#### **How a Yeast Infection Occurs**

On the immune system spectrum, balance is in the middle, and that's what you want your dog's immune function to be – balanced.

An underactive immune system can lead to yeast overgrowth, because it can't control the balance. The other end of the spectrum is an overactive immune response where allergies are present. This can also lead to problems with yeast.

When a traditional veterinarian sees a dog with allergies – a sign of an overactive immune system – he or she will typically prescribe <u>steroid therapy</u> to shut off the immune response. (This improves symptoms but does not fix the underlying cause of the allergies.)

When your dog's immune system is turned off with drugs, it can't do its job of regulating and balancing normal flora levels, so your pet ends up with yeast blooms.

When conventional vets see dogs with allergies and possibly secondary skin infections, often they prescribe <u>antibiotics</u>. Antibiotics are well-known to destroy all good bacteria along with the bad, wiping out healthy yeast levels in the process, so these drugs often make a bad situation worse.

Another reason an allergic dog, in particular, can end up with a lot of yeast is he can actually develop an allergy to his yeast. Intradermal tests often reveal that a dog is having an allergic response to his own natural flora.

This situation can be very problematic because the dog's allergic response can affect his whole body. These dogs are often red from the tip of the nose to the tip of the tail – their entire bodies are flaming red and irritated.

So dogs with an underactive immune system or that are immuno-suppressed can end up with a yeast infection, as well as dogs that have overactive immune systems, or allergies.

# Signs and Symptoms of a Yeasty Dog

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

But as a pet owner, you'll be able to tell if your dog has a yeast infection just by her smell. Yeast has a very characteristic odor. Some people think it smells like moldy bread; others liken the odor to cheese popcorn or corn chips. In fact, some people refer to a yeast infection of a dog's paws as 'Frito Feet.' It's a pungent, musty, unpleasant smell.

The odor of a yeast infection is not a normal doggy odor. Healthy dogs don't have a 'doggy odor.' So if your pup has stinky paws or musty-smelling ears, chances are she's dealing with a yeast overgrowth.

Another sign your dog is yeasty is scratching. Yeast overgrowth is tremendously itchy. If it's a problem with her paws, she won't be able to leave them alone. The same goes for her ears. A lot of <a href="butt-scooting">butt-scooting</a> can also be a clue. If your dog is spending a lot of time digging at herself to relieve intense itching, take heed. Whether it's a bacterial or yeast infection, she needs your help to solve the problem.

## **Step #1 in Clearing a Yeast Infection: Address the Diet**

If your pet is dealing with yeast overgrowth, there are a couple of things you'll need to do.

Number one, you must address his diet. It's rare that a dog has yeast in just one spot – one ear, for example. If that's the case with your pet, you can probably get by just treating that ear for yeast and keeping your fingers crossed his immune system responds to re-balance his natural flora.

But if your dog, like the majority, has yeast in more than one spot, for example on all four paws or both ears, or especially if his entire body is yeasty, you have no choice but to look at what he's eating.

Diet is the foundation of health. The way you nourish your dog is either going to help his immune system manage yeast, or it's going to feed a potential or existing yeast overgrowth situation.

I encourage you to put your pet on what I call an 'anti-yeast diet.' The beauty of an anti-yeast diet is it is also an <u>anti-inflammatory and species-appropriate diet</u>. Yeast needs sugar as a source of energy. Carbohydrates break down into sugar. Both MDs and veterinarians advise patients with yeast to get the sugars out of their diets.

Dietary sugar isn't just the white kind added to many pet treats and some pet foods. There are 'secret,' hidden forms of sugar that can also feed yeast overgrowth, for instance, honey. Although honey can be beneficial for pets in some cases, it does provide a food source for yeast. So if your dog is yeasty, you'll need to carefully read his pet food and treat labels and avoid any product containing honey, high fructose corn syrup, and even white potatoes and sweet potatoes.

If your dog has a significant yeast problem, I recommend you go entirely sugar-free. Feed low-glycemic veggies. Eliminate potatoes, corn, wheat, rice – all the carbohydrates need to go away in a sugar-free diet. This is really an important step. I wish I could tell you yeast is easy to treat and avoid without addressing diet, but it isn't. Your pet needs to eat a diet that helps keep his normal flora levels healthy and balanced.

The second thing I recommend is adding some natural anti-fungal foods to his diet, like a small amount of garlic or oregano. These foods are both anti-fungal and anti-yeast and can be beneficial in helping reduce the yeast level in your dog's body.

## **Disinfecting Yeasty Ears**

In addition to providing an anti-yeast diet and anti-fungal foods, the third thing you must do to help your dog overcome a yeast infection is to disinfect yeasty body parts.

This is actually an often overlooked, but common sense, almost-free step in addressing a yeast overgrowth in pets.

In human medicine, it is routine for internists and dermatologists to give patients with yeast specific protocols for cleaning affected parts of the body. The same instruction is rarely given in veterinary medicine, which makes no sense and is really a shame.

Typically, a vet will hand a client with a yeasty dog a cream, salve or dip, with instructions to just keep applying it to the infected area. The problem with this approach is that as yeast dies off, it forms layer of dead yeast on top of layer of dead yeast. Unless you remove the dead layers of yeast and disinfect the skin, adding loads of ointment to layers of dead yeast can actually exacerbate the problem.

So disinfecting the parts of your dog's body that are yeasty is very important. There's no pill or cream that can disinfect your pet – you must do that yourself.

If your pet's ears are yeasty, you'll have to disinfect them daily. Just as some people produce lots of earwax and clean their ears daily, while others produce almost no earwax, the same applies to dogs. Some almost never need their ears cleaned, while others need a daily cleaning.

The frequency is entirely dependent on how much debris your dog's ears produce. So if your Lab has soupy ears throughout the summer months, you'll need to clean them every day during that period.

If you check your dog's ears and they're clean, dry and have no odor, you can skip a day of cleaning. Again, the amount of cleaning should correlate with the amount of debris built up in the ear. If you don't clean out that debris, it won't magically disappear on its own. It will grow from wax, to yeast, to a fulminating bacterial infection unless you deal with it.

You can disinfect your dog's ears with either a store bought solution or with witch hazel and large cotton balls. Use as many cotton balls as it takes to remove all the debris from the ears at each cleaning. Do not put Q-tips down into the canals of your dog's ears.

# **Disinfecting Yeasty Paws**

Yeast thrives in a moist environment and in crevices – between your dog's foot pads, for example, in armpit and groin creases, and around the vulva and anus. So disinfecting those parts of a yeasty dog is really important.

Since the only body parts that sweat on your dog are his nose and the pads of his feet, during hot humid months when yeast tends to thrive, you'll need to disinfect those paws.

Depending on the size of your dog, you can use one of those Rubbermaid sweater boxes filled with water from a hose, or if your dog is small you can just pop him in the kitchen or bathroom sink. If you have a giant size breed, you can try a coffee can or cup filled with water. The goal is to dunk the feet, then pat them dry.

Spraying or wiping down a dog's paws won't get the job done. Yeast lives under the nail beds and in all the creases you can't get to if the paws aren't submerged in a foot soak.

I recommend a gallon of water, a cup of hydrogen peroxide, and 1-4 cups of white vinegar as a foot soak solution. You can use this solution as many times a day as necessary to keep your dog's feet clean. 'Clean and dry' needs to become your mantra.

After you dip your dog's feet in the astringent solution of water/hydrogen peroxide/white vinegar, there's no need to rinse. Just pat the paws dry. Leaving the solution dried on your dog's paws serves as an antifungal and should also reduce licking and digging at the paws.

#### **Anti-Yeast Baths and Rinses**

If your dog has yeast overgrowth on her skin, I recommend disinfecting her entire body with a natural, anti-fungal shampoo. And yes, you can do this as often as necessary.

It's no longer true that you shouldn't bathe dogs regularly. Back in the days of very harsh shampoos made from coal and tar derivatives, this was good advice. But there are now plenty of safe shampoos on the market that will not over dry your pet's skin or damage her coat.

Since carbs and grains ultimately feed yeast overgrowth, I don't recommend you use oatmeal-based shampoos. Oatmeal is a grain which provides a food source for that yeast on your dog's skin.

Use an anti-fungal shampoo made from, for example, tea tree oil or an herbal blend. These will help control the amount of yeast growing on your pet.

I also recommend anti-fungal rinses during the summer months, from one to three times per week after shampooing. I use a gallon of water with a cup of vinegar or a cup of lemon juice. You can also use 20 drops of peppermint oil. All three will make your pooch smell nice.

After shampooing with, say, a tea tree shampoo and rinsing thoroughly, follow with one of these natural anti-fungal astringent rinses to knock down the amount of yeast.

You should never pour these rinses over your dog's head or into her eyes. Pour from the collar, back. Pour the gallon of solution over her and rub it into her coat and skin, focusing on body parts that tend to grow yeast -- armpits, feet, groin area and around the tail. Then towel dry without rinsing. Your dog will not only feel better, the yeast won't replicate as quickly.

One word of warning about using both lemon juice and hydrogen peroxide: they can bleach a black dog's fur. If you have a black coated dog, you should go with vinegar to avoid a lightening effect.

## For Dogs with Stubborn or Recurring Yeast Infections

For many dogs, yeast problems are seasonal. When the temperature and humidity levels rise each year, they get yeasty and stinky. If this is the case with your dog, the summer months are when you'll need to be vigilant about disinfecting your pet and addressing any dietary issues that might be contributing to the problem.

However, if your dog has year-round yeast problems – whether it's 90 degrees outside or the dead of winter – you should be thinking about potential immune system issues.

If your dog is overwhelmed with an opportunistic pathogen like yeast, it's likely his immune system isn't operating at 100 percent.

In my practice, when I see a pet with a stubborn yeast infection, I do immune testing to measure his immunoglobulin levels (IgG, IgM and IgA). 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.

## **Probiotics**

Probiotics are beneficial bacteria that help populate your dog's gut with "good" bacteria to support her digestive health.

Balanced intestinal flora are not just important for digestive health ... but 80% of the immune system lives in your dog's gut, so this will strengthen her immune system as well

You can give your dog probiotic supplements or probiotic whole foods.

# **Probiotic Supplements**

There are many probiotic supplements available for both dogs and humans and the choices can be overwhelming. A good rule is to look for a refrigerated product. Ask your specialty pet store or health food store for advice on a quality brand.

Dosage: If you buy a product made for dogs, follow the dosing directions on the container. You can also buy a human probiotic supplement. If you do, assume the directions are for a 150 pound human and adjust the dose to your dog's weight.

Most probiotics are dairy based but soil based probiotics can be a better choice as dairy-based probiotics can aggravate allergies in many dogs.

### **Probiotic Whole Foods**

It's always best to give whole foods instead of a pill if you can ... so an even better way to give your dog probiotics is to feed her probiotic whole foods. Some examples are kefir, fermented fish stock or fermented vegetables. These foods will add natural probiotics as well as other valuable nutrients and enzymes to your dog's meals.

There are now several brands of fermented goat milk products for dogs. Fermented milk contains 200 different probiotic strains that may do a better

job at surviving stomach acids because of the proteins that accompany them.

Three ounces of milk or kefir is about 60 calories, so don't forget to cut back elsewhere in your dog's diet to compensate!

Fermented vegetables have the same benefits and you can feed about a teaspoon per 15 pounds of body weight. You can buy fermented vegetables or make your own from many recipes found online. Start with small amounts and work your way up.

## **Prebiotics**

Adding a prebiotic will make your probiotics more effective. Prebiotics are non-digestible food ingredients that feed the probiotics in the gut. You can buy prebiotic supplements like inulin and fructo-oligosaccharides. As with all human supplements, assume the dose is for a 150 lb person and adjust for your dog's weight.

You can also use whole food sources of prebiotics. A couple of good ones for dogs are:

- Raw dandelion greens: sprinkle on food 1 teaspoon of dried greens per 20 lbs of body weight per day.
- Garlic: feed 1 teaspoon of chopped raw garlic per 30 lbs of your dog's weight per day.

# **Antifungal Foods**

# **Garlic**

As well as being a good natural prebiotic, garlic also has antifungal properties so that's another reason to feed it to your dog. For maximum health benefits, chop fresh garlic and let it sit for 10 to 15 minutes before adding it to your dog's food. Exposing garlic to air releases allicin, the substance that provides garlic's many health benefits. Here's some more information about safely giving garlic to your dog.

## **Coconut Oil**

Coconut oil has antifungal properties and is another good food to add to your yeasty dog's diet.

It contains medium chain triglycerides (MCTs), which are made up of lauric acid, capric acid, caprylic acid, myristic acid and palmitic acid. All of these contribute to coconut oil's antifungal as well as antibacterial and antiviral properties.

Always buy Virgin or Extra Virgin Coconut Oil (they're the same thing), preferably organic (and non-GMO), cold pressed, and packaged in a glass jar. Start slowly to avoid loose stool and work up to 1 teaspoon per day per 10 lbs of body weight.

You can also use coconut oil topically, as you'll see below.

# Oil Of Oregano

Oil of oregano also has strong antifungal properties and is another good addition to your dog's diet. It's very powerful so a drop or two a day is plenty for most dogs. Don't give it full strength but dilute it in either coconut oil or olive oil, using one drop of oil or oregano per teaspoon of olive or coconut oil. So if you're already giving your dog coconut oil for her yeast, give it an extra boost with a drop of oil of oregano.

# **Immune Support**

Here are two more supplements you can add to your dog's diet to help boost her immune system:

Astragalus supports the liver and helps it do its job: ridding the body of toxins. <u>Herbalist Greg Tilford</u> recommends up to 10 drops of extract per 10 pounds of body weight, up to twice daily.

Milk Thistle Seed will prevent and repair damage to the liver and kidneys. Give your dog ¼ teaspoon per 20 pounds of body weight per day. Milk thistle shouldn't be used as a daily supplement, but only for a few weeks at

a time when the liver may be stressed. Think about using milk thistle if your dog is vaccinated, on heartworm meds or dewormers, flea or tick meds or sprays, drugs, has recently had surgery or when your dog is under stress (kenneling or a change in home).

# Fighting Yeast On The Surface

Apple cider vinegar is a great solution for yeast, especially for dogs who love the water (because yeast loves water and moist, damp skin).

Fill a squeeze bottle (the kind with a long pointy end like ketchup bottles at a diner) with Bragg Organic Apple Cider Vinegar. Stick it in your dog's fur and squeeze. Massage it around your dog's body, and don't forget the belly area too.

This will help restore your dog's healthy pH levels and discourage yeast.

Then, once a week, or more if needed, massage yeasty areas with this coconut oil mixture:

Let extra virgin coconut oil melt in a small glass bottle holding about 8 oz. Add 10 drops of lavender oil and 2 drops of lemon essential oil. Shake to mix and massage it into your dog's skin.

This coconut oil mix will last several months. Store it in a dark place. *This recipe is from Rita Hogan of Farm Dog Naturals* (<u>FarmDogNaturals.com</u>).

## After-Bath Rinse

<u>Dr Dee Blanco</u> recommends using apple cider vinegar as an <u>after-bath</u> <u>rinse</u> for your dog. Before bathing, prepare a mixture of ¼ cup of apple cider vinegar to 1 gallon of filtered water (increase the quantities for a large

or giant breed dog). Set the mixture aside while you bathe your dog. Use a coconut-based or unscented, organic shampoo. After bathing and rinsing your dog, gently pour the ACV mixture over her body and legs. Be careful to avoid her nose, ears and eyes.