

BUMBLEFOOT IN CHICKENS AND WATERFOWL

What is Bumblefoot?

Bumblefoot, known to the medical community as pododermatitis, is an inflammatory condition affecting a bird's foot. This disorder can be seen in any avian species but is quite common in chickens and waterfowl. Lesions vary in severity, ranging from mild redness and thinning of the scales on the bottom of the feet to ulcerations of the skin that extend to the sides and upper surfaces of the digits. In severe cases, the underlying muscle, tendons, and bone may also be affected. Veterinarians often use grading schemes that help assess the severity of the problem, prognosis and course of action to take. The higher the grade of pododermatitis, the worse the disease, the poorer the prognosis and the more intense the treatment will become.



Bumblefoot example - Duck



Bumblefoot example - Chicken



Bumblefoot example - Chicken

Causes

Bumblefoot often is a multifactorial disease, meaning that multiple underlying causes can be present. Sometimes the reason for the disease is obvious in one individual, while it may not be as clear in another. Problems such as unequal weight bearing between feet, trauma, or decreased blood supply to the foot can result in bumblefoot. When it comes to chickens and waterfowl, the following species characteristics and features of the living environment may predispose these birds to developing bumblefoot:

Size of the Bird

Chickens and waterfowl have a large and robust body mass, which contributes to more weight and pressure on the bottoms of the feet. Additionally, when these birds are allowed to become obese, there are even greater forces and excessive weight bearing on the feet. The large body mass, combined with a lack of appropriate exercise and mobility greatly increase the risk of developing bumblefoot.

Perches

Although chickens – unlike many other species of birds – may not perch in trees or on branches all day, they do like to roost on perches while resting. If the perches are incorrect or uniform in diameter or shape, this can lead to continuous pressure being placed on the same part of the foot during perching, leading to sores or thinning of the skin at these contact points. Additionally, trauma or injuries to the foot may occur due to splinters or otherwise damaged perches, perching on inappropriate items (e.g. wires), jumping off of perches placed too high up, or landing on firm surfaces. Therefore, make sure that perches are made of appropriate materials, free of splinters or other damage, and are placed at an appropriate height (approximately 2.5 feet) above a soft substrate.

Substrate

Waterfowl should spend a portion of their time in water allowing pressure to be taken off the bottoms of their feet. If they have limited access to water, they may be bearing too much weight on their feet and develop sores. Birds that spend too much time on concrete outside of the water are more prone to developing bumblefoot. This is particularly a problem for diving species over the dabbling species of waterfowl. For birds that do have access to water, the bottom of the pool can be a contributing factor. If the pool is too shallow or the substrate is abrasive to the feet, it could result in damage to the skin.

Cleanliness

Another factor to keep in mind is the cleanliness of the area on which the birds are standing. Chickens and waterfowl that are standing on soiled surfaces have their feet in direct contact with potential pathogens or chemicals like ammonia that can be damaging to the skin. If there is a break in the skin for any reason and birds are standing on contaminated substrates, bacterial organisms could enter more easily which can lead to infections.



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Treatment

Treatment will vary depending on the severity of the lesions. Talk with your veterinarian about what treatment will be right for your bird. Possible treatments a veterinarian may choose from could include the following:

- Environmental changes: Changing substrates, providing padding to the feet
- Encouraging exercise to enhance blood flow to the feet
- Weight Loss
- Antibiotics
- Anti-inflammatories
- Bandages: Specialized wraps to relieve pressure on certain parts of the foot
- Commercially available booties
- Surgeries: Debridement surgeries, amputation of digits
- Foot soaks
- Medications that dilate blood vessels in the feet
- Others



Tips on Proper Perching for Chickens

Perches for chickens should be variable in their size and thickness so that birds do not have to put pressure on the same part of their foot all the time. These perches should also be routinely inspected for splinters or damage and have any issues addressed immediately. Wrapping perches with protective covering, such as a self-adhesive bandage, can also provide a softer surface for the bird's foot to contact. Square shaped perches as opposed to rounded perches have been found to be more beneficial for chickens' foot health. Make sure that perches are placed at an appropriate height (approximately 2.5 feet) above a soft substrate.



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Prevention

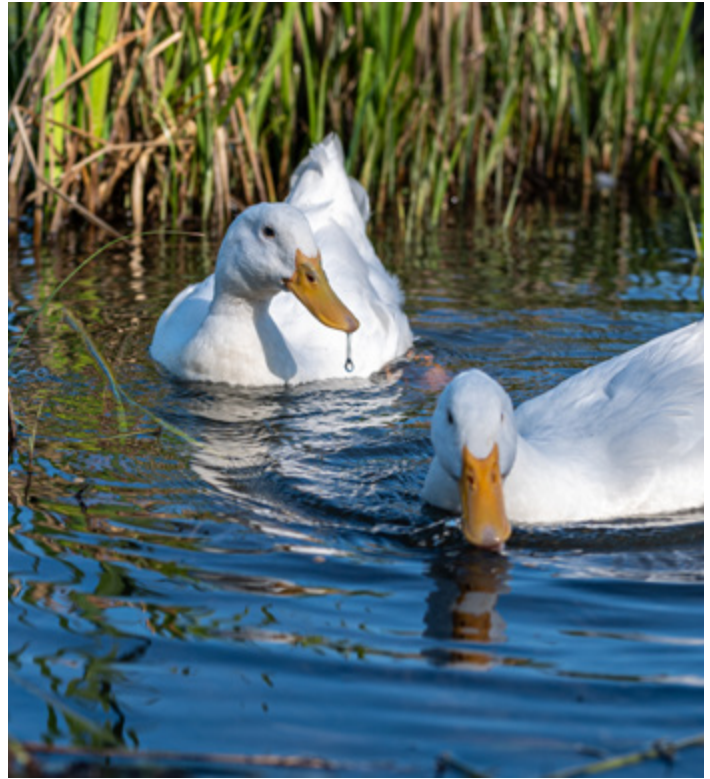
It is always better to prevent a problem than to have to treat it. Once a lesion is present, treatment can be time consuming and may take weeks to months to allow the bumblefoot to resolve. Moreover, some patients will have chronic problems resulting from this condition.

For waterfowl, making sure they have appropriate areas to swim is a must. If waterfowl are swimming in pools, the substrate should not be damaging to the feet. Additionally, while on land, waterfowl should have areas of soft substrate to stand on, such as grass.

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One special circumstance to consider is injury to a healthy foot due to problems associated with the other leg. For example, if a bird has an injury or surgery to his left leg, it may bear more weight during the recovery period on his right leg, predisposing to the development of bumblefoot. The healthy foot should be closely monitored and consideration might be given to padding perches or wrapping the foot to prevent bumblefoot developing.

Bumblefoot can develop into a serious, even life threatening, disease so be sure to check your birds' feet regularly. Also, follow appropriate preventative measures by monitoring the birds' weight, ensuring appropriate exercise, providing adequate housing and asking your veterinarian for recommendations on appropriate care. If bumblefoot is noticed, it is best to address the problem when it is in the early stages rather than risk only noticing it when it is severe! Remember to consult your avian veterinarian when problems are discovered in your flock; they have the experience needed to guide you through an appropriate treatment plan.



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Avian medicine is a distinct and very specialized field that requires extensive training, advanced skills, and facilities specifically designed and equipped to treat and hospitalize birds. The Association of Avian Veterinarians was established to provide veterinarians with this special education, and to keep them up to date with the latest information on bird health. The AAV holds an annual conference on avian medicine and publishes the peer-reviewed *Journal of Avian Medicine and Surgery*. AAV also makes annual contributions toward avian conservation and sponsors studies advancing the understanding of avian medicine.

For More Information

For more information on birds, ask your veterinarian for copies of the following AAV Client Education Brochures:

- Avian Chlamydiosis and Psittacosis*
- Additional Bumblefoot Brochures (Parrots, Raptors)
- Veterinary Care for Your Pet Bird*
- Basic Care for Companion Birds*
- Behavior: Normal and Abnormal
- Caring for Backyard Chickens
- Caring for Ducks
- Digital Scales
- Feather Loss
- Feeding Birds
- Foraging for Parrots*
- Injury Prevention and Emergency Care
- Managing Chronic Egg-laying in Your Pet Bird
- Signs of Illness in Companion Birds*
- Ultraviolet Lighting for Companion Birds
- When Should I Take My Bird to a Veterinarian?*
- Zoonotic Diseases in Backyard Poultry*

*Available in multiple languages. All others are available in English only at this time.

Online Resources

Follow AAV on Facebook (www.facebook.com/aavonline) for great tips and the latest news for pet bird owners. You can also find us on Twitter (@aavonline) and YouTube!

Our website, www.aav.org, offers a Find-a-Vet tool to help pet bird owners locate avian veterinarians around the world. We also offer a variety of resources such as basic bird care instructions and more. Visit the website today!



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