

The hip is a ball-and-socket joint:
- The ball is the femoral head.
- The socket is the acetabulum.
- A strong ligament (ligament of the femoral head) plus a tight joint capsule normally hold the ball in place.

A **traumatic impact** can:
- Tear the ligament
- Rip the joint capsule
- Force the femoral head out of the socket

The femur may dislocate:
- **Craniodorsally** (up and forward) — most common
- **Caudoventrally** (down and inward) — less common, often more painful

The surrounding **soft tissues are damaged and inflamed**, making the **joint unstable**.
If not repaired, the hip may:
- **Reluxate** (pop out again)
- Develop **arthritis**
- Become **painful permanently**
- Even require **removal of the femoral head** later (FHO) if chronic



2) What owners typically notice

- Sudden non-weight-bearing lameness
- Rear leg held up, often turned outward or inward unnaturally
- Hip looks “shortened” on the injured side
- Pain when touching the hip
- Crying, trembling, hiding, or unwillingness to walk
- Some pets drag the limb

This is an **urgent orthopaedic injury**. Quick treatment improves the chance of success.

3) Diagnosis

A) Physical examination

- Limb carried up
- Abnormal range of motion
- Shortened leg
- Muscle spasm around the hip
- Pain on manipulation

B) Imaging

- X-rays confirm:
- The direction of the dislocation
- Whether **fractures** are present
- Whether the **hip socket or ball is damaged**
- Suitability for closed reduction or surgery
- CT scan, in some cases, evaluates complex trauma.

4) Treatment options

There are **three major treatment paths**:

A) Non-surgical option: Closed reduction

A vet tries to “pop” the hip back into place under anaesthesia.

Used when:

- The injury is very fresh (<24–48 hours)
- No fractures are present
- The joint is stable after reduction
- The pet is appropriately sized/conditioned
- Owners can manage strict rest

Method:

- The hip is manipulated back into place.
- A slingshot-like bandage (Ehmer sling for dogs, figure-of-eight for cats) is worn for 7–14 days.

Success rates:

Dogs: 40–60%
Cats: 60–70%

Risk of reluxation is significant

Success **drops dramatically if attempted late (>48 hours)**
Often recommended only for selected uncomplicated cases.
Leaves the hip with significant **hyperlaxity** (torn ligament does not heal)… which means that **degenerative osteoarthritis will develop**.

B) Surgical Options

Surgery offers much higher success rates and is advised for:

- Most dogs
- Reluxations after closed reduction
- Any fracture-associated luxation
- Chronic luxations
- Active pets or working dogs
- Cases where early return to function is desired

Several surgical methods exist:

- **Toggle Pin Stabilization**
- Capsulorrhaphy (repairing the joint capsule)
- Suture/stay sutures around the pelvis
- Transarticular pinning (rarely recommended now; more complications)
- Extra-articular suture stabilization
- Femoral Head Ostectomy (FHO) — salvage
- Total Hip Replacement — for chronic or dysplastic hips

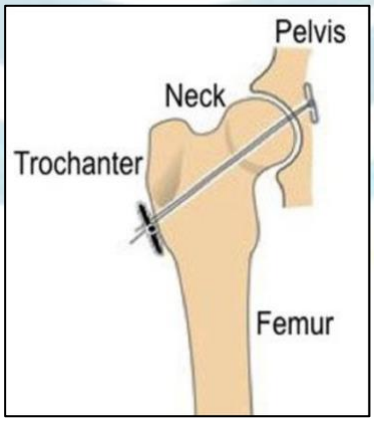
Among these, Toggle Pin Stabilization has become the preferred approach for many surgeons due to its strength and reliability, with preservation of a normal joint function. FHO can be used in selected cases (degenerative changes already present on hip, fractures, or excessive delay in treatment).

5) What is Toggle Pin Stabilization?

It is an internal surgical technique where the surgeon **reconstructs the torn ligament of the femoral head using a synthetic implant**.

How it works:

A special **toggle pin (metal cylinder)** is anchored on the inside of the pelvis within the acetabulum.
A strong, medical-grade suture (often braided fibre-like FiberWire or similar) passes through the toggle.
The suture travels through a small drilled tunnel in the femoral head and neck.
The suture is tied under tension on the femur, pulling the femoral head securely back into the socket, replicating the natural ligament.
The joint capsule is repaired if possible.
This recreates the “centre point” that normally keeps the hip seated correctly.



6) Advantages of Toggle Pin Stabilization

Toggle pin repair is favoured by our team because it provides:

- Very strong, central stabilization
- It **replaces the torn ligament** at its natural location.
- Excellent resistance to reluxation
- Reported **success rates 85–95%,** depending on study and case selection.
- **Minimally invasive** relative to other surgeries
- Only **small drill tunnels** required, **avoiding large implants**.
- Maintains normal anatomy and limb function
- Unlike FHO, the joint keeps its natural shape.
- Works even when the joint capsule is severely torn
- Some surgical methods rely heavily on an intact capsule — toggle pins do not.
- Good for dogs and cats of all sizes

From **small cats and terriers to large-breed working dogs.**
Excellent long-term outcomes
Most pets return to **full athletic ability with minimal arthritis** compared to conservative methods.

7) Disadvantages (rare but important)

- Requires anaesthesia and orthopaedic surgical expertise

- **Not suitable if:**
  The **acetabulum is fractured**
  The **femoral head** is severely deformed
  There is chronic luxation with **severe arthritis**

- **Implants can potentially break or loosen if post-op restrictions are not followed**
- Slight risk of **drilling errors** damaging joint cartilage (Use some experienced hands)

8) Other Surgical Options

- **Capsulorrhaphy**
  Repair of the joint capsule — works only in very fresh injuries where the capsule is not too damaged.
  Reluxation rate: 20–40% in many studies.
- **Extra-capsular sutures**
  Sutures placed around pelvic bones for tension.
  Moderate success, but not as strong or consistent as toggle pin.
- **Transarticular pinning**
  Pins across the joint — not recommended due to complications (cartilage damage, migration).
- **FHO (Femoral Head Ostectomy)**
  Removal of the femoral head — salvage procedure.
  Best for:
  Cats
  Small dogs
  Chronic luxations
  Cases where fixation isn't possible

- **Total Hip Replacement**
  Gold standard for chronic dysplasia + luxation or severe degenerative changes.
  Not typically used for fresh, traumatic luxations.

9) Surgical success rates and prognosis

Toggle Pin Success Rates:

Dogs: 85–95% regain excellent function
Cats: 90–95%
Lower re-luxation rate than closed reduction or capsulorrhaphy
Most pets return to normal or near-normal movement
Time to functional recovery: usually **4–8 weeks**, faster than many other methods.
Return to **athletic activity: 2–3 months** in most cases.

10) Complications and realistic rates

Complication	Approx. rate	Notes
Reluxation	5-15%	Lower than most alternative methods
Infection	<5%	Usually manageable
Implant / Suture failure	5- 10%	Often due to excessive activity too early
Temporary Lameness	Common, early	Improves with time
Arthritis development	20-40% long term	Usually mild and manageable
Sciatic nerve irritation/injury	1-3%	Rare but possible

Overall, **toggle pin stabilization** is considered one of the **most reliable and biomechanically sound** surgical techniques for hip luxation.

11) Recovery and aftercare

Strict rest is essential for 6–8 weeks, including:

- Crate rest or small room confinement
- Leash walks only for potty breaks
- No running, jumping, or playing
- Non-slip floors

Ice packs early, then gentle heat
NSAIDs and pain relievers as prescribed
Physical therapy after 3–4 weeks (range of motion, underwater treadmill if vet-approved)- Get in touch with a professional physiotherapist.

Follow-up X-rays at:

- 2–3 weeks
- 6–8 weeks
- Sometimes 3 months
- Returning to unrestricted activity too early is the #1 cause of failure.

12) Long-term expectations

Most dogs and cats treated with toggle pin stabilization:

- Walk normally
- Can run, climb, jump once cleared

- Experience little to no long-term pain
- Develop mild arthritis, but usually minimal compared to other techniques
- Do not require implant removal
- The majority live completely normal lives after healing is complete.

13) Selected Veterinary References

- ACVS – Hip Luxation in Dogs and Cats
- VCA Hospitals – Hip Dislocation
- Fossum, T. – Small Animal Surgery (5th Ed.) — Hip Luxation & Toggle Suture Techniques
- Rochat & Payton, 2000, Vet Surg — Toggle pin/suture stabilization outcomes
- Denny & Butterworth – A Guide to Canine and Feline Orthopaedic Surgery
- Pooya et al., 2019, J Small Anim Pract — Comparison of methods including toggle pin stabilization
- McLaughlin et al., 2011, VCOT — Biomechanics and long-term outcome of toggle suture techniques

Bottom Line

Hip luxation is a painful orthopedic emergency requiring **prompt treatment**.
While closed reduction works in selected cases, surgery (especially toggle pin stabilization) provides much higher stability and lower relapse rates.
Toggle pin stabilization is one of the most effective, reliable, and widely used surgical solutions for fresh hip luxations in dogs and cats.
With proper repair and careful aftercare, most pets return to a **normal, active life**.