

# Immune Stimulating & Vitamin D Digestive Support Programme

Carlingford Animal Hospital

Dr Marshall has diagnosed your bird with a complex problem related to vitamin D deficiency which has led to poor immunity and impaired digestion. In order to restore full health, the following Immune Stimulating and Vitamin D Digestive Support Programme is recommended. This programme is recommended for birds with recurring infections and ongoing digestive disturbances. It is used to restore healthy vitamin D and calcium levels which in turn, promote stronger immune and digestive function and a return to good health.

## The Importance of Vitamin D and Sunshine

Direct sunshine initiates the production of Vitamin D in the body and is vital to health and happiness in pet birds. This vitamin D is then used by the body to regulate the absorption of calcium and promote strong natural immunity and healthy digestive function. A lack of vitamin D prevents the proper absorption of calcium into the body and leads to reduced muscle function within all organs. The muscular function of the gizzard and stomach become impaired and as a result, the movement of food the digestive tract becomes sluggish, causing stagnation and harmful gas forming bacterial infections. For this reason, prebiotics (Ve8 Powder) have been incorporated into this programme to prevent recurrent infection. Prebiotics are a natural alternative to antibiotics and are used regularly as part of this programme to restore good immune and digestive function.

## Hi-Cal D: Vitamin D Supplementation for Birds

Hi-Cal D has been developed as a potent source of vitamin D for those birds who do not have regular and sustained access to the benefits of direct sunlight. It is not always possible to provide daily sunbathing opportunities and for these birds, a dietary source of vitamin D is required as an alternative or supplement to direct sunshine. Direct sunshine remains the best means to naturally increase vitamin D levels. This is best achieved by placing your bird's cage outside in the midday sun for 10-20 minutes a day. Supervision during this time is vital to ensure protection from predator birds.

## Restoring Digestive Health

Digestive dysfunction associated with low levels of calcium as a result of vitamin D deficiency is a common problem of pet birds which occurs frequently in the parrot species whose natural diet includes moist, bulky or wet foods. Digestive disorders also occur in bird species whose natural food source is mainly dry seeds such as budgerigars, cockatiels, cockatoos and galahs.

## Immediate Treatment

Immediate treatment of birds with digestive dysfunction associated with vitamin D deficiency often involves hospitalisation for crop feeding over a number of days. This purging treatment begins the recovery process by flushing the digestive system of accumulated foreign materials or undigested food remnants that may be causing infection. The Immune Stimulating and Vitamin D Digestive Support Programme (over page) follows this purging treatment.

## Immune Stimulating & Vitamin D Digestive Support Programme

The Immune Stimulating and Vitamin D Digestive Support Programme begins with a 5 day loading treatment immediately followed by a weekly support plan that may continue for 2-4 weeks according to your bird's response. The 5 day loading treatment helps to rapidly restore vitamin D and calcium levels and begins your bird's journey to good immune function and digestive health. Ve8 Powder has also been incorporated into this programme as it contains prebiotics that function to re-establish healthy gut microflora and restore immunity. Additional treatments (e.g. Flagyl or Clavulox) may also be incorporated into this initial treatment plan. These are selected based on the results of culture testing.

### Immune Stimulating & Vitamin D Digestive Loading Treatment (5 Days)

	Optional Medication	In Drinking Water	On Sterile Seed	Dietary Recommendations
Day 1		Quik Gel <sup>1</sup>	Turbobooster, E-Powder, F-Vite & Ve8 Powder <sup>3</sup>	<input type="checkbox"/> Cooked rice
Day 2		Quik Gel <sup>1</sup>	Turbobooster, E-Powder, F-Vite & Ve8 Powder <sup>3</sup>	<input type="checkbox"/> Cooked beans
Day 3		Quik Gel & Hi-Cal D <sup>2</sup>	Turbobooster, E-Powder, F-Vite & Ve8 Powder <sup>3</sup>	<input type="checkbox"/> Cooked vegetables
Day 4		Quik Gel & Hi-Cal D <sup>2</sup>	Turbobooster, E-Powder, F-Vite & Ve8 Powder <sup>3</sup>	<input type="checkbox"/> Apple Puree
Day 5		*Medications are mixed with drinking water supplements	Quik Gel & Hi-Cal D <sup>2</sup>	Turbobooster, E-Powder, F-Vite & Ve8 Powder <sup>3</sup>

#### Mixing Instructions

<sup>1</sup> Mix 1 drop Quik Gel thoroughly into 100ml drinking water.

<sup>2</sup> Mix 1 drop Quik Gel and 2ml Hi-Cal D thoroughly into 100ml of drinking water.

<sup>3</sup> To 100gm of sterile seed add **6 drops** of Turbobooster and mix thoroughly. Then add 1gm (white spoon) each of E-Powder and F-Vite and 0.5gm (1/2 white spoon) Ve8 Powder and mix again so that these powders stick to the Turbobooster oil impregnated seed.

<sup>4</sup> Mix 1gm KD Powder (white spoon) into 1 litre of drinking water. Use this water to disinfect the cage and all feeding utensils.

The Ve8 Immune Stimulating and Vitamin D Digestive Support Programme immediately follows the loading treatment above. For some birds, Dr Marshall may recommend your bird receive this as an ongoing programme. To achieve the best and most rapid response to this programme, 10-15 minutes of direct sunlight is recommended each day or when not possible, weekend sunshine opportunities must be given. This weekly programme is used to prevent recurrent infections, restore vitamin D levels and in turn, re-establish good immune function and ongoing digestive health.

### Ve8 Immune Stimulating & Vitamin D Digestive Support Programme

Day	In Drinking Water	On Sterile Seed	Ongoing Dietary Recommendations
Day 1	KD Powder <sup>1</sup>	Turbobooster, E-Powder, F-Vite Ve8 Powder <sup>4</sup>	<input type="checkbox"/> Cooked rice
Day 2	Hi-Cal D, Ioford & Dufoplus <sup>2</sup>	Turbobooster, E-Powder, F-Vite Ve8 Powder <sup>4</sup>	<input type="checkbox"/> Cooked beans
Day 3	Quik Gel & Hi-Cal D <sup>3</sup>	Turbobooster, E-Powder & F-Vite <sup>4</sup>	<input type="checkbox"/> Cooked vegetables
Day 4	Fresh water	Turbobooster, E-Powder & F-Vite <sup>4</sup>	<input type="checkbox"/> Apple Puree
Day 5	KD Powder <sup>1</sup>	Turbobooster, E-Powder & F-Vite <sup>4</sup>	<input type="checkbox"/> Raw stemmed vegetables
Day 6*	Quik Gel & Hi-Cal <sup>3</sup>	Turbobooster, E-Powder, F-Vite Ve8 Powder <sup>4</sup>	<input type="checkbox"/> Fresh eucalypt new growth
Day 7*	Fresh water	Turbobooster, E-Powder, F-Vite Ve8 Powder <sup>4</sup>	<input type="checkbox"/> Freshly peeled rind (orange/mandarin)

#### Mixing Instructions

<sup>1</sup> Mix 1gm KD Powder (white spoon) into 1 litre of drinking water. Fill the water vessel and use the remainder to clean the cage.

<sup>2</sup> Mix 2ml Hi-Cal D, 10 drops Ioford and 5 drops Dufoplus thoroughly into 100ml of drinking water.

<sup>3</sup> Mix 1 drop Quik Gel and 2ml Hi-Cal D thoroughly into 100ml of drinking water.

<sup>4</sup> To 100gm of sterile seed add **6 drops** of Turbobooster and mix thoroughly. Then, add 1gm (white spoon) each of E-Powder and F-Vite and 0.5gm (1/2 white spoon) Ve8 Powder and mix again so that these powders stick to the Turbobooster oil impregnated seed.

\* Days 6-7 are optional Hi-Cal D days. For birds housed indoors with no access to direct sunlight, Hi Cal-D should be given on these days. For birds with limited access to direct sunlight (i.e. on weekends), fresh water should be given.

Ve8 Powder has been incorporated into this weekly support plan using a 2 day on, 3 day off cycle. It should be given immediately whenever the droppings appear watery or there are bubbles present. The droppings should then return to a well formed, healthy dropping with white urates present. If there is no improvement in the droppings by the next day, the daily feeding routine should be evaluated (refer to brochure *Dietary & Meal Time Recommendations for Healthy Digestion*). In some cases, and for those birds with a longstanding digestive disorders from which it takes some time to completely recover, a short antibiotic course may be required whilst healthy digestive function is restored.