

Ringworm

Many shelters across the country euthanize animals at the first sign of ringworm, but Austin Animal Center is committed to treating this condition through our foster program. In foster care these animals are treated with a three pronged approach – lime dips, oral antifungal medications and treatment of the environment. Animals with signs of ringworm should leave the shelter ASAP as this is a contagious condition. Without foster homes to step up to take on the treatment of this condition, the infected animals may face euthanasia.

What is Ringworm ?

Contrary to its name, Ringworm is not a worm at all but a fungus. There are 3 types of ringworm, one type is the same fungus typically referred to as “athlete’s foot”. When this fungus grows anywhere other than the bottom of a person’s foot, it is called ringworm. The fungi live on the surface of the skin and in the hair follicles feeding on dead skin and hair.



What does Ringworm look like?

The usual symptom is a round hairless lesion. However, the characteristic "ring" that we see on humans doesn't always appear as a ring on animals. This lesion will grow in size and often become irregular in shape.

The fungi cause the hair shafts to break off resulting in patches of hair loss. Ringworm is commonly found on the face, ears, tail and paws. The lesions are scaly and the skin may be reddened. The spots may or may not be itchy.

How is ringworm transmitted?

Transmission can happen by direct contact with another infected animal or person. It can be passed from cats to dogs and visa versa and from pets to humans and from humans to pets. The fungal spores can live in the environment for a long time and can be found in soil, carpets, bedding, grooming equipment, etc... The spores can infect an animal or person when they come into contact with them. The incubation period is 10-12 days. This means that following exposure to the fungus, about 10-12 days will pass before any lesions occur.

Can Humans catch Ringworm from Animals?

Yes, humans can contract ringworm by handling an animal with the condition, or sharing a living area with them.

Are all cats, dogs and people susceptible to ringworm?

Healthy adult animals and people usually have a resistance to ringworm. Young animals and people are more susceptible because their immune system hasn't fully developed. Many animals are carriers of ringworm but show no symptoms. They can, however, infect other animals or humans.



Diagnosis of Ringworm

To diagnose Ringworm the vet will need to do one of the following tests. It is not possible by just looking at the skin to make the diagnosis. Typically, if ringworm is suspected, treatment is begun immediately as diagnosis is difficult and time consuming.

Wood's Lamp

An ultraviolet lamp, also known as a black light. The vet may use this as 50% of *microsporum canis* will glow under the lamp.

Microscopic diagnosis

The vet may look at part of the hair or skin from the lesion under a microscope.

Culture

The vet may decide to take a scraping from the lesion and grow it in a medium to see what the culture grows.

Is there a cure for Ringworm?

If no treatment is carried out, ringworm will run its course in two to four months and the symptoms will resolve themselves. However, treatment is recommended to save the pet from suffering any longer than necessary and to cut down the period of time they are contagious.

Ringworm Treatment

Oral Antifungal Medication

The vet may prescribe an antifungal drug that inhibits fungal reproduction. It is given once a day for 14-28 days and the dosing must be adjusted as the pet grows as the dose is calculated based on the animal's weight.

Shampoos and Dips:

Lime sulfur dips are also usually prescribed by the vet.

Dips should be given twice a week and can be given at home. Please be aware that Lime Sulfur will stain clothing and jewelry and will cause temporary yellowing of the cat or dog's hair. It also smells very strongly of rotten eggs.

Decontaminate the environment

Use bleach mixed at 1:10 on any surface that you can at least every other day. This solution should kill 80% of the spores. Vacuum on a daily basis and dispose of vacuum bags / empty the vacuum canister, which will contain the spores. Steam cleaning of carpets and furnishings will also kill a large number of the spores – this is best done after the pets have left the home.

Don't forget the animal's bedding! Wash all bedding in very hot water with detergent that contains color safe bleach.

Confine fosters to one room of the house or in a crate to avoid spreading spores all over the house.

This “trifecta” of treatment has proven very successful in treating ringworm when diligently carried out as it considered a “chain” of treatment – if one link is weakened, the chain will break and the ringworm will not be cured.

Complete Ringworm Treatment Protocol

Pet(s) should be checked daily for additional lesions.

Lime Dips	Oral Medication	Environment
<p>Mix 8 ounces of concentrated lime dip with 1 gallon of water. Or, if you are treating a small animal and you do not need to use a full gallon, you can mix up a smaller amount, but use the same guidelines for dilution. For instance, 2 ounces of dip mixed with ¼ gallon of water, or 4 ounces of dip mixed with ½ gallon of water.</p> <p>Do not pre-wet the animal</p> <p>Apply the dip to the animal's body with a sponge, spray bottle, etc... be sure that the dip saturates the animal's hair and reaches its skin.</p> <p>Place the animal in a warm place and let it air dry.</p> <p>Do not be alarmed if the animal licks itself while it is drying.</p> <p>*Animal should be dipped twice a week*</p>	<p>Oral Medication should be given as directed. Young animals should be weighed every two weeks and their dosage re-calculated.</p>	<p>All ringworm animals should be kept strictly quarantined in a room that is easily cleaned, preferably without carpeting or upholstery.</p> <p>After handling and interacting with ringworm animals, hands should be thoroughly washed and clothing should be discarded or immediately washed in color safe bleach with the hottest water possible. Disposable smocks may also be used.</p> <p>All non-porous surfaces should be cleaned with bleach diluted 1 part bleach to 10 parts water. This includes floors, walls, counter tops, windowsills, carriers, etc.</p> <p>Rugs, carpeting, drapes and upholstery should be vacuumed at least once a day. Vacuum bags or canisters should be regularly discarded or emptied and cleaned with bleach/water.</p> <p>Bedding should be changed daily, and soiled bedding discarded or washed in a washing machine on the hottest water setting with color safe bleach detergent.</p> <p>Scratching posts should not be used since they can harbor ringworm spores and are not easily cleaned. Toys should be soaked at least 15 minutes a day in a bleach/water.</p> <p>Changing heating and air conditioning vents regularly during the entire treatment protocol is recommended.</p>

After 1 month of dipping, the shelter will culture or re-culture all affected animals. You should continue all treatments and cleaning protocols while waiting for the culture results.

Continue reading for additional details regarding lime dip treatment and housecleaning protocol.

How to Lime Dip to Treat Ringworm

- ❖ Lime sulfur dip should be used at 8 ounces to the gallon.
- ❖ When mixing the dip it is important to put 8 ounces of the lime sulfur in the mixing container FIRST and then add the warm water. This will give you the correct dilution.
- ❖ The lime sulfur treatment is very important to reduce ongoing environmental contamination.
- ❖ It is recommended to wear heavy duty dishwashing gloves during the dip. Remove jewelry and wear old cloths.
- ❖ Let the solution 'coat' the hairs. You must soak the animal to the skin. Use rags or a sponge to gently apply dip around the face and inside the ears, on their little noses, etc. These areas are most important and tend to be the most difficult to resolve.
- ❖ Dipping animals directly into a bucket containing the solution is most effective.
- ❖ Do NOT use the sink or tub for dips – use an old tub or bucket as the lime dip WILL STAIN anything it comes in contact with.
- ❖ Do not rinse off the solution
- ❖ Do not towel dry the animal, let it “drip dry” in a crate that is in a warm area, free of drafts. Continue to protect them from becoming cold until they are completely dry.
- ❖ When using the “bucket” method, you can use the same solution for multiple dips (on the same day). Start with the least symptomatic animal (few or no lesions) and work up to the one with the most lesions last.
- ❖ When disposing of the lime dip after the baths, it is safe to rinse down the drain, just be sure to rinse it with lots of water to prevent staining.
- ❖ Good Lime Dipping Videos

<http://www.youtube.com/watch?v=35zau-JS5TE&feature=fvsr>

<http://www.youtube.com/watch?v=Xjxm01mlCw&feature=related>

http://www.youtube.com/watch?v=-wr-lGdh_E0

CLEANING UP RINGWORM

While ringworm animals are in your home, it is VERY important that you thoroughly clean the environment each day to prevent re-infection of the animals or infection of healthy animals and people in the home.

- All non-porous surfaces should be cleaned with bleach diluted 1 part bleach to 10 parts water. This includes floors, walls, counter tops, windowsills, carriers, etc...
- Rugs, carpeting, drapes and upholstery should be vacuumed at least once a day and vacuum bags should be regularly discarded / vacuum canisters should be cleaned with bleach diluted 1 part bleach to 10 parts water.
- Bedding should be washed in a washing machine on the hottest water setting with color safe bleach detergent.
- Scratching posts should not be used since they can harbor ringworm spores and are not easily cleaned.
- Toys should be soaked at least 15 minutes in bleach solution diluted 1 part bleach to 10 parts water every other day. Toys not easily soaked in bleach should not be discarded.
- After use, carriers should be cleaned with bleach diluted 1 part bleach to 10 parts water.
- Changing heating and air conditioning vents is recommended.