

## **Yeast Infections in Dogs**

By Dr. Karen Becker

Hi, I'm Dr. Karen Becker. Most pet owners have heard the term "yeast infection" before. But what many pet owners don't know is exactly what causes a yeast infection. Sometimes dog owners assume that their pets are meant to have kind of a stinky doggie smell when really, their dogs are having a yeast problem.

Yeast is a spore-like type of fungi that reproduces through a process called budding. Budding just means that portions of the organism's cell body breaks off to form a whole new yeast organism. Yeast infections of the skin and of the ears are very common in dogs and are caused by an organism called *Malassezia pachydermatis*.

These organisms are normal inhabitants of your dog's skin and ears. A normal amount of yeast becomes an infection when the organism begins to reproduce uncontrollably. When the yeast production gets out of control, the organisms invade and colonize areas of the dog's body and skin beyond where they would normally live and in higher numbers. This means yeast are opportunistic. They flourish in a body when the body isn't healthy or in perfect balance.

### **Risks and Manifestations**

Most dogs with yeast infections have immune system imbalances and can't control the yeast overgrowth. Yeast infections can also occur during and after antibiotic therapy, when the body's beneficial bacterial levels that maintain healthy skin defenses have been affected by the antibiotic drugs.

Yeast can also be a rampant problem for pets that are immunosuppressed. Some pets are born with weak immune systems like those animals that are born immunoglobulin-deficient. There are also certain drugs, like steroids and chemotherapeutic agents that suppress an animal's immune system and can open the door to yeast infections.

I see yeast infections in clinical practice most commonly associated with allergies. An allergy is an immune system over-reaction, so vets use immunosuppressive steroids like prednisone, dexamethasone, and cortisone to mute or turn off a body's immune response, making it incapable of managing normal flora levels. This, of course, can lead to yeast overgrowth.

Pets with allergies that go on to develop secondary skin infections with bacteria are then given antibiotics. But antibiotics destroy all bacteria – the bad and the good – which can also lead to yeast overgrowth. The more antibiotics that are given, the worse the yeast infections tend to be. Allergic dogs can also develop allergies to their own yeast, making the problem even worse.

Allergy testing sometimes shows that dogs are actually having an allergic response to their own natural flora as well. The situation can get very complicated. Pets with an underactive immune system (which is identified by immunoglobulin A (IgA), immunoglobulin M (IgM), and immunoglobulin G (IgG) testing), as well as pets that have overactive immune systems and allergies can both be affected by chronic yeast infections.

## Symptoms

A yeast infection can occur anywhere on a dog's skin – including between the toes, in the armpits, and in the deep wrinkles and folds of the skin. But the most common location for a yeast infection is your dog's ears.

At a minimum, a dog with a yeast infection feels uncomfortable. The discomfort can range from very mild to terrible. Almost all dogs with a yeast problem become extremely and chronically itchy at the site of the infection. If it's a problem with her paws, she will not be able to leave them alone. The same goes for her ears. There can also be a lot of butt scooting, and there can also be a lot of digging, tearing wherever the yeast tends to occur on the body. This terrible itching can lead to desperate scratching and chewing, which can then result in a lot of self-induced trauma and a lot of pain.

The other thing that most pet guardians notice is the smell. Yeast has a very distinctive odor, which has been described as similar to moldy bread or cheese popcorn or corn chips. It's just as musty, very stinky smell. Some people refer to a yeast infection on a dog's paws as "Frito feet." In general, it's a pungent, musty, and unpleasant smell. Sometimes, it can be really overpowering.

I'm sensitive to the smell of yeast so when I have a patient come in my exam room, the owner may not know that the dog has a yeast problem but I can smell it six to 10 feet away. I've met many owners who have had yeast going on for so long in their dogs that they no longer recognize their pets stink. Sometimes I hear owners say, "I thought they were supposed to smell like that," when they just have become so accustomed to their dogs chronic yeast problem.

Other signs of a yeast infection include areas of skin irritation, redness, and inflammation, especially in and around the ears, around the toes and pads of the feet, the nasal or facial folds around the anus, under the armpits or the neck, and sometimes around the tail base. There might also be hair loss, scaly or oily skin, or a greasy hair coat.

Sometimes in chronic, severe yeast infection there can be dark, very thick skin. Sometimes there can be secondary bacterial infection as well. There can also be a smelly, yellow-green discharge from the ears, most commonly. But other areas of the body that are infected with yeast can produce raised, scaly areas, or patches of skin. There can also be behavior changes caused by the itching and pain. That can range from depression, loss of appetite, to actually anxiety and aggression.

I've seen some dogs where their itch is so intense, they're digging at their paws. When you try and stop them, they will become aggressive because their itch is so intense and so overwhelming. It's a very sad situation.

## Diagnosis

Definitive diagnosis by a vet of a yeast infection is accomplished by either by cytology (which is looking at a skin swab under a microscope) or by culturing (which is submitting a sterile swab of the skin to a lab where the cells are grown and then identified in a petri dish).

If there's an ear infection, either diagnosed or suspected, it's extremely important to know whether the eardrums are still intact before putting any liquids, gels, cleansers, or other medications down in the ears. If one or both of the eardrums have been ruptured, putting products into the ear canals can

damage the middle and inner ear. Most dogs with a yeast infection have it in more than one spot. For example, they can have it on all four paws, both ears, or in some cases, all over the whole body.

### **Nutritional Recommendations**

Hands down, the most important aspect of addressing chronic yeast is through diet. I'll go so far as to say you that will not be able to address a moderate to severe yeast infection naturally without addressing diet. Regardless of the root cause of why the yeast infection is occurring, nutrition is the most important thing you can think about. The nutrition your dog receives either supports his immune system to keep yeast growth under control, or it does the opposite and exacerbates a yeast overgrowth situation.

If you have a dog that has yeast, I recommend an anti-yeast diet, which is also called an anti-inflammatory diet or a species-appropriate diet.

Yeast uses sugar as a source of energy. Of course, we all know that carbs break down into sugar. The first thing yeasty patients – human or canine – need to do is remove sugar from the diet. And remember that dietary sugar isn't just the white stuff; it's honey and high-fructose corn syrup on the back of the label. Even white and sweet potatoes can feed a yeast problem as well as the tapioca found in grain-free dry foods.

I recommend an entirely grain-free and carb-free diet for patients who have yeast. This step is actually really, really important because you can't effectively deal with a yeast problem without addressing this aspect of your pet's diet, regardless of how many supplements and baths you put your dog on. Your dog's nutrition should help keep his normal flora levels balanced.

I also recommend adding a few natural, antifungal foods to your pet's diet. For example, a small amount of fresh garlic, thyme, parsley, and oregano to help naturally reduce the level of yeast in your dog's body. Adding fermented veggies, if your dog will eat them, can also be really beneficial. Raw, unfiltered apple cider vinegar and coconut oil are also really good natural antifungal additions that can be added right to your pet's food.

### **Disinfection Protocols**

At the same time we're addressing a yeasty pet's diet, we also need to begin a disinfection protocol to treat the areas where the yeast infection is occurring. Yeast love a moist environment, and it grows in crevices, like between your dog's toe pads, in the armpit, the creases of his groin, or around the tail base. It's not enough to just apply a cream, salve, or antifungal solution to those parts of the body.

The parts of the body that have a yeast infection must be disinfected and regularly disinfected. I recommend at least once a day, so that the topical remedies that you apply after you've cleaned the area have a chance to work. Applying any topical agent without removing the dead yeast on a consistent basis can actually make the problem much worse.

If your dog's ears are the problem, you'll need to disinfect them daily with either a store-bought solution – in my practice, I use witch hazel – and really large cotton balls. Use as many cotton balls as it takes to remove all of the debris from the ears at each cleaning. I don't recommend you put Q-tips down the canals of your dog's ears, but you can use Q-tips for around the outside for removing that light-yellow

goo, that stinky goo on a daily basis. Keep in mind that some dogs just naturally produce a lot of gunk in their ears and that natural debris or wax needs to be removed every day to avoid yeast and other types of ear infections.

The question is, "How often should I clean my dog's ears?" As often as you need to, to have the ear canals clean and dry. The amount of cleaning depends on the amount of debris that accumulates in the ear. If your dog produces goo on a weekly basis, clean your dog's ears weekly. But if you look in your dog's ears and you can see wax or debris on a daily basis, clean your dog's ears every day. By keeping your dog's ears clean and dry, you can actually prevent yeast infections from occurring, and also yeast infection progressing to a full-blown bacterial infection.

If the yeast overgrowth is on your dog's feet, keeping them clean is essential, and that means dunking them rather than spraying or wiping them down. Yeast grows under the nail beds and in the creases of your dog's feet, which is why the paws must be actually submerged in a foot soak rather than just wiped off.

Depending on the size of your dog, you can actually fashion a foot soak from almost anything that holds water. If your pet is small, you can simply stand her in the bathroom or kitchen sink. For bigger dogs, you can use a sweater tub that you can fill with a hose. You can walk them through it and have them stand. If you're in a small apartment, you can use a coffee can and just plunge your dog's feet down in the can. You want to be able to dunk each of your dog's foot in the can and then pat them dry.

You can use this solution as many times a day as necessary to keep your dog's feet clean and effectively reduce itching. There's no need to rinse if you use this solution. Just pat the paws dry. Leaving the solutions dried on your dog's paws provides an antifungal effect that can actually reduce licking and chewing. Remember that hydrogen peroxide can lighten your dog's fur, so keep that in mind.

For skin yeast infections, I recommend bathing with a natural antifungal shampoo. I tend to opt for tea tree oil or an herbal shampoo. You can bathe as often as necessary, but honestly, minimally at least once a week. Since grains and carbs feed yeast, I don't recommend using any oatmeal-based shampoos for pets with allergies or yeast infections.

### **Natural Antifungal Rinses**

The good news is that I have managed many, many patients with yeast and terrible itching solely through diet and baths, two to three times a week. Medicated baths are an annoying, frustrating thing to have to consider as a pet parent. It takes time but actually, it's a cheap and very effective way to manage yeast and to keep your pet feeling comfortable on a common-sense basis. It's also non-toxic, compared to the antifungal drugs that conventional veterinarians would be prescribing at this time.

I also like antifungal rinses and sprays in between disinfecting baths. A rinse is poured on your dog after a bath and may help extend the number of days in between baths to control yeast. There are several different rinses you can try. I've had success with vinegar, lemon juice, and essential oils. Vinegar and lemon are naturally astringing, so they are drying by nature. They are excellent for dogs with greasy or oily coats. You add one cup of vinegar, a cup of lemon juice, or 10 drops of peppermint oil with 10 drops of lavender oil to a gallon of water. Remember, since lemon juice can also lighten fur, I recommend using vinegar or the essential oil mixes for dogs with dark coats.

After shampooing your dog and rinsing thoroughly, you follow up with your gallon of natural antifungal rinse to knock down the amount of yeast remaining on your dog's skin. You pour the rinse water over your dog's collar, from her neck to the base of her tail, making sure you don't apply it to her head. You rub the solution into her coat and skin, focusing on the areas where she is yeasty. You need to make sure that you get the solution around the armpits, down around the feet, around groin area, and around the tail base. You don't rinse the solution off. You just pour the solution on, rub it in, and then towel dry.

You can also put any of these solutions into a spray bottle and mist the itchy areas throughout day as needed to help control itch and yeast overgrowth. Adding a dropper full of colloidal silver to the spray bottle also adds an additional all-natural antimicrobial agent.

If your dog only has yeast issues in the warmer months of the year, spring and summer are the times when you'll be really focused and vigilant about disinfecting him and making sure his diet is not contributing to a yeast overgrowth problem.

It's important to remember these suggestions aren't magic. It will take some time on any all-natural protocol to see improvement. If these easy, cheap solutions are effective at managing your dog's chronic yeast issues, I'd recommend you continue the carb-free, preferably fresh food diet, year-round to minimize your pet's likelihood of fostering additional opportunistic yeast infections in the future.

### **Helpful Supplements**

There are some supplements your holistic veterinarian may also recommend to assist in re-establishing healthy and normal levels of yeast in your pet's body. Probiotics can be very beneficial, as well as the herbs pau d'arco, goldenseal, caprylic acid, or the more potent 10-undecenoic acid, which are organic unsaturated fatty acids many holistic veterinarians prescribed for stubborn yeast infections.

Unfortunately, some dogs have year-round yeast problems. And no matter what food they're eating, and what remedies their owners are trying to manage their condition, the yeast is just out of control. In which case, it's most likely an immune system issue.

When I have patients with stubborn yeast infections that will not go away, I do immune testing to measure immunoglobulin levels, which are IgG, IgM, and IgA. It's a blood test. Generally these levels are low in a dog with constant yeast overgrowth. If your dog is producing healthy levels of immunoglobulins, he should be able to overcome almost any infection and particularly an opportunistic yeast infection.

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