

CAUSES AND CORRECTION OF SPLAYED LEG DEFORMITY

By Josie Pyle

Splayed leg is a deformity that can occur in both hand raised and parent raised birds. In this condition one or both legs extend outward from the hip instead of downward under the chick. If left untreated the leg will become stiff and permanently unable to be drawn under the body. The sooner the problem is identified and treatment started, the less severe and prolonged treatment will need to be.

CAUSES

The specific growth deviations seen in splayed leg may be due to a number of causes. These range from dietary imbalances (vitamin D3 & calcium deficiency), rapid growth rate and/or unsuitable bedding materials (in nests or brooding containers), incubation problems (malpositioning in the egg), genetic defects and congenital defects. (Diseases of Cage and Aviary Birds. Part I: Caged Birds. Psittacine Pediatrics. 342-344).

Dietary Deficiencies : Bone growth is more rapid in birds than in mammals and it is therefore extremely important that a balanced diet be provided to breeding birds and adequate nutrition be provided to the chick from the time of hatching. As little as ten days on a deficient diet can cause irreparable damage to the bones of a growing chick. For hand-raised birds, it is important to feed correct amounts of calcium, phosphorus and vitamin D3 by using a proven commercial formula at the correct dilution and in sufficient quantity. Both under feeding and feeding too watery a formula can result in inadequate caloric intake and eventually nutritional problems. In addition, improper nutrition may result from mal-absorption of food either through disease or **genetic problems**.

Trauma : In hand raised birds splayed leg can result from trauma, but is often due to inadequate or inappropriate bedding material. Slippery surfaces, such as tissues, that lack traction should be avoided. In addition, young chicks need support in the form of an appropriate sized container with straight sides padded with absorbent bedding. This arrangement provides support for the chick and allows leg growth to be directed in a healthy vertical fashion.

In the nest, lack of nesting material or inappropriate material may be a cause of splayed legs.

Congenital Defects : A congenital cause should be suspected if a pair consistently produces young with deformities. Problems with the adult birds, either genetic or dietary, may affect the health and development of the embryo and can contribute to the development of splayed leg.

Incubation Problems : Accidental occurrences such as inadequately formed eggs, delay in fertilization, delayed egg laying or cooling of eggs may lead to imperfect embryo development and deformities. Skeletal abnormalities may also result if the humidity is too low and membranes become dry decreasing mobilization of calcium from the shell.

CORRECTION

If detected early, splayed legs may be corrected by supplementing the chick with calcium and vitamins along with orthopaedic restraint. In contrast, advanced cases of leg deformities are not usually curable and may require extensive supportive therapy, surgical treatment, amputation or even euthanasia.

Leg Hobbles : The legs can be hobbled together with a variety of materials including surgical or masking tape, elastic, cloth or yarn. The hobble is placed around the lower part of the leg, drawing the deformed leg into a normal position but leaving some space between the legs. A leg ring placed on each leg may provide a support to tie string or elastic onto.

Other techniques include :

Cutting a flat piece of foam rubber with slits cut to accommodate the legs. To correctly re-position legs and feet, two cross cut openings are cut into the foam brace at distance judged to hold the legs in the right position. The feet and legs are inserted through these openings. This method can provide alignment at the same time as support for the chick.

A novel approach employed by one aviculturist involved placing the chick inside the barrel of a syringe so that the feet were restrained up against the abdomen. The syringe was cut in half first to form a tube and a tissue was inserted at one end to collect the droppings and prevent the chick from sliding out the bottom. The tube was placed upright in a cup.

Whatever method is used to restrain the legs, the chick will need to be supported in an upright position in a deep padded container from which it cannot escape.

The restraint should be left on for at least a week, although more severe cases may take longer to correct.

References :

Splayed Leg by Wanda Barras.

http://www.cagenbird.com/splayed_leg.htm

Fixing Splay Legs in Baby Birds.

<http://www.parrotparrot.com/splay/>

A New Approach to Correcting Splayed Legs in Baby Birds. by Nancy Chambers, Urban Bird, NY. <http://www.theaviary.com/s1295-46.shtml>