香港獸醫專科服務

HONG KONG VETERINARY SPECIALTY SERVICES

Skin & subcutaneous tumours in cats

How we figure out what a lump is?

1) Your vet will usually start with a fine-needle aspirate (FNA) or a biopsy to identify the tumour type.
2) After any removal, a pathology report tells you whether the mass was taken out with clean ("complete") margins—i.e., no tumour cells at the cut edge. Clean margins generally mean a lower chance of regrowth for most tumour types. Early work-up and good first-time surgery matter a lot for cats, because some feline tumours (especially injection-site sarcomas) send microscopic "fingers" farther than you can see or feel.

Feline injection-site sarcoma (FISS)

- **What it is**: A locally infiltrative sarcoma that can arise at prior injection sites (e.g., vaccines, long-acting meds). It behaves aggressively locally (not because injections are "bad," but because a tiny minority of cats develop an over-the-top tissue reaction that can transform).

- **Surgery (go big from the start):**
  Best practice is radical, en-bloc excision with at least 3 cm—and preferably 5 cm—lateral margins and two deep fascial planes (or bone) as the deep margin. This usually means referral to a surgical specialist and pre-op imaging (CT/MRI) to plan margins. Starting big at the first surgery gives the best odds of durable control.

- **Why so wide?** Incomplete resection is a major driver of rapid recurrence—sometimes within weeks—so "narrow" or **shell-out removals are strongly discouraged**!

- **When we add radiation/chemo:**
  1) Radiation therapy (pre- or post-op) is commonly paired with surgery to tighten local control when margins are close or anatomy is tight.
  2) Chemotherapy is considered in select cases; evidence for survival benefit is mixed, so decisions are individualised.

  Owner takeaway: For FISS, think surgery specialist planning + big first surgery (± radiation). That strategy consistently tracks with better long-term control.

Feline cutaneous mast cell tumour (MCT)

- **What it is:** A mast-cell cancer of the skin (different from the splenic or intestinal forms). In cats, most skin MCTs behave benignly compared with dogs.

- **Surgery:**
  Simple, complete excision is often curative for solitary mastocytic (common) skin MCTs. Many studies report low local recurrence when removed cleanly; multiple tumours or nodal spread signal a more guarded outlook. Unlike dogs, margin width (millimetres vs centimetres) doesn't consistently predict recurrence in feline skin MCT if the mass is cleanly removed.

- **Owner takeaway:** For a single skin MCT, expect an excellent outcome after straightforward surgery; more extensive staging/treatment is reserved for multiple, recurrent, or visceral disease.

Squamous cell carcinoma (SCC) of the skin (esp. nasal planum & ear tips)

- **What it is:** A UV-associated skin cancer, especially in fair-skinned, sun-exposed cats (nose leather, ear pinnae, eyelids). Early lesions are shallow/crusty; deeper ones can be invasive.

- **Treatment options** (picked by size/depth & location):
  Surgery provides excellent control for resectable lesions (e.g., partial pinnectomy/planectomy).

- **Photodynamic therapy (PDT)** is a great option for superficial nasal planum SCC: published series show high response rates—~84–96% overall response, ~72–85% complete response—with good cosmetic results; recurrence can occur over time and depends on depth.

- **Radiation** (including strontium-90 for very superficial disease) is another skin-sparing option with encouraging control times.

- **Owner takeaway:** Catch it early and you may avoid bigger surgery—PDT or surface radiation can work beautifully for thin lesions; thicker or recurrent tumours are best served by surgery.

Cutaneous & subcutaneous hemangiosarcoma (HSA)

- **What it is:** A malignant tumour of blood-vessel cells. In cats it's uncommon, but important to distinguish skin-only (dermal) from under-the-skin (subcutaneous) and visceral disease.

- **Why location matters:**
  Cutaneous (dermal) HSA: With aggressive local excision, many cats achieve good long-term control.
  Subcutaneous HSA: More biologically aggressive—higher local recurrence and tumour-related death rates than the dermal form.
  Visceral HSA carries the worst prognosis.

- **Owner takeaway:** If truly skin-confined and completely removed, outcomes can be very good; deeper disease needs fuller staging and a more guarded discussion.

Basal-cell–type tumours / Trichoblastoma (very common & usually benign)

Cats get lots of hair-follicle tumours. Trichoblastoma—historically called "basal cell tumour" in cats—is common and typically benign.

- **Surgery:** Narrow surgical excision is usually curative; recurrence is uncommon. True malignant counterparts are rare.

- **Owner takeaway:** These are among the best-case skin tumours—simple removal typically solves it.

Lipoma & infiltrative lipoma (less common in cats than dogs)
Lipomas (benign fatty lumps) are less common in cats; most need removal only if they bother the cat or interfere with function. Infiltrative lipoma is rare but behaves more aggressively locally (grows into muscle/fascia) and can recur without wide excision; radiation can be considered when complete removal isn't possible (evidence largely extrapolated from dogs).

Other "lump" categories you'll meet

- Papillomas (warts): uncommon in cats; some regress, some are related to chronic irritation.

- Melanocytic tumours: much less common in feline haired skin; when present, behaviour is variable—pathology drives the plan.
- Cutaneous lymphoma (epitheliotropic T-cell): presents with plaques/ulcers/itch; **it's not a surgical disease—managed medically (oncology care).**

How wide do we cut? (typical surgical margin thinking in cats)

- **FISS:** ≥3–5 cm lateral plus two deep fascial planes (or bone) whenever anatomy allows; plan with advanced imaging. If that isn't possible safely, post-op radiation is commonly advised.
- **Cutaneous MCT:** Complete, conservative excision is often enough for a solitary skin lesion. Routine "huge" margins aren't usually necessary in cats if pathology confirms a simple, well-differentiated cutaneous MCT and margins are clean.
- **SCC** (nose/ears/eyelids): margins depend on depth. Superficial disease may suit PDT or surface radiation; thicker lesions do best with surgical removal (e.g., partial pinnectomy/planectomy).
- **Dermal HSA:** Wide local excision; deeper (subcutaneous) lesions require wider planning and staging.
- Trichoblastoma/basal-cell type: Narrow excision is typically curative.

Complications after skin-tumour surgery (what to expect)

Most cats recover smoothly. The main issues we watch for are:

- **Wound-healing problems** (most common): swelling, seroma (fluid pocket), redness, mild infection, or a bit of the incision opening—especially when closures are tight or reconstructions are large (as with FISS). These are typically manageable with rest, drains/bandages, and meds. (Complication rates vary by site/size; larger FISS resections and reconstructions naturally carry more risk than small lump removals.)
- **Tumour-specific issues:**
    1) MCT: transient redness/itching from histamine release is common; your vet may use antihistamines/acid reducers around biopsy/surgery. Serious systemic reactions with skin-only feline MCT are uncommon when managed proactively.
    2) SCC treated with PDT or surface radiation: usually mild, self-limiting local irritation/crusting during healing; the upside is tissue-sparing control for thin lesions.

Good news: For most feline skin tumours, complications are temporary and don't change long-term control.

Practical "how this plays out" examples

1) Cat with a firm mass between the shoulder blades → biopsy = FISS
→ Plan: CT/MRI planning, then radical en-bloc excision (≥3–5 cm laterally + two fascial planes deep), often with reconstructive techniques; consider radiation. This first surgery is the big one—and the most important for preventing regrowth.

2) Cat with a single, pea-sized, hairless pink nodule on the head → FNA/biopsy = cutaneous MCT

→ Plan: Complete but conservative excision. Often curative; further therapy rarely needed unless there are multiple lesions or nodal/visceral involvement.

3) Fair-faced cat with crusty, shallow sore on the nose → biopsy = superficial SCC
→ Plan: If superficial, consider PDT (owner-favoured for cosmesis) or surface radiation; deep or recurrent lesions do best with surgery. Published complete/overall response rates for PDT are high (≈72–85% CR, 84–96% ORR) in selected cases.

4) Cat with dark red skin mass → biopsy = dermal HSA
→ Plan: Wide local excision. Many cats enjoy long-term control after complete removal; deeper (subcutis) disease warrants a more guarded conversation and thorough staging.

5) Older cat with a smooth, well-circumscribed skin lump → histology = trichoblastoma ("basal-cell-type")
→ Plan: Simple excision is typically curative; recurrence is uncommon.

Home care & monitoring

6) Protect the incision (cone/E-collar) and limit activity until cleared.
Call promptly for increasing redness, swelling, discharge, wound opening, lethargy, or poor appetite.

7) Sun-smart habits for SCC-prone cats: keep midday sun short; consider pet-safe UV barriers for ear tips/nose where appropriate.

8) Pathology review (usually within a week or so) guides whether to observe, re-excise, or add radiation.

9) Monthly "lump checks" at home—earlier detection keeps options simpler.

Key takeaways

- Many feline skin tumours—trichoblastoma ("basal cell"), solitary cutaneous MCT, dermal HSA—are locally curable with well-planned surgery.
- FISS is the big exception: it needs specialist planning and radical first-time surgery (≥3–5 cm + two deep planes), often paired with radiation, to minimise recurrence.
- SCC caught early can often be treated with tissue-sparing PDT or surface radiation; deeper disease is best managed surgically.
- Most post-op issues are minor and manageable; your vet will personalise risk based on tumour type, size, and location.

Selected English-language veterinary references

- FISS surgery guidance: Phelps HA et al. Radical excision with five-centimeter margins (JAVMA, 2011); Hartmann K et al. ABCD guidelines—≥3–5 cm margins & deep planes (2015).
- Comprehensive FISS review: Ladlow J. Injection Site-Associated Sarcoma in the Cat (open-access overview of work-up and treatment).
- Feline cutaneous MCT: Henry C & Chamisa. Mast Cell Tumors in Cats—good outcomes for solitary skin MCT with conservative, complete excision.

- SCC (nasal planum) treatments: Bexfield NH et al. PDT of superficial nasal planum SCC: 55 cats—85% complete response; Lino M et al. 2019—72% CR, median OS ~835 days in selected cohorts; Hammond GM (Sr-90) surface radiation outcomes.

- Cutaneous vs subcutaneous HSA: McAbee KP et al. 2005—good prognosis for cutaneous HSA after aggressive excision; Johannes CM et al. 2007—subcutaneous form more aggressive; visceral poorest.

- Trichoblastoma / “basal-cell-type” tumours: Patel P et al. 2020—favourable prognosis, low recurrence; Merck Vet Manual & TVP summaries: narrow excision typically curative.