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Leg and Foot Disorders in Domestic Fowl

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Most leg and foot disorders in fowl can be prevented through proper nutrition and management. However, some problems can be genetic. In today's large meat chickens and turkeys the problems become very complex since the birds put on weight faster than they build their bone structure to support the weight. Since large meat birds and waterfowl are prone to leg and foot problems, let's consider the causes of these problems in fowl.

Nutritional Deficiency in Breeders: The first sign of leg and foot problems are noticeable at hatching time. The adult breeding stock needs to be fed a well-balanced diet since the chick develops on the nutrients placed in the egg by the hen. If the breeder's diet is deficient in vitamins and minerals the chick's structure is off to a poor start.

Nutritional deficiencies of Vitamin D3, causes soft bones and an increase in lameness in chicks. Riboflavin deficiency will cause a high incidence of curly-toe paralysis, straddle legs and chicks going down on their hocks.

Old Hatching Eggs - Eggs held too long (10 days or more) before being set in the incubator can cause an increase in the number of crippled and weak chicks.

Low Humidity - Eggs incubated with insufficient moisture tend to develop poorly, stick to the membranes and have a hard time hatching. "Dry sticks" or chicks hatching in these conditions are more prone to crippling and other leg problems.

Slippery Brooding Surfaces - Newspaper, wood, and other slippery surfaces cause excessive leg problems for all young fowl, especially waterfowl, game birds and feathered-legged fowl. Provide a soft absorbent litter that gives the birds good footing and traction. Textured paper towels, old cloth towels, or burlap work well for the first two weeks. After two weeks of age a 3-inch base of pine shaving, chopped straw or peanut hulls are recommended. Don't use materials like corn cobs or sawdust which become packed down and mold if it gets wet.

The biggest problem with slippery surfaces is straddled legs like in the picture at right. Once the fowl gets to this point, the problem is nearly impossible to correct.

Lack of feed and water space - Crowding at feeders and waterers tends to put undue stress on the bird's legs. This can result in hock disorders.

2009 Virginia Polytechnic Institute and State University 2902-1098

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Wet litter - Birds walking on damp litter tend to develop tender foot pads. They are prone to sit on the wet litter leading to breast blisters and swollen hocks. If the pads on their feet get badly cracked, they often get infections leading to bumble foot. Bumble foot is a pussy core in the pad of the foot which swells and causes the bird to go lame. If you can remove the core and clear up the infection you can sometimes correct his problem. Bumble foot can also be a problem for birds raised on gravel, concrete floors, or hard- packed ground. Waterfowl are especially prone to bumble foot if they are raised on packed ground or in an area with a lot of weed stubble (weeds cut off with lawn mower).

Improper diet - Starter diets that are adequate for laying chickens do not do the job in meat chickens, turkeys, and waterfowl. Use a complete starter and grower mash balanced for the specific types of fowl whenever possible. People often feed whole grains to young fowl trying to save money. This often results in nutritional deficiencies that causes lameness.

Improper equipment - Make sure any mesh wire brooders are small enough to prevent the young fowl from getting their hocks stuck in the wire.

Be sure doorways are large enough for the birds to move through easily. Make sure ramps have good traction for the bird. Use ramps and walkways so the birds do not crowd over a high sill or jump onto hard ground from elevated doorways.

Proper use of perches - Do not use perches for large meat-type birds. For other fowl use perches about 24" off the ground. Not using perches with game and other perching fowl often causes damage to the bird because they fly at the ceiling looking for a place to roost.

Keep children, pets and other fast-moving or noisy objects away from young fowl. Forced exercise or sudden scares can result in pulled muscles, slipped joints & lameness. This is especially true with waterfowl.
Never catch fowl, especially waterfowl by the legs.

Never run waterfowl or chase them for long periods of time. Waterfowl have especially tender legs and joints and can go lame very easily.

Scaly leg mites in chickens can cause lameness. Scaly leg mites bore under the scales on the legs of the chicken. The scales enlarge, get rough and become infected. If not treated early the bird may go lame. To treat, soak the bird's legs in an oil or cream to suffocate the mites. Treat every 3 to 4 days for 2 weeks. The old scales will then fall off over time and be replaced with new scales.

Treatment of Lame Birds

If lameness occurs, remove the bird from the rest of the flock and raise in a small pen with easy access to fresh water and feed to limit the birds movement. Allow the lame birds to get rest for a week or so and most times they will recover. Do not put back with the rest of the flock until the lame bird can move easily and freely.

If the bird has badly straddled legs like the illustration above, you can tape the legs together with a harness so that the legs must stay in the normal position. If the bird does not show improvement after a week, it will most likely be best to have the bird humanely killed so it does not suffer.

Remember, any leg and foot disorders in young fowl may be genetic. This means if you save and breed from fowl with leg and foot disorders, your problems could continue to get worse over the years. So cull birds showing these disorders.

By taking proper management precautions, you can prevent leg and foot disorders from ever occurring.

Reviewed by Audrey McElroy, associate professor, Animal and Poultry Sciences