Vitamins for Budgies

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 Are you a little bewildered by the array of vitamin and mineral supplements available for birds and the conflicting stories as to what is needed to achieve top performance? If so you are not alone. I'm often asked which products are best and there is not a single simple answer to this question. It depends on husbandry practices, what else is being fed, the bird's general health and its life stage - whether it is growing, rnoulting, egg laying, raising young or just loafing.

It is important to recognize that seed diets are generally very unbalanced. Depending on the types of seed offered they usually contain excessive levels of fat but they are often deficient in a long list of nutrients including vitamins A, D3, E and KI as well as riboflavin, pantothenic acid, niacin, biotin, choline, iodine, iron, copper, manganese, sodium, calcium, zinc and some amino acids. Adult budgies can survive on an all seed diet but their performance will not be optimal. On the other hand, over supplementation with vitamins and minerals can also harmful. Clinical problems associated with malnutrition are often complex diseases that involve nutrition, environs- mental factors as well as infectious organisms. Understanding the role played by important vitamins can help to prevent disease.

Fat Soluble Vitamins - Vitamins A, D3, E and K.   
Over supplementation can be dangerous! These vitamins are essential for survival but because they are soluble in fat they can accumulate in the body and over supplementation can lead to problems, particularly with liver and kidney damage and infertility. You may recall publicity in the media about deaths occurring in captive bred Helmeted Honey eaters thought to be due to excessive supplementation with Vitamin D. Over supplementation of water soluble vitamins (for example with B vitamins) is less likely to be a problem because water soluble vitamins can easily be passed via the kidneys in urine.

Vitamin A   
This vitamin, which is formed in the liver from beta carotene, is needed for the formation of normal membranes and skin, for growth, for vision and for the production of important hormones. It is also needed for normal immune response, so birds that are deficient in Vitamin A may be less able to fight disease. Natural sources of beta carotene include dark leafy green and yellow vegetables, dark yellow fruit (such as rock melon and apricots) and egg yolk. Most vitamin supplement mixes will also contain vitamin A.   
*Deficiency can cause foot problems and internal disease*   
Many clinical problems may be associated with Vitamin A deficiency. These are often complicated because affected birds have been kept on all- seed diets which are also deficient in other nutrients.   
Pet budgies deficient in vitamin A often develop calluses or ulcers on their feet. Affected birds are usually middle aged or older and have been kept on an all seed diet for many years. Lack of vitamin A in the diet leads to poor skin formation, so initially there are indistinct 'footprints' on the bottom of the feet. Calluses and ulcers develop as the condition progresses. These may be aggravated by the use of sand-paper perches or only giving the bird perches of a single diameter so that the feet are constantly subjected to pressure at the same points. Infection of the ulcers may occur leading to 'bumble foot', which in turn may progress to joint infection and arthritis. Once bumble foot occurs the condition needs to be treated aggressively with cleaning the ulcers, antibiotics, bandaging and in some cases, surgery.

*To minimize the risk of bumble foot be sure your birds receive sufficient vitamin A, good nutrition generally and don't become overweight. Avoid sandpaper perch covers and provide perches of varying diameters.*

In mild cases of vitamin A deficiency in young birds the only, clinical sign seen may be increased drinking and passing excessive amounts of urine. This is caused by abnormal membrane formation along the urinary tract and it is readily reversible if vitamin A supplementation is given. In more severe cases small white pustules may be seen in the back of the mouth or lumps may occur in the mouth, especially under the tongue due to the blockage of salivary ducts. The lining of the respiratory tract may also become damaged, making the bird susceptible to respiratory tract infections, there may also be discharge or swelling around the eyes. Reproductive performance may also be affected and there can be reduced egg production, egg binding and poorly formed eggs. In males there may be abnormal sperm formation. In cases of severe vitamin A deficiency treatment with injectable vitamin A may be necessary initially to resolve the clinical problems, be followed by correcting the diet to ensure that the birds are receiving optimal levels long-term. (other vitamins will be covered in subsequent articles)