

# RESPIRATORY DISEASE IN SOUTH AMERICAN SPECIES ESPECIALLY MACAWS AND CONURES

## Pulmonary Hypersensitivity Syndrome

Although good ventilation is necessary for any type of bird, it is especially critical for South American species. Blue and Gold Macaws, as well as Sun Conures seem especially sensitive to airborne irritants. They may develop a progressive respiratory disease known as "pulmonary hypersensitivity syndrome" if housed in a poorly ventilated room, especially if kept with birds that produce a great deal of powder: Cockatoos, Cockatiels, Lovebirds or African Grey Parrots.

This powder is produced by specialized "powder down feathers" and is a white waxy substance composed of keratin. Powder down forms a water proof barrier for contour feathers. It is spread through the feathers when the bird grooms. The down is composed of very fine particulate matter which becomes airborne easily and spreads via air currents and air ducts throughout the environment.

The powder down can also cause irritation to people with respiratory problems and allergies. People with allergies may be able to tolerate these birds, but they should be aware of this before acquiring one of these dusty species.

**In the early stages of pulmonary hypersensitivity syndrome, the bird may appear normal, but wheeze when excited.** As the condition progresses, dyspnea (difficulty in breathing), a cough, and a bluish tinge to the facial skin (cyanosis) develops. Hypoxia or under oxygenation of tissues often leads to an increase in the number of circulating red blood cells (RBC) termed Polycythemia. This increases the viscosity of the blood so that it does not flow normally. Subsequent immuno- suppression may lead to Aspergillosis, a deadly respiratory fungal disease.

**Clinical symptoms, blood work, and high resolution digital radiographs may support the diagnosis, but a lung biopsy is necessary for confirmation.**

In order to prevent this, South American Species should be housed in well ventilated rooms without Cockatoos, Cockatiels, Lovebirds, or African Grey Parrots. In addition, an air cleaner with a HEPA filter is highly recommended.

Unfortunately, this pulmonary disease is often advanced when the owner first notice the problem get it diagnosed by a trained avian veterinarian familiar with this syndrome. Certain drugs may provide temporary relief, but there is no cure for this syndrome.