## **Evergreen Avian & Exotic Animal Hospital**

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## Products for the Health of Birds

Adapted from Lafeber Company Info Sheet

There are a number of products to help insure the health of pet birds. Listed below are common medical problems encountered along with diet and supplements that may be used to help alleviate the condition.

Bacterial Infections (with or with out Hypovitaminosis A (low vitamin A levels)

Choanal or oral gram stains often show immature cells along with large numbers of gram positive and/or gram negative rods. Moderate gram positive organisms are normal. Gram negative rods are not. Yeasts may or may not be present. These types of infection are commonly found in vitamin A deficient birds i.e. birds on a seed diet or unbalanced diet.



These birds can benefit from **Nutri-An** cakes as well as conversion using **Nutriberries** to pellets as soon as possible. The **Nutri-An** cakes have a slightly elevated level of vitamin A and highly digestible protein from multiple sources to enhance the immune system. Most seed eaters easily convert, but daily weights are recommended to make sure they are eating enough to maintain body weight.

**Nutriberries** or **Avi-Cakes** provide balanced nutrition. The vitamin A/beta carotene levels are in the normal range in these products, however they are balanced for both omega 3 and 6

polyunsaturated fatty acids to enhance the immune system. There are great to use for conversion: crumble up, mix with current seed diet, use as forage, and gradually decrease the amount of old seed diet and increase pellets. When it is sure that the bird is eating pellets, gradually decrease the amount of **Nutriberries/Avi-Cakes**. Note: **Nutriberries** can also be used as a treat.

## Birds with Liver Disease

Birds with liver disease and on seed-based diets often have a number of deficiencies. These include the B vitamins, vitamin K, and vitamin E. During times of decreased fat intake, altered bile metabolism, increased urination, diarrhea or extreme exertion, there may be decreased or altered absorption from the diet vitamins A, D3, E and K. For this reason, a high-quality balanced food should make up the daily diet and supplementation with these vitamins may be necessary.

Dietary protein, fat, and carbohydrates are an important concern during liver disease. Protein requirements may be increased to help return plasma albumin concentrations to normal. Appropriate levels will also aid in the repair of liver tissue. Dietary fat should be limited. Caloric content may need to be increased, as well as supplementation with the essential fatty acids. Balanced omega 3:6 help to decrease inflammation and is important for provision of energy needs in both florivore and granivore bird species.

A combination of **Avi-Cakes** and **Nutriberries** works well in birds with liver disease. **Avi-Cakes** contain a combination of retinol as vitamin A and beta carotene, a vitamin A precursor. **Nutriberries** are balanced for the appropriate omega 3:6 ratio. We also use Harrison's pellets and a **Roudybush** liver diet, and some nutriceutical products including milk thistle, taurine, L-carnitine and coq10 along with B complex.

## **Birds with Kidney Disease**

The goal of the diet of birds with kidney disease is to provide adequate intake of nutrients but not excess as the kidney is compromised for excretion. Protein restriction is currently debated in small animal medicine, although it does appear that some reduction with readily digestible and high-quality proteins appears to improve renal performance. This work is being transplanted to the avian disease. Generally patients with kidney disease have muscle weakness and decreased energy. A diet therefore needs to meet both the protein and energy needs. The balanced omega 3:6 become important in encouraging blood flow to the kidneys by reducing inflammation and by directly having some vasodilation effect.

Hypovitaminosis A may result in kidney disease, or may compound the problem in birds with chronic kidney disease. It has also been associated with changes in the lining of the ureters and collecting ducts of the kidneys. These changes with decreased mucin and buildup of keratin leads may to form keratin plugs blocking the ureters so the kidney cannot get the urine/urates to excrete. This in turn leads to kidney dilation and failure.

Birds with kidney disease/failure may benefit from a diet of **Avi-Cakes** and **Nutriberries**. We also use a specifically formulated diet by **Roudybush** for kidney disease.