

## STAPHYLOCOCCAL DERMATITIS AND HYPERSENSITIVITY

### **What is this problem?**

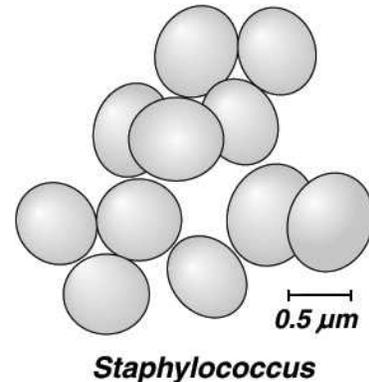
*Staphylococcus* is a name of a group of bacteria commonly found on the skin. Dermatitis is a term that means inflammation of the skin. This condition is also referred to as *Staphylococcal* pyoderma or *Staph.* pyoderma. Pyoderma is a medical term for bacterial skin infection.

### **Does this bacteria always cause dermatitis?**

No. *Staphylococci* normally reside on the skin of animals and humans without causing any problem. They are considered opportunistic pathogens. As long as the skin is healthy, these bacteria are dormant. But once the skin is irritated, they can invade the area and rapidly multiply, seizing an opportunity to infect.

### **What causes this type of skin irritation?**

Scratching, licking or chewing are the most common causes resulting in skin irritation. Any disorder that causes itching can create the situation that allows *Staphylococcus* to become a problem. Common causes of itching include fleas, inhalant allergy, and food allergy. Irritating chemicals such as flea and tick dips can also cause itching.



### **How is the condition diagnosed?**

There are two typical *Staphylococcal* lesions. One type begins as a red area on the skin with a pimple-like pustule in the center. The other type is a circular, reddish area with a crusty edge and hair loss in the center. The latter can easily be confused with ringworm or yeast skin infection. Finding either of these skin patterns in a dog that is scratching is highly suggestive of *Staphylococcal* dermatitis.

Confirmation can be made with bacteriological cultures or skin biopsy.

### **How is the condition treated?**

It is caused by bacteria and is usually sensitive to several antibiotics. A swab will be taken to confirm the identity of the organism and an antibiotic sensitivity test will determine the most suitable antibiotic, which usually can be administered by mouth. Some infections may require three to six weeks of treatment before the infection is under control. Antibacterial shampoos and ointments can be helpful in bringing about rapid control of the infection.

The other essential part of treatment is stopping the cycle of itching and scratching which may have contributed to the *Staphylococcal* infection. Other tests may be needed to determine the cause of itching. Frequently, more than one condition contributes to the itching.

### **Is my dog contagious to me or other pets?**

No. All dogs, cats, and people have *Staphylococci* living on the skin as a normal resident. The infection occurs only if the skin is damaged or there is an underlying medical condition.

***I finished treatment for Staphylococcal dermatitis two weeks ago, and now the infection is back. Why is that?***

This situation may be caused by an allergy to the *Staphylococcal* bacteria. This is called *Staphylococcus* hypersensitivity or *Staphylococcus* allergy.

The skin lesions that are caused by hypersensitivity are identical to those of *Staphylococcal* dermatitis. The two diseases are differentiated by recurrence. If the dermatitis is treated properly, the underlying bacterial skin infection with *Staphylococcus* is eliminated and itching stops. The infection may recur if the itching is not controlled. However, when the dog with



***Staphylococcal dermatitis***

*Staphylococcal* hypersensitivity is treated, the skin lesions will return continue to return within a few days or weeks.

Since differentiation of *Staphylococcal* dermatitis and *Staphylococcal hypersensitivity* is based largely on recurrence, it is very important that treatment for dermatitis be continued long enough. This often means a month or more of antibiotics. If not, there will still be a question of which disease is present.

***How is Staphylococcal hypersensitivity treated?***

Treatment begins the same as for *Staphylococcal* dermatitis: oral antibiotics, medicated shampoos, and treatment to stop the itching. In hypersensitivity cases, long-term control is best achieved with periodic routine injections of *Staphylococcal* bacterin. *Staphylococcal bacterin* is a solution of killed *Staphylococcal* bacteria that is injected into the dog in very tiny amounts. This is an attempt to “reprogram” or “re-train” the dog's immune system so it does not over-react to this naturally occurring bacteria. The use of *Staphylococcal* bacterin begins as a series of daily injections into the layers of the skin. After the initial series is completed, the injections are given subcutaneously (just below the skin) on an interval of every three to four days to every two weeks. These injections frequently will give profound improvement when other treatments have failed.

If such a course is prescribed, your veterinarian will often teach you to administer these simple injections at home.

***How successful is this?***

Desensitization therapy or “allergy shots” are rarely successful 100% of the time, in dogs or in people. Research has demonstrated that up to 77% of the dogs to respond well.

***What happens if Staphylococcal bacterin desensitization is not successful?***

The dog will require periodic treatment with antibiotics and medicated baths. This is not the most desirable approach because *Staphylococcus* will often develop resistance to the antibiotics. If this occurs, a change in the specific antibiotic used will be necessary. This will also involve more bacteriological tests and antibiotic sensitivity testing in order to establish another appropriate course of treatment.

## INSTRUCTIONS

Give the antibiotics according to the instructions on the label. Do not discontinue them even though your dog's skin looks normal. There should be noticeable improvement within one week. If not, please contact us. If the skin lesions are improved but not completely healed when the antibiotics are all given, we will need to reexamine your dog.

Bathe your dog in the medicated shampoo supplied every \_\_\_\_\_ days for a total of \_\_\_\_\_ baths. Allow it to remain on your dog's skin for at least five (5) minutes before rinsing thoroughly.

An injection was given to stop itching. If this does not occur within twenty-four (24) hours, please contact us. If the injection causes your dog to drink and urinate excessively, please contact us. If this occurs, it will usually stop in a few days. These side effects are dose related. If another injection is needed in the future, we will lower the dose to avoid this problem.

Tablets have been prescribed to control itching. Give the first dose \_\_\_\_\_. If these tablets cause your dog to drink or urinate excessively, please contact us. If this occurs, it will stop in a few days. We may adjust the dosage based on your pet's response.

1. *Staphylococcal* bacterin is to be given according to the following schedule:

Dose 1: \_\_\_\_\_

Dose 5: \_\_\_\_\_

Dose 2: \_\_\_\_\_

Dose 6: \_\_\_\_\_

Dose 3: \_\_\_\_\_

Dose 7: \_\_\_\_\_

Dose 4: \_\_\_\_\_

Dose 8: \_\_\_\_\_

Please make an appointment on each of these days.

Following this series you will be shown how to give the injections at home if you prefer.

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*This client information sheet is based on material written by Ernest Ward, DVM.  
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