

Cat Tips

Is There a Silent Paw Problem Affecting Your Cat?

Have you checked your cat's paw pads recently? Discover the subtle signs of a rare disease that could be affecting your cat, learn how to diagnose it and find out the treatment options to keep your cat healthy and active.

Analysis by Dr. Karen Shaw Becker

STORY AT-A-GLANCE

- Pillow foot, or feline plasma cell pododermatitis (PCP) is a skin disease that affects the paw pads in cats; there
 may be a link between feline immunodeficiency virus (FIV) and PCP since about 50% of cats with pillow foot
 are FIV-positive
- Cats with pillow foot have swollen, smooth paw pads that can ulcerate, resulting in sores and limping or lameness
- An early, accurate diagnosis is necessary in order to give cats with PCP the best chance at resolving the condition; unfortunately, the problem can recur, requiring long-term management
- Conventional treatment involves oral immunomodulators to address the immune response, and corticosteroids to address inflammation; rarely, surgery to remove pad tissue is required

A cat's paws perform a variety of essential daily functions, such as cushioning, regulating body temperature through sweat glands, and providing traction so kitty can grip surfaces as he climbs, jumps, or runs. Paw pads also serve as a barometer of a cat's health, since changes in the look or feel of them can signal an underlying health issue.

Pillow foot, or feline plasma cell pododermatitis (PCP) is a relatively rare skin disease that affects the paw pads in cats. Plasma cells are a type of white blood cell activated in response to an infection or an inflammatory process. The plasma cells produce secretions that build up in the paw pad, causing swelling that resembles a pillow.

It appears there's an immunological basis for PCP, but a cause for the immunologic problem has yet to be uncovered. According to veterinary dermatologist Dr. Wendy Brooks, some studies have found a link between pillow foot and **feline immunodeficiency virus** (FIV) infection, so it's important to screen affected cats for FIV.¹

As Brooks explains, exactly what the link is between the two conditions is unclear, but approximately 50% of cats with PCP are FIV-positive. In addition, other cats have responded to a food allergy diet trial, which suggests allergy may be involved in some cases. "It may well be that many factors can be involved in creating this disease," she says.

Symptoms of Pillow Foot

Cats with PCP have paw pads on multiple feet that:²

Are swollen or puffy, and smooth

- Aren't ulcerated initially, but have deep fissure lines
- Are deep pink or purple in color with multiple white striations
- May indent in response to pressure, then become puffy when pressure is removed
- Eventually may break open (ulcerate), resulting in limping or lameness

Rarely, the following symptoms are also present as a result of the increased number of plasma cells being generated in the body:

- Swelling at the bridge of the nose
- Upper respiratory tract infection
- Inflammation of gum tissue and the lining of the mouth (stomatitis)
- Glomerulonephritis (inflammation and dysfunction of the capillaries in the kidneys)
- Eosinophilic granuloma (a mass or nodular lesion containing white blood cells called eosinophils, usually found on the back of the thighs, on the face, or in the mouth)

Diagnosing Pillow Foot

Most cats with PCP seem to feel fine aside from paw pad discomfort, so often the condition isn't noticed immediately.

"During routine interactions or when trimming the cat's nails, owners may see that the larger pads are soft, squishy, or puffy — sometimes we describe them as feeling like bean bags — and have an open sore," says Dr. Christina Gentry, a clinical assistant professor in dermatology at the Texas A&M School of Veterinary Medicine & Biomedical Sciences.

"In some cases, the first time an owner notices an issue is when the cat is lame, meaning they are less active or not jumping around as much. Other times their veterinarian will notice the swelling and any potentially open sores on the paw pads during physical exams." ³

Since the symptoms of PCP are seen in other conditions as well, it's important to accurately diagnose the issue so the affected cat can receive appropriate care.

"Often, pillow foot can be diagnosed during a physical exam if multiple paw pads have a sore or if there is a history of sudden lameness without any known trauma or other skin lesions," says Gentry.

"If the case is more subtle or owners want additional confirmation prior to starting treatment, a tissue biopsy can provide a definitive diagnosis. A fine needle aspirate, which involves poking a needle into the tissue and collecting cells to put on a slide for microscopic analysis, would also support the diagnosis if lots of plasma cells are present."

Treatment Options

Once a kitty is diagnosed with pillow foot, the treatment protocol will depend on the specifics of the cat's condition, the severity of symptoms, and the veterinarian's preferred approach. As Gentry explains:

"Oral immunomodulators, which are drug treatments to help regulate the body's immune system, are the standard treatment and include doxycycline, an antibiotic with immunomodulating properties; and corticosteroids or modified cyclosporine to reduce inflammation. In cases that do not respond to medical management, the pad tissue can be surgically removed."

If your cat requires intermittent (off-and-on) or long-term treatment, it's important to work closely with your veterinarian, as follow-up appointments will be necessary to monitor your kitty's progress and ensure she's comfortable. Per Gentry:

"Their veterinarian will slowly taper the immunomodulators and watch for flare ups, but if the condition returns or worsens as the medications are lowered, they may adjust the dose or change medication. Some cats require medication for one or two months, while others require an immunomodulator long term, ranging from a few months to a few years."

Early detection, an accurate diagnosis, and the appropriate treatment protocol are the keys to effective management of pillow foot. Left untreated, the higher levels of plasma cells and globulins (a type of protein) triggered by PCP can affect other organs, especially the kidneys, and in rare cases can be fatal.

In cases where surgery is required, recovery time is typically between two and four weeks. How long it takes a cat to fully recover is based on several factors, including how immobile he or she is during the healing process to help decrease trauma to the surgical site, how extensive the tissue damage was, and the ability of caregivers to keep the paw pads clean.

Sources and References

¹ <u>Veterinary Partner, November 22, 2022</u>

² PetMD, July 13, 2023

³ Texas A&M University Veterinary Medicine & Biomedical Sciences VMBS News, May 2, 2024