The Complete Avian Physical Examination : Evaluation of the Bird in the Cage

Peter S. Sakas DVM, MS
Niles Animal Hospital and Bird Medical Center
7278 N. Milwaukee Ave. Niles, IL

Introduction

- Quite often, avian practitioners are too quick to capture a bird and perform the physical examination without a careful inspection of the cage, cage contents and the bird in the cage.
- Once a bird is handled subtle signs of disease may be lost as the bird becomes excited.

Examination of Cage & Contents

- A careful examination of the cage and contents is essential for proper diagnosis
- The vast majority of problems seen in avian practice are related to poor husbandry
  - Evaluation of housing and nutritional status are very important
  - A large portion of the time spent in the avian consultation will be spent educating clients about proper husbandry and disease recognition

Cage/Cage Contents

- Food/Water Cups
  - Evaluate the level of sanitation
  - A filthy food and water cup may be responsible for GI disturbances
  - Food and water cups should be cleaned daily to minimize bacterial contamination

Cage/Cage Contents

- Food/Water Cups
  - Cups should be covered or placed in a location to be protected from fecal contamination
  - Cups should be of the proper size and construction for the variety of bird

Cage

- Is the cage of adequate size for the variety of bird?
- Constructed of material suitable for the variety of bird housed
  - Sturdy construction for large birds
  - Proper bar spacing for small birds

Cage/Cage Contents

- Too small of a cage will lead to damaged, dirty or tattered feathers

Cage

- Check for sharp edges or projections that may pose a hazard
- Is there extensive rust on the cage?
- If the cage is home-made or repainted are the materials non-toxic?
  - Many older cages have been painted with lead-based paint (can get lead testing kit)
  - Solder contains lead
  - Galvanized metal that is not properly treated may cause zinc toxicosis

Perches

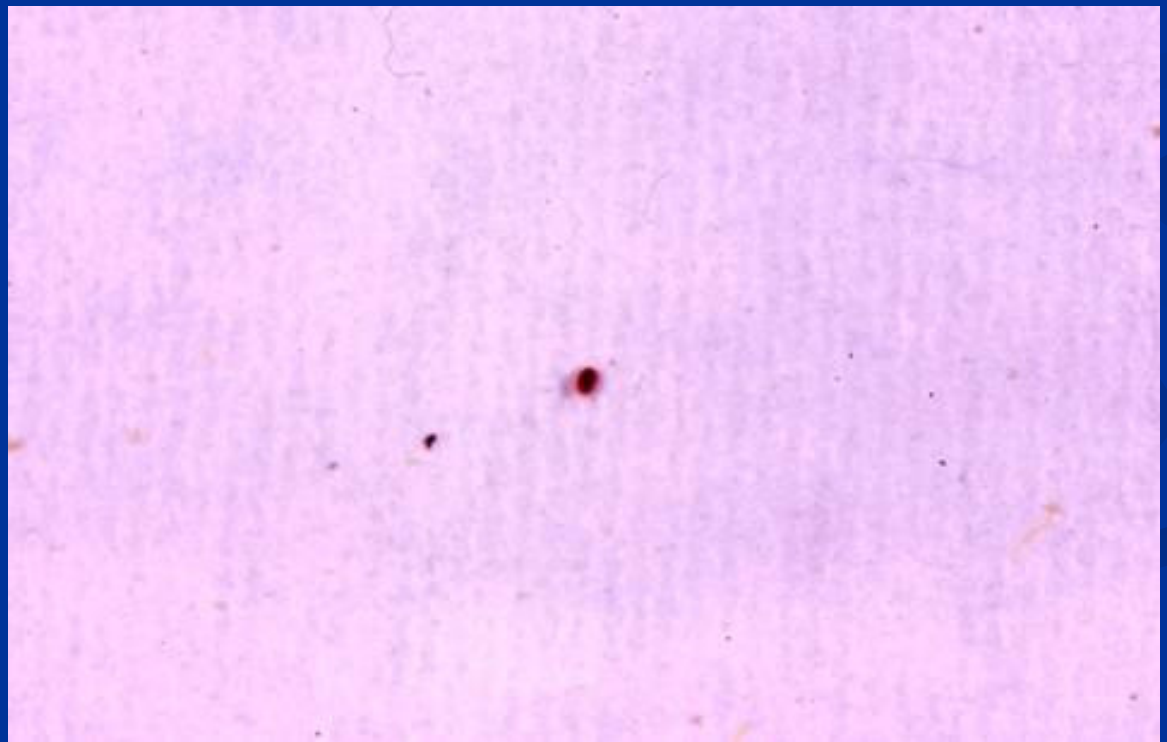
- Perches should be made of an easily cleaned material
- Variety of perch diameters is preferred
- Non-rigid perches should be present as well
- Sandpaper cover should be ren off perches
- Only one “rough type” perch should be used

Red Mites

- Clients are always worried that their “itchy” birds have mites-classically the red mite
- If present they will be seen on the cage fittings, in cracks and crevices, and in slots on the end of the perches

Red Mites

- The mites emerge at night to feed off the bird
- An engorged mite will be red in color, mites on the perches may appear whitish or black



Cage Toys

- Cage toys should be suitable for the variety of bird
- Larger birds can easily dismantle toys designed for small birds
- Glass mirrors are hazardous for large birds
- Certain toys may contain lead weights (e.g. penguin toy), check for cracks
- Check for sharp edges or hooks on toys

Cage Toys

- Bell clappers have frequently caused problems to both large and small birds
  - They chew on the clapper or hook which attaches it and can become impaled on hook.
- Bells can be a problem for large birds, as they try to pull bell off and get it lodged on their beak (frequently occurs with lovebirds)

Cage Toys

- Home-made toys must be evaluated for suitability and potential for toxicosis

Nutrition

- Evaluate the diet and level of nutrition of the bird
- What is the primary source of nutrition?
  - Seeds, pellets, home-made mixture?

Nutrition

- Are supplements given?
- If fresh fruits or vegetables are given it should be emphasized that they should be washed to eliminate any herbicide/insecticide residue

Vitamin A

- Check for vitamin supplementation, are vitamin A rich foods supplied?
- Vitamin A maintains the mucous membranes and epithelial surfaces
- Vitamin A deficiencies can lead to secondary infections, development of mucus, plaques, abscessation, etc. in the mouth

Calcium

- Check to be certain that there is adequate mineral supplementation
- Pelleted diets have adequate calcium and do not need to be supplemented
- Hypocalcemia may manifest itself as weakness, seizures or pathologic fractures
- Actively egg-laying birds need significant calcium supplementation

Grit

- Use of grit is controversial
- Only should be used sparingly as it is not continually required for replenishment of the gizzard
- Sick birds, especially with GI disturbances, tend to overeat grit
- Often the owner believes the bird i eating when it is actually only eating grit

Evidence of Eating

- One of the most important determinations that must be made is whether or not the bird is actually eating
- Even though a bird may appear to be digging into the food bowl it may not be actually eating

Evidence of Eating

- Is seed being hulled or scooped out of the bowl onto the floor?
- Check for seed hulls in the bowl
- Sometimes a bird may hull seeds and not eat them
- Hulled uneaten seeds may be seen on the floor of the cage

Evidence of Eating

- It is common for newly weaned parrots who have just been taken off formula to hull seeds and not ingest them
  - Owner believes that the bird is eating when actually it is not
- Many times the young birds are "playing" with the seed and not actually eating
- The bulk, form and consistency of droppings should be evaluated

Regurgitation vs. Vomiting

- If there are hulled seeds on the bottom of the cage it must be determined if the bird is regurgitating or vomiting

Regurgitation

- Regurgitation is a normal part of courtship behavior
- Regurgitated seeds may be seen on or near mirrors or toys
- Very common with budgies and lovebirds
- There can be quite large piles of hulled seeds with some birds
- There will be no seeds adhered to the head of the bird that is regurgitating

Vomiting

- Vomiting is abnormal and a sign of illness
- Vomited seeds are seen as sticky clusters throughout the cage, often adhering to the cage bars

Vomiting

- Further evidence is that the head feathers of the bird may be pasted with vomitus and sometimes mixed with seed

Evaluation of the Droppings

Evaluation of the Droppings

- Droppings are one of the most important indicators of avian health
- Ideally cage papers from an uncleaned cage, collected over a 24 hour period, should be brought in by the client so that the number and character of the droppings can be evaluated

Evaluation of the Droppings

- The normal dropping consists of three basic parts:
  - A formed fecal portion (usually green in seed eating birds)
  - An off-white urate crystal portion
  - A liquid urine portion

Evaluation of the Droppings

- Seed imparts no color to the feces so the green bile color predominates
- The fecal portion of the dropping changes color with the type of food consumed
  - Pelleted diets produce colored droppings, depending upon the color pellet consumed
  - Strawberries produce red droppings, for example

Evaluation of the Droppings

- Consistency of dropping varies with type of diet and bird variety
- Succulent foods (fruit and vegetables) will cause more watery droppings

Evaluation of the Droppings

- Pelleted diets may lead to increased water intake, hence more watery droppings in addition to the brownish color

Evaluation of the Droppings

- Droppings that have suddenly changed consistency and color could indicate disease
- Check the amount of fecal portion
  - If not eating there may be scant feces or a dropping that is predominantly urine
  - Reduction in feces also may indicate interference with the normal passage of feces, such as vomiting

Evaluation of the Droppings

- Birds do “urinate,” passing only liquid urine and urate crystals with no feces occasionally
- If these type of droppings predominate, a problem exists

Evaluation of the Droppings

- Watery droppings: are they due to polyuria or a GI disturbance?

Evaluation of the Droppings

- A somewhat formed fecal portion and excessive urine may indicate renal disease or a metabolic problem such as diabetes
  - Dietary changes, excitement and anxiety can also lead to more watery droppings

Evaluation of the Droppings

- A more liquid consistency to the feces suggests an intestinal tract disturbance

Evaluation of the Droppings

- Excessive mucus in the feces may show as a grayish coating

Evaluation of the Droppings

- Pancreatic insufficiency produces characteristic "popcorn" droppings that are bulky and off-white to gray in color

Evaluation of the Droppings

- Large or bulky droppings can indicate a malabsorptive condition or interference with the passage of feces (tumor or blockage of the cloaca)
- Large dropping may not always be abnormal
  - Some birds hold their droppings overnight and have a large, watery "morning" dropping
  - Fewer and larger droppings are seen in females going through a reproductive cycle
    - The enlarged oviduct presses upon the cloaca interfering with the passage of feces with resultant build up

Evaluation of the Droppings

- Undigested seed or grit in the droppings are abnormal and could indicate a gizzard malfunction or motility problems
- In finches, gastrointestinal hypermotility, bowel inflammation, lead poisoning and lack of grit may lead to undigested seed in droppings

Evaluation of the Droppings

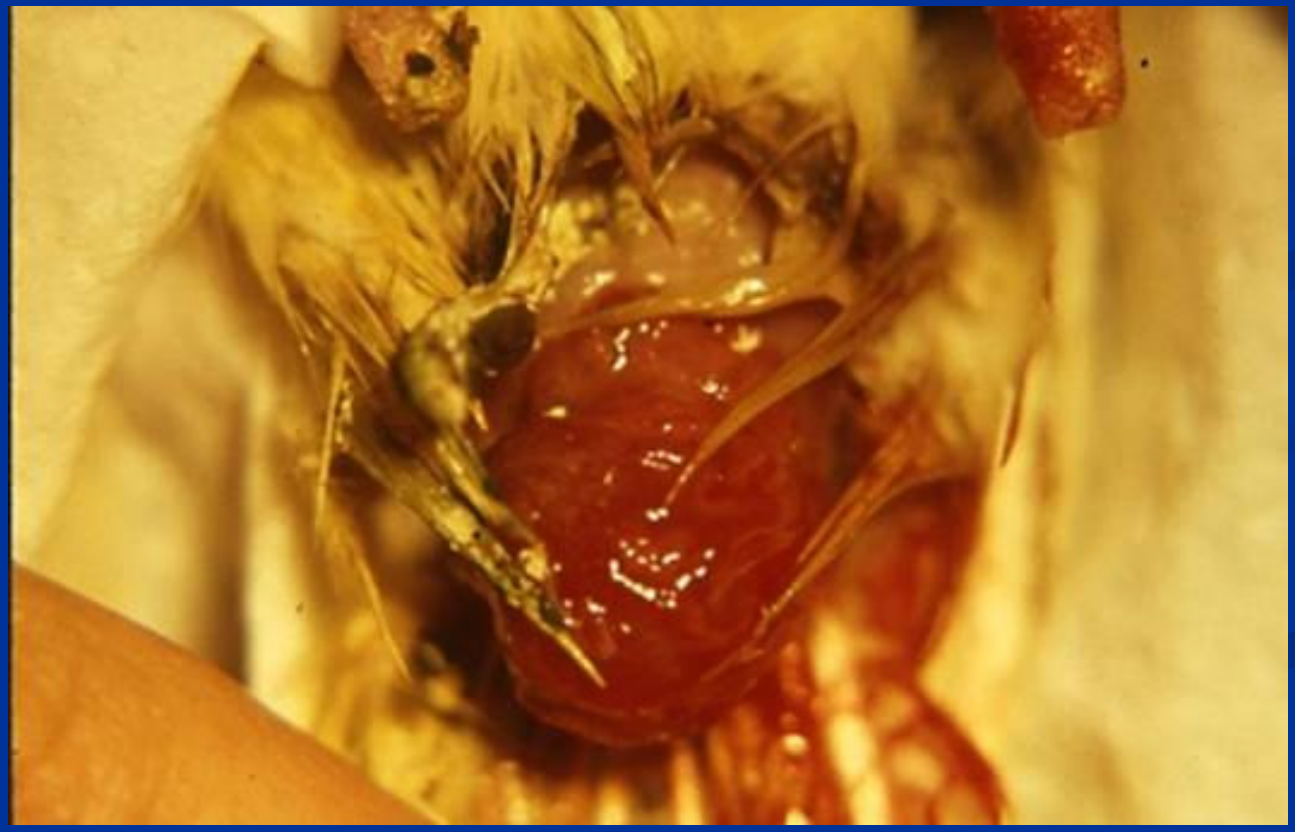
- Undigested seed material in the droppings is a characteristic symptom of Proventricular Dilatation Disease (PDD)

Evaluation of the Droppings

- Blood in the feces is usually from the cloaca or oviduct
- Severe cloacal inflammation, ulceration, or tumors may be responsible

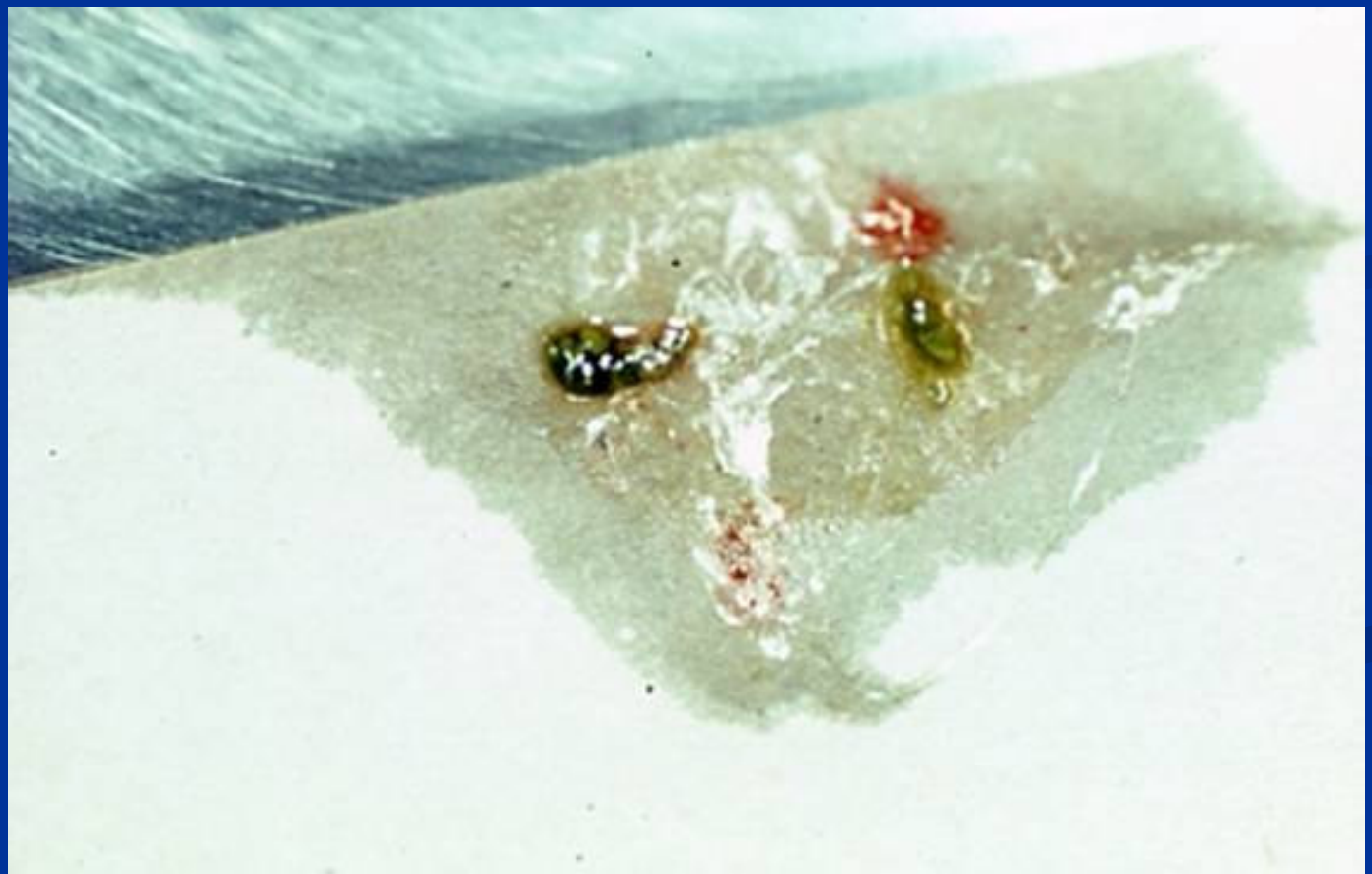
Evaluation of the Droppings

- Blood may be seen when there is difficulty in the passage of eggs



Evaluation of the Droppings

- Blood in the urine/urates may be indicative of a kidney disturbance



Evaluation of the Droppings

- Hemoglobinuria is classically seen with heavy metal toxicosis (lead or zinc)

Evaluation of the Droppings

- Reddish urine may be seen with ingestion of red colored foods

Evaluation of the Droppings

- Cloacal Papillomas
  - Seen in New World birds, commonly macaws, Amazons parrots, hawk-headed parrots
  - Produces straining while defecating and blood in the droppings
  - May notice the presence of "granulation" tissue (appears like a strawberry) around the vent and in the cloaca

Evaluation of the Droppings

- Yellow or neon green urates (biliverdinuria) may indicate hepatitis
  - Neon green urates may be indicative of Chlamydiosis

Evaluation of the Droppings

- Dark green urine and urates may indicate liver failure

Evaluation of the Droppings

- If discolored urine or urates are seen on newspaper, check the other side to be certain that it is not the colored ink “bleeding” through

Examination of Bird in Cage

- One of the most common mistakes made by the practitioner during the examination is handling the bird too quickly
- Due to excitement the subtle signs of disease are lost
- View the bird from a distance until it calms down
- Glance over at the bird while you are taking the history so you can observe it and evaluate clinical signs

Examination of Bird in Cage

- The bird in a new environment will be alert, attentive and bright-eyed
- Often the client is surprised that the bird that seemed so sick now appears to be normal
- Usually this is when the bird is in the early stages of disease and is still able to mask its illness effectively

The Healthy Bird

- Should have an erect posture on the perch
- Weight evenly distributed on both feet
- Wing tips crossed over the back
- Tail held at same angle as back (straight line)
- Feathers sleek and held close to the body

The Sick Bird

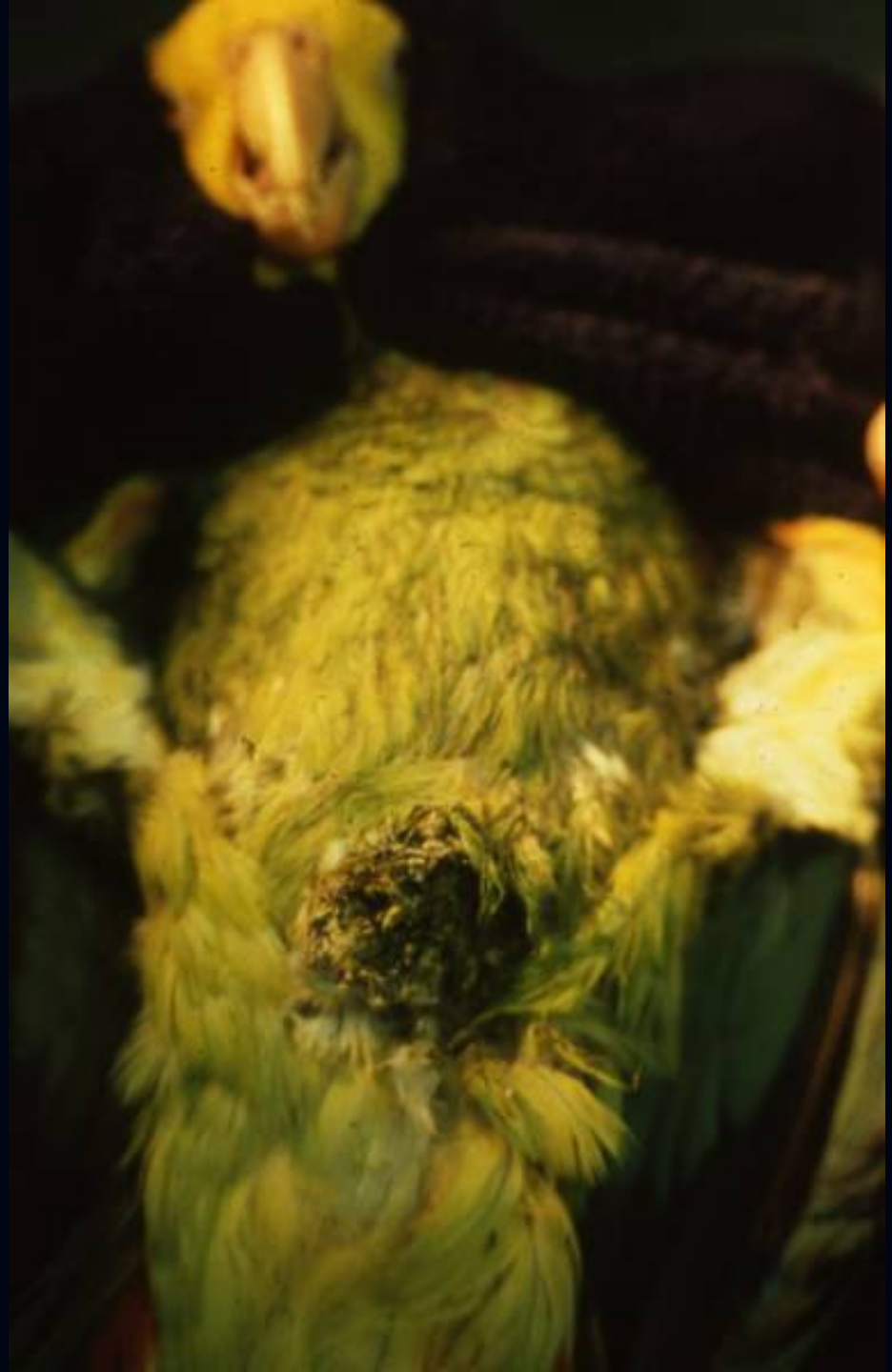
- Poor posture on perch
- Perching unsteadily, wobbly
- One or both wings drooped
  - A single drooped wing may indicate injury to muscle/bone, nerve paralysis, neoplasm
  - Both wings drooped indicate generalized weakness
- Sits with ruffled feathers
- Head tucked behind wing
- Appears lethargic/drops off to sleep in exam room

The Sick Bird

- Ruffled birds are chilling and need heat
- Birds huddling on the bottom of the cage and extremely ruffled are critically ill
- These birds should be handled with extreme caution as any undue stress could cause death

Feathers

- Feathers should be clean and well-preened
- Dirty, tattered feathers may indicate a lack of preening due to illness, mechanical trauma due to poor housing or emotional upset
- Staining of the feathers above the nares indicates nasal discharge (rhinitis)
- Pasting of the head feathers is seen with vomiting
- Droppings stuck to the vent may indicate a GI disturbance or an abdominal mass



Feet/Legs

- Restlessness/shifting of weight or favoring of leg may indicate pain or dysfunction (from disease or injury)
- Stiffness in feet/toes could indicate gout

Feet/Legs

- In budgies, unilateral paralysis or paresis may be due to renal enlargement from renal adenocarcinoma

Respiration

- Evaluate breathing and respiratory rate
- When a bird breathes there should be little effort and no obvious sounds
- Tail bobbing is a sign of impaired respiration, due to respiratory disease or abdominal enlargement

Respiration

- A dyspneic bird (mouth open and gasping) is in critical condition and should be handled with extreme caution, if at all
- A dyspneic bird may not always have a respiratory condition
  - Possibility is that there may be a space-occupying lesion in the abdomen that prevents full expansion of the posterior air sacs

Respiration

- A bird in extreme respiratory distress may be cyanotic, indicated by bluish color of the feet and/or legs
- Do not be fooled by the normal bluish color of the legs of some birds
  - Normal bluish coloration of the legs/feet of a sexually mature male budgie

Respiration

- Breathing hard at rest or heavy breathing after a short period of exercise or exertion can indicate a problem
- Any respiratory noises heard while breathing are abnormal
  - Wheezing, clicking, frequent sneezing
- Nasal discharge may appear as fluid in the nostrils or staining of the feathers above the nares

Goiter/Thyroid Dysplasia

- Incessant high pitched squeaking in budgies may be thyroid dysplasia
  - Respiratory wheeze on inspiration and expiration
- Due to thyroid enlargement caused by iodine deficiency
  - Enlarged thyroid gland impinges on trachea and syrinx (voice box) causing dyspnea
- Condition responds nicely to iodine supplementation

Neurological Conditions

- Torticollis, opisthotonos, ataxia, arching, seizures can be seen in pet birds
- May be due to a variety of causes:
  - Vitamin deficiency
  - Hypocalcemia (common cause)
  - Head trauma
  - Cerebral vascular disturbances
  - Tumors
  - Toxicoses (lead, zinc)
  - Infection (paramyxovirus in pigeons)

Exotic Newcastle Disease

- If you suspect a bird has been smuggled and it is showing neurologic signs, Exotic Newcastle Disease must be considered
- Contact the USDA immediately
- Keep the bird in extreme isolation, away from other birds
- A variant is paramyxovirus, seen in pigeons, which also causes neurological signs


Loreleystadt - St Goarshausen

Conclusion

- Once your evaluation is complete you can begin the “hands on” physical examination.
- The additional time you spend evaluating the cage, cage contents and careful observations of the bird in the cage will be well worth it as you evaluate the health status of the avian patient.