

A thorough evaluation of a bird's lifestyle is one of the most important components of the examination and medical care of avian species. It is important to understand the unique housing and nutritional requirements of each species, as improper husbandry can lead to many medical problems including infectious diseases, malnutrition, cage-mate aggression, or traumatic injuries. The following is a brief overview of the husbandry, restraint, and diseases of avian patients.

Housing:

- Provide a **large cage** or aviary for **multi-bird** housing to **minimize territorial stress** and maximize **space for flight**
- **Single birds** should be housed in a large indoor **cage based on weight and size**
- Offer **nest boxes for breeding** birds
- All birds require a large **variety of perching surfaces**; variation in texture and diameter allow for grasping, chewing, **exercising the feet** and subsequently **decreasing the risk of bumblefoot** (large birds, raptors)
- A **variety of toys** provides **environmental enrichment** and **stress reduction**. Always select toys appropriate to the size of the bird. Toys that are too small may be broken and ingested, which may lead to GI foreign body obstructions
- Food and water **dishes** should be made of **stainless steel or ceramic** material
- Food and water should be changed daily
- **Clean cage every 2-3 days** using dilute sodium hypochlorite (bleach)
- Utilize **indoor lighting** (UVA & UVB)
- **I.D. birds** with leg bands or microchips

Nutrition: Unique to each species

- **Parrots** - free feed **pelleted** diet
- **Canaries & Finches** - free feed **seed-based** diet
- Offer a variety of vegetables and fruits in addition to base diet
- Most birds do not require grit
- **Calcium supplementation** (bone, mineral block, crushed oyster shell, baked eggshell) is **important**, especially for **breeders and layers**

Toxic Foods:

- **Avocados** - cardiac toxin that causes heart failure and death
- **Chocolate** - even small amounts of may cause seizures, vomiting, diarrhea, cardiac arrhythmias, and death
- **Comfrey** - causes liver damage
- **Avoid** all foods that are **high in sugar or salt**

Handling/Restraint

Restraint:

- Birds should be brought to the clinic in a **cage or animal carrier**
- **Handle only stable avian patients**; unstable patients may be too weak to endure the stress of handling
- **Small birds**: briefly turn off light, grasp bird with towel; gently place head between middle and index finger, hold body with thumb and pinky finger (dominant hand)
- **Large birds**: ask owner to hand bird to you (if patient is trained to do so), then capture with towel; form Elizabethan grip with thumb and index finger under mandible (dominant hand), hold legs in place with opposite hand
- Avian **restraint boards** are also effective, especially for **radiographs**
- The restraint of large birds can be very challenging, and bites from their powerful beaks may result in severe injuries
- Do not attempt to restrain these animals unless you have had training or have a professional to assist you

Clinical signs of illness/critical condition:

- **Open-beak breathing**
- Wings out
- Tail bobbing
- Depression
- Feathers fluffed at bottom of cage (notify doctor)

Venipuncture sites: right jugular vein, basilic (wing) vein, median tarsometatarsal vein

Diseases

Dermatologic:

- **Flies** (hippoboscids) in aviary birds may transmit blood parasites
- **Lice, ticks, mites**
- Ulceration or folliculitis associated with bacterial infection
- **Stress bars in feathers** could indicate **poor husbandry, infections or self-mutilation**
- Remember: **feather picking is not always a psychological problem; disease must be ruled out**

Gastrointestinal:

- Normal **droppings contain both feces and urine**, which comes from the **cloaca**; fecal part should be dark/well formed; urinary portion should have white crystals (uric acid) & small amount of liquid urine; varies with diet
- **Swollen crop**, may be infectious: trichomonas (parasite), candida (fungus), or bacterial
- Viral, **proventricular dilatation disease (PDD)** associated with avian **bornavirus**: infection causes nervous system inflammation leading to **neurologic signs** and gastrointestinal dysfunction.
- Tapeworm, giardia, roundworms

Respiratory:

- **Aspergillosis:** fungal infection of the respiratory tract; may lead to fungal granulomas in the upper or lower respiratory tract

Reproductive:

- **Egg binding:** most common, **obstruction of egg(s) in reproductive tract.** Many factors may result in this condition: **poor nutrition, hypocalcemia, large eggs, obesity, tumors or infection of oviduct, stress, and genetics**
- **Egg Yolk Peritonitis:** occurs when ovulation occurs outside of the oviduct into the abdomen
- **Chronic egg laying:** may be modified by dietary and behavioral changes

Viral:

- Psittacine beak and feather disease
- Polyomavirus
- **Pacheco's disease:** parrot **herpesvirus, often fatal**

Zoonotic diseases:

- **Chlamydophila psittaci (Psittacosis):** one of most common bacterial respiratory diseases in pet birds; may cause severe illness in humans. Transmission through **inhalation or ingestion of spore-like phase of organism**
- **Exotic Newcastle disease:** transmission through direct contact with **viral** particles from aerosolized bodily fluids; may result in systemic clinical signs in birds. In humans, can result in sinusitis, lethargy, and conjunctivitis
- **West Nile virus:** transmission through **infected mosquitoes;** causes **neurologic disease** in animals and people
- **Avian influenza:** wild birds are the natural hosts of Influenza A; different subtypes of influenza A have infected people. Dangerous subtypes identified = H5 & H7. Infection can result in **flu-like symptoms and death in animals and people**

References

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