

Pyoderma

- Pyoderma is a bacterial infection of the skin.
- It varies in severity from a superficial rash to deep, pus-filled ulcerations.
- Problems that can lead to pyoderma include parasites, allergies, and hormonal imbalances.
- Treatment of pyoderma is aimed at clearing the infection and treating the primary cause.

What Is Pyoderma?

Pyoderma is a bacterial infection of the skin. It can occur when the skin's natural defenses break down, allowing common skin bacteria to multiply out of control (called *overgrowth*). Bacteria from another source may also take hold when given the opportunity. Other organisms, such as yeast and fungal organisms, can take advantage of the skin changes that occur with pyoderma and establish their own infections. Dogs and cats of any age can be affected by pyoderma.

What Are the Signs of Pyoderma?

The clinical signs of pyoderma may include:

- Rash
- Itching
- Crusts, scales
- Pus-filled blisters (called *pustules*)
- Hair loss
- Oozing sores

What Are the Causes of Pyoderma?

Any disruption in the immune system's ability to keep bacteria from overgrowing on the skin can lead to pyoderma, including the following:

- **Physical damage to the skin** (bite wounds, bug bites, scratching, ringworm, mange, burns, chemical contact irritation, tumors)
- **Allergies** to fleas, foods, pollens, or other allergens
- **Immunosuppression** caused by certain medications, viral disease, cancer, liver disease, thyroid disease, or other illness

How Is Pyoderma Diagnosed?

If your veterinarian looks at your pet's skin and suspects pyoderma, he or she may perform diagnostic tests to confirm a bacterial infection and determine the primary cause. The following tests may be among your veterinarian's recommendations:

- **Skin testing**, which may include the following:
 - **Adhesive tape prep:** Placing a small strip of adhesive tape against the pet's skin or hair for a few seconds permits skin cells and other debris to stick to the tape. When your veterinarian examines the tape under a microscope, bacteria, yeast, inflammatory cells, cancer cells, skin parasites, and other abnormalities can often be seen.
 - **Skin scrape:** Gently scraping the surface of the skin with a dull scalpel blade or similar instrument can remove cells just below the skin's surface. These cells are then examined under a microscope. Mites that cause mange can be identified using this technique.

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- **Bacterial culture:** A swab of the skin (or of a pustule) can be sent to the lab to determine what bacteria are present and which antibiotics should be used to treat the infection.
- **Fungal culture:** Hairs from infected skin can be sent to the lab to be tested for ringworm or other fungal infections.
- **Biopsy:** After a local anesthetic or sedation is administered to the patient, a small piece of skin can be removed and sent to the lab for evaluation.

Common Conditions

- **Blood testing** looks for internal disorders that may have affected the skin's barriers to infection. More extensive testing may be pursued to look for thyroid disease or other specific disorders.
- **Allergy testing** determines if an allergy exists and whether specific treatment for the allergy is possible.

How Is Pyoderma Treated?

It is very important to find the underlying cause of pyoderma to effectively treat the infection and help

prevent it from happening again (recurring). The infection itself can usually be taken care of with a course of oral or topical antibiotics prescribed by your veterinarian. However, the underlying cause, whether it is parasites, hormonal imbalances, or allergies, must be specifically addressed to prevent the problem and keep it from recurring. When a pet's primary disease is under control, chances are good that the animal will recover from pyoderma and not have episodes of recurrence.