

DIAGNOSTIC TECHNIQUES

SKIN BIOPSY

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WHEN DO I DO IT?

- Sample any lesion(s) that look unusual or behaves in an unexpected manner
- Consider a skin biopsy if the animal has failed to respond to an empirical course of therapy
- Consider a skin biopsy if the animal is systemically ill
- Biopsy any nodule or non-healing ulcer as these may be neoplastic
- If the potential therapy is potentially dangerous or expensive a diagnosis should be confirmed with histopathology
- To rule out other diagnoses

WHAT CAN I FIND?

- Confirm a clinical diagnosis
- Rule out a suspected clinical diagnosis

WHAT DO I NEED?

- Skin punch biopsy (4 mm or 6 mm), thumb forceps, iris scissors, scalpel blade if performing a wedge biopsy, needle holder, suture material, 10% formalin

SKIN BIOPSY EQUIPMENT VIDEO: [ExcellenceInDermatology.com](https://www.excellenceindermatology.com) → [Education Library](#) → [Videos](#)

HOW DO I DO IT?

- Local anesthesia with sedation and pain management if needed
- Skin is *not* prepped
- If necessary, gently clip the overlying hair
- 1-2% lidocaine or bupivacaine
- Sodium bicarbonate to reduce stinging (1:9)
- 0.1ml bicarbonate to 0.9ml lidocaine
- Epinephrine 1:1,000 into hub of the syringe
- 0.75-1cc per site, use 25 gauge needle
- Recommended safe dose of 2% lidocaine
- Dogs: 1-1.5 ml/ 4kg
- Cats: 0.5-0.75 ml/ 4kg (Dilute 50:50 with saline if larger volume needed)
- Wait up to 10 minutes for the injection to take effect

SKIN BIOPSY PROCEDURE VIDEO: [ExcellenceInDermatology.com](https://www.excellenceindermatology.com) → [Education Library](#) → [Videos](#)

TIP

- Take several samples to increase the likelihood of selecting a diagnostic area
- Request a complete microscopic description, not just a diagnosis, as this may help a dermatologist determine the cause of the problem
- Send the samples to a pathologist with an interest in dermatology as they are more likely to be able to match the microscopic changes with a specific etiologic diagnosis
- Provide the pathologist with a list of differential diagnoses and describe the signalment, clinical pattern and lesions seen, and past therapies

TECHNIQUE IMAGES : SKIN BIOPSY



Multiple syringes filled with allergens for intradermal testing



Equipment needed for performing a skin biopsy



The punch is held at right angles to the skin and turned in 1 direction applying pressure



Remove by gently grasping the base of the punch with forceps, elevating and cutting.