

## **Lorikeets & Frugivores : Low Iron Diets??**

### Some of my thoughts & gatherings

Lorikeets, Lories & Frugivores, are very efficient to metalize most of the iron in their food, which, if not limited, could lead to a form of iron storage disease, **ISD**, (hemochromatosis). Iron builds up in the blood & cells of the liver and other organs, which, over time, may lead to profound liver and organ damage and may increase to life-threatening levels. Affected lories (along with other parrots) may show signs of difficulty breathing, a fluid-filled swollen belly, depression, paralysis, &/or may suddenly die. Medications are given to support liver function, block absorption of iron from the gut, and to bind any iron that was absorbed into the bloodstream before it reaches internal organs. Once fully contracted the outlook is poor even with aggressive care (phlebotomy/blood renewal).

It has been a problem in softbills (toucans, mynahs & starlings) for many years but has become more common/apparent in parrots particularly Macaws, Amazons & African Greys in the last decade or so.

A Low/Medium Iron diet is key, in reducing, preventing and managing this disease. Food should contain less than 10mg iron (10mg iron/100g food), and some veterinarians believe lory diets shouldn't exceed 5mg. A commercial diet with iron content under 10mg should be 75 to 90% of a lory's diet. Avoid feeding any iron-rich foods such as blackcurrants, baby foods, canned or processed fruits, and vertebrate animal protein. The rest of the diet should be low-iron produce such as listed in the tables below, with any fruit between .5 and 1mg iron used no more than twice a week. Stress may also be a contributor of ISD.

Vitamin C plays a role in promoting absorption of iron, but it is still necessary in the diet. Any item with more than 7.5mg vitamin C should be used no more than twice a week, and any fruits 25mg and over should only be occasional treats.

Feeding citrus with iron rich foods may actually enhance the absorption of iron in the bird. It may become evident that foods such as spinach, that have a high level of oxalic acid, the oxalic acid binds some of the iron (as it does with calcium).

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\_\_\_\_\_ Be sure to have your drinking water's iron content checked, even if you are getting bottled water or using a mineral filter. As a general rule, public drinking water has 0.03mg iron since high concentrations affect its taste and should not affect lorikeets adversely. However, groundwater (well water) is often over 10mg iron, and even some bottled waters are too high.

There is information that brewing tea and having a parrot drink it has been suggested as a preventative (not a cure if the bird already has the disease). Evidently the tannins in the tea block the iron from being absorbed. However, an excess of tannins in the system can cause other health problems. I would certainly advise talking to your avian veterinarian before giving your parrot tea as a regular part of its diet. Green tea is healthier for your parrot to drink but it contains less tannins. However, green tea contains polyphenols that stimulate the activity of hepatic detoxification enzymes, which may chelate iron and keep it from being stored in the liver.

Do birds intentionally get Tannins when they 'debark' fresh branches? As Tannic acids are evident in the Cambian layer, in varying amounts in different tree species

I do use teas, along with a 'Nectar concoction' of Herbal ingredients, (which may have a 'Tonic' effect.) This is made up in 1.5l batches, then frozen in 30ml lots, when needed, is thawed & served @ 30ml per pair.

Iron content (mg/100g) and vitamin C content (mg/100g) of recommended fruits and other produce for Lorikeets, Macaws, Amazons, African Greys & Frugivores ( Eclectus).

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