

Health & Anatomy Part 2

Created by The Gabriel Foundation



Birds have unique respiratory systems



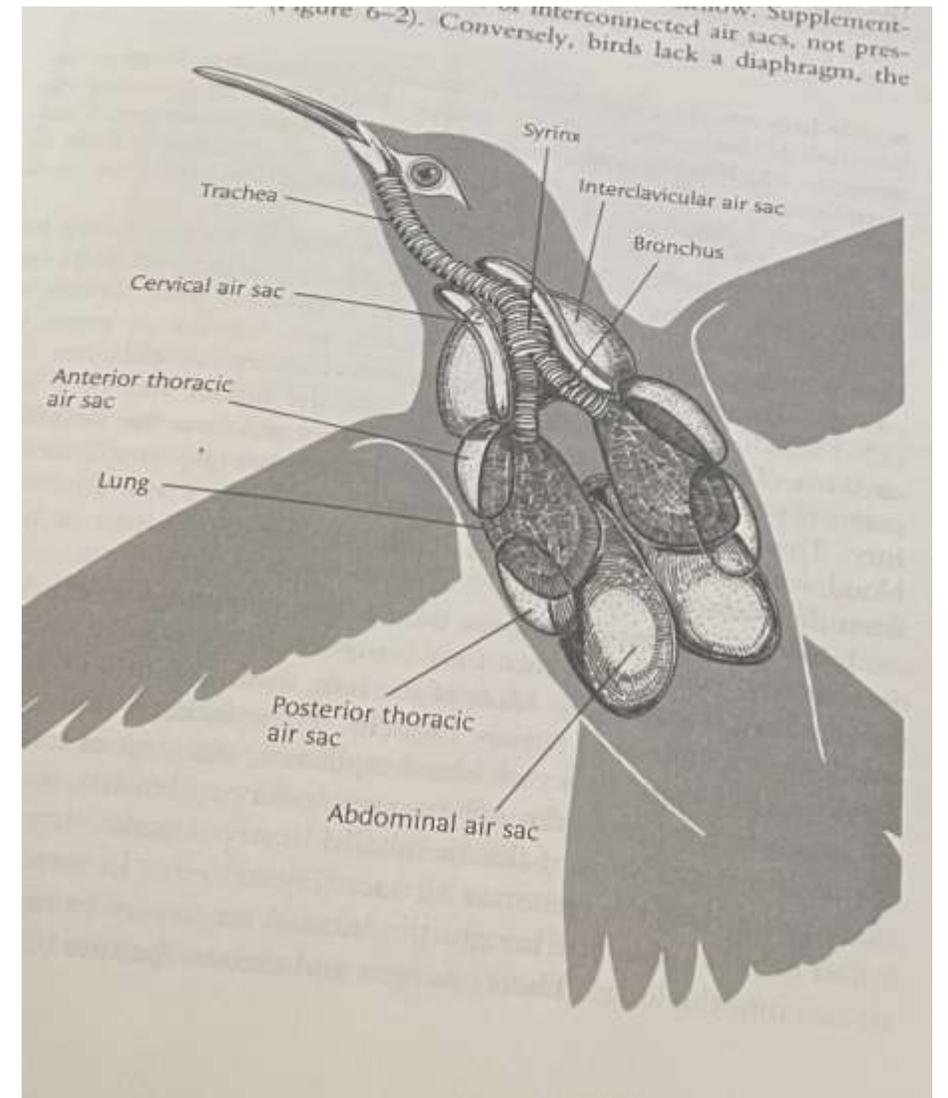
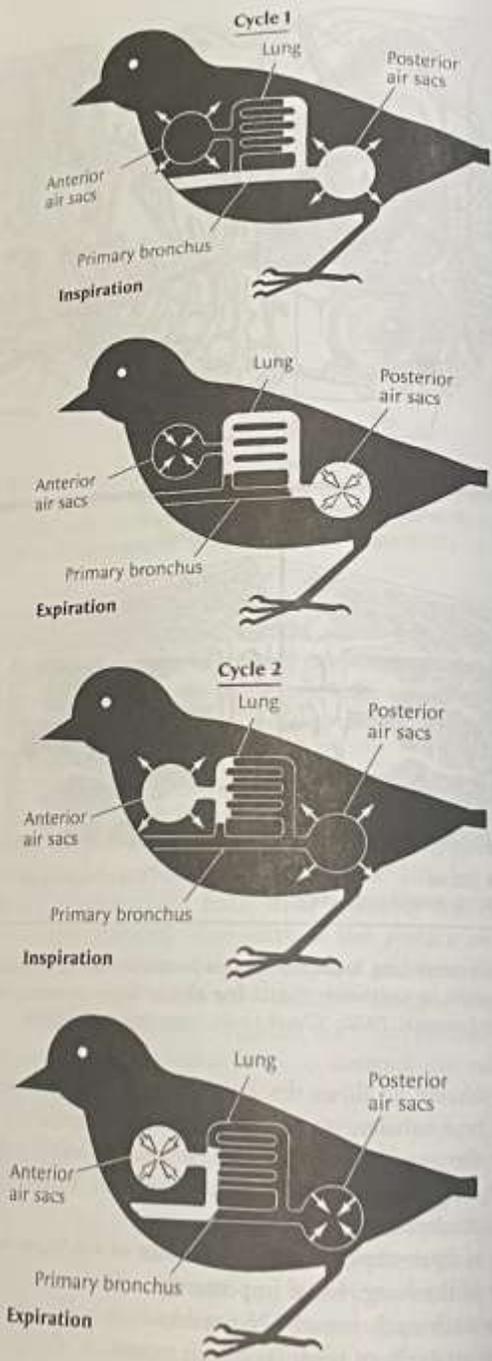
Bird Lungs

- Each breath a bird takes stays in its body for two cycles before it is exhaled. Because of this they can take up oxygen regardless of whether they are breathing in or out, which is critical for flying.
- Birds also have many air sacs distributed throughout their body that assist with respiration.
- Birds have stiffer lungs than mammals and do not have a diaphragm, so to move air in and out of their body they rely on their chest muscles moving the keel bone up and down.

More on Respiratory Anatomy

The diagram to the left shows the flow of air through a bird's respiratory system. Here you can see the 2 cycles mentioned in the previous slide! The diagram to the right shows the many air sacs and key organs in a parrot's body. They are a vital part of the respiratory system.

Gill, F.B. (2007)
Ornithology, Third Edition. New York, NY: W. H. Freeman and Company, pp. 146, fig. 6-5.

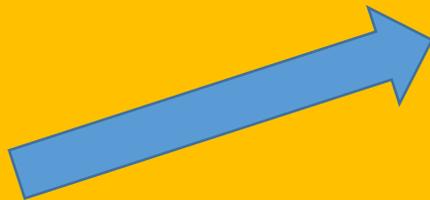


Gill, F.B. (2007) *Ornithology, Third Edition*. New York, NY: W. H. Freeman and Company, pp. 143, fig. 6-2.

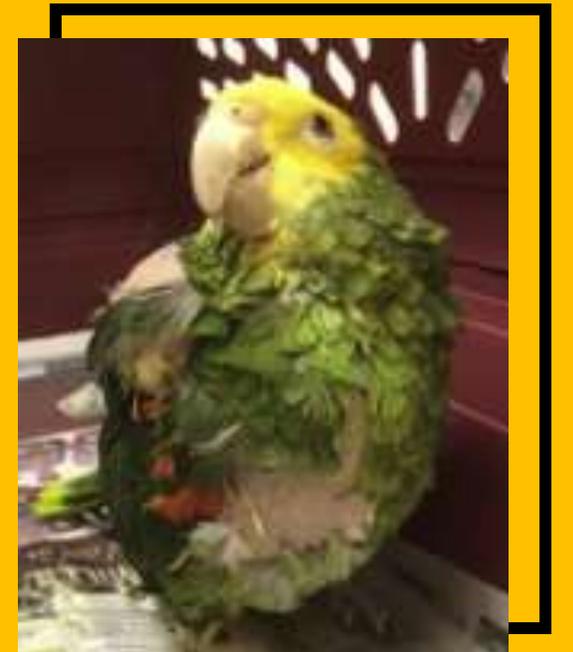
Ruptured Air Sac

It sounds scary, but a ruptured air sac is more common than you think.

If a bird takes a blow to the body or perhaps plays a little too rough with a toy, an air sac can rupture and release air under the skin. This results in what looks & feels like an inflated balloon. The bird then has control of inflating and deflating it at will! This does not hurt the bird.



Examples of ruptured air sacs. This may look different depending on which air sac is ruptured.

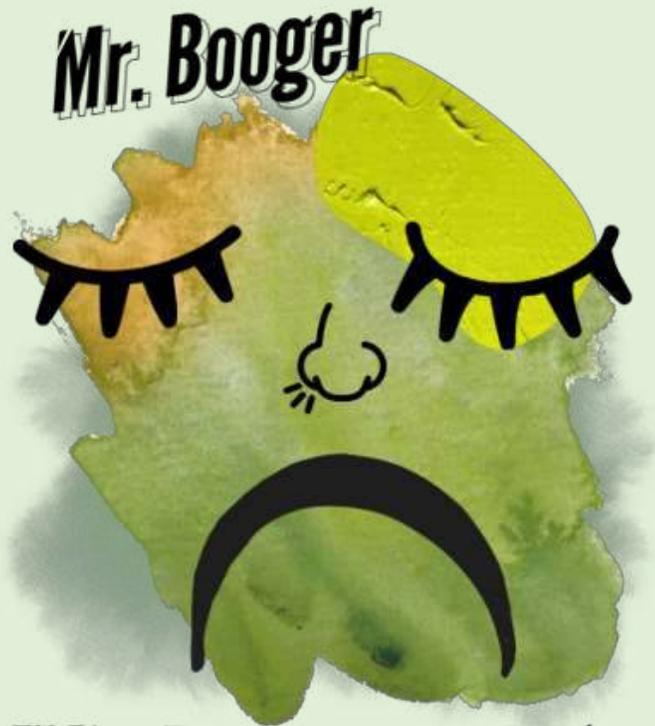


DIRTY AIR

- Birds are extremely sensitive to airborne particles and chemicals such as PFOA, PTFE (found in **Teflon** coatings,) **candles, incense, wood smoke, essential oils, aerosol sprays, cigarette smoke,** and other smoke in general. The self-clean feature on **ovens** can also release harmful chemicals.
- In addition to the smoke of cigarettes, **nicotine** is harmful to birds. The smoke from vapes, marijuana, and THC is also dangerous. You should always wash your hands to remove nicotine and other chemicals after smoking before you handle your birds.
- Keep the air well ventilated around your bird, and you may consider investing in air purifiers!



Boogers and Nose Bleeds



Why Does Everyone PICK On me?

Birds get boogers too! Try to gently clean the nares (nostrils) with a Q-tip if you notice a buildup of snot that may impede their breathing.

Birds can also experience nose bleeds in dry climates. A vet can do a nasal flush with saline water to get out some of the debris that might be caught in the nose. In those instances, investing in a humidifier to place near the bird's cage is a good idea!

Excessive snotty discharge is not normal, so if you observe unusual snot, it is best to consult a vet.

How Do Birds Digest Their Food?

Parrots have a crop, which is an extension of the esophagus that holds food waiting to be released into the proventriculus (stomach) for digestion.

If your bird has eaten a large meal, you may notice the crop as a bulge on the bird's neck. Crops are generally on the bird's right side and may get smaller as the bird continues to digest its food.





How much food?

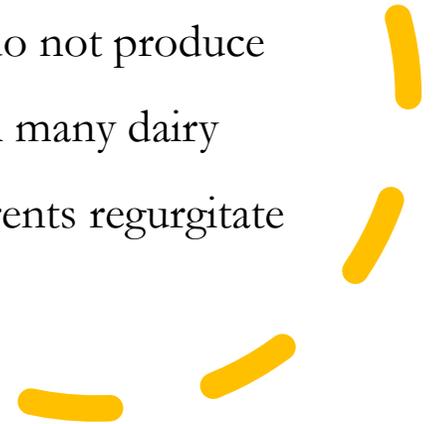
Your bird does not necessarily need access to food 24/7, since it is able to continually supply its body nutrients from food stored in the crop throughout the day!

However, the crop should rarely be completely empty. At TGF we feed two meals a day, though birds will, of course, accept treats and snacks between meals!



Birds and Dairy

Baby parrots eat what their parents eat! Adult birds do not produce milk and birds are not built to digest lactose found in many dairy products at any stage of their life. Instead, parrot parents regurgitate partially digested food for their young!

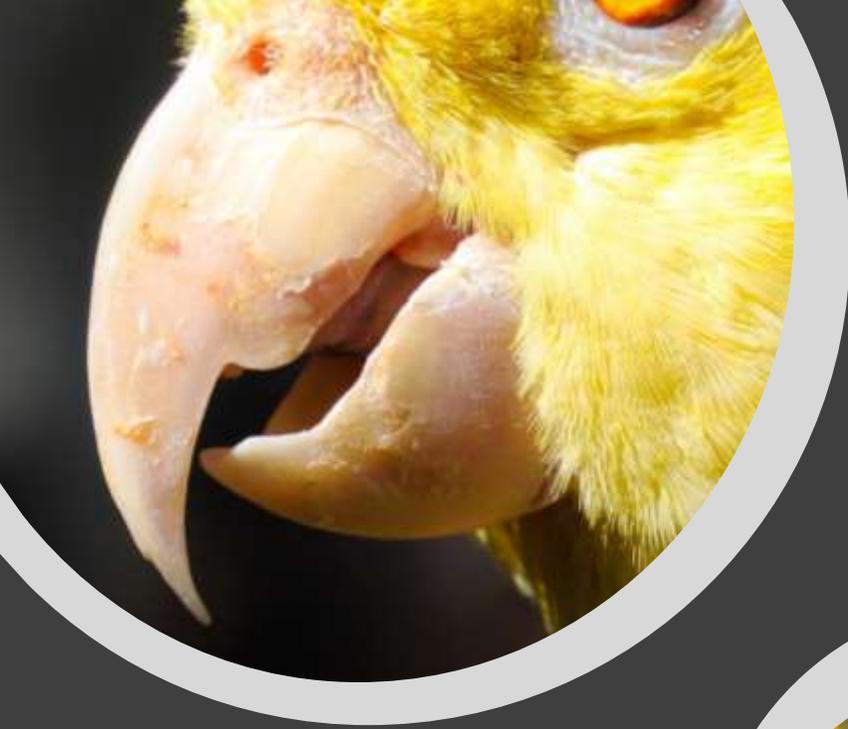




Regurgitation Versus Vomiting

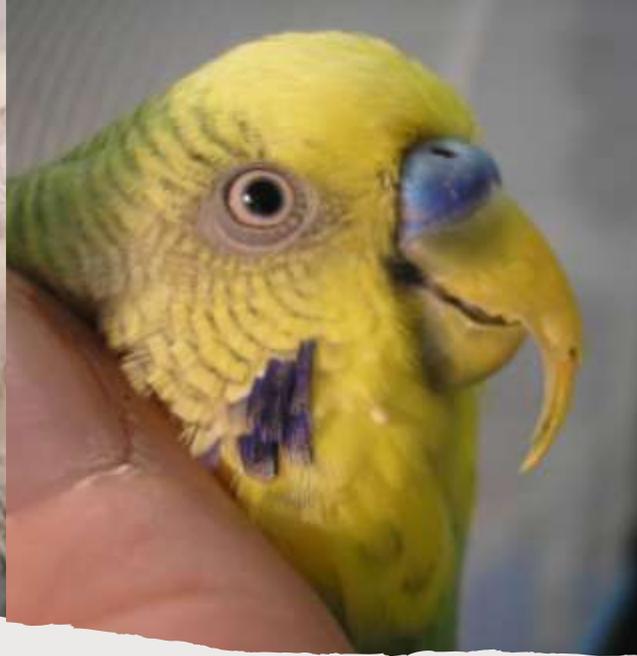
Regurgitating food from the crop is often a sign that a parrot is seeking a mate relationship. They may regurgitate for humans, a favorite toy, or even themselves. Redirecting this behavior is best, before it causes any additional behavioral problems.

Vomiting is not the same as regurgitation, and a vomiting bird is cause for concern. It can be difficult to distinguish vomiting from regurgitation, but vomiting is typically an uncontrolled projectile expulsion from the bird's beak.



Healthy Beaks

- Beaks are composed of a bony structure, over which a keratin sheath grows.
- Keratin is the same material that feathers, hair, and fingernails are made of. Keratin grows slowly but continually.
- Birds wear down their beaks by chewing.
- Beaks contain nerve endings for sensitivity.



Overgrown Beaks

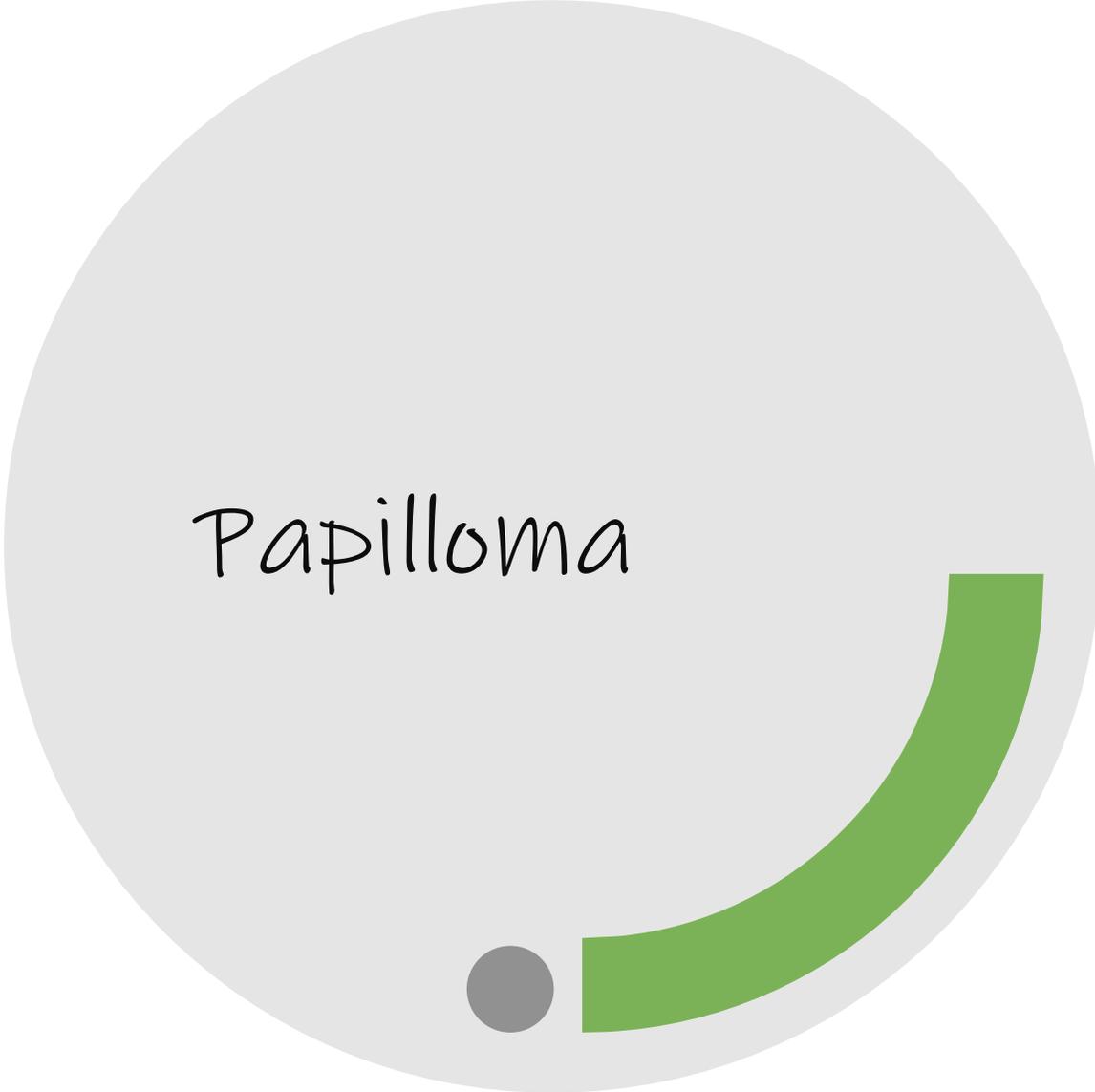
- A healthy beak should never need trimming!
- Beak trims are only recommended for beaks that grow too quickly (usually caused by liver problems) or if the beak is misaligned and cannot be worn down evenly through regular wear.
- You cannot trim a parrot's beak to prevent it from biting you, or to make bites hurt less.
- Parrots need to be provided with plenty of toys for them to chew and shred in order to naturally wear down the beak.

Chlamydiosis

- *Chlamydia psittaci* is a bacteria that can infect both birds and humans. It can be transmitted from birds to their caretakers, and it can be difficult to treat.
- TGF requires all adopters with birds currently in their household to have a negative chlamydia test before taking a new bird home.
- To keep our flock safe and healthy, all relinquished birds are tested for chlamydia, and all birds boarding in our facility must provide proof of a negative chlamydia test.



- Several birds at TGF have internal papillomatosis, which is a condition that results in tumors or lesions on the bird's digestive tract. These lesions may bleed, resulting in bloody stools on occasion.
- Internal papillomatosis in parrots is often associated with the herpes virus, which may be linked to Pacheco's disease. This connection is still being investigated.
- Parrots with papilloma are at an increased risk of developing cancer of the biliary duct or pancreas.
- Treatments for papilloma have been developed, but they are not always 100% effective.
- Families who already have birds in their household can still adopt birds with internal papillomatosis since good hygiene prevents transmission of the condition, however you may wish to consult with your avian vet before bringing the bird home.



Papilloma

Health Monitoring

- At TGF, we weigh our birds monthly in grams and monitor changes in weight. We recommend that you do the same at home using a kitchen scale or a similarly simple scale!
- A change in weight of 10% or greater (gain or loss) may be cause for concern.
- If you are concerned about your bird's health or weight, you can weigh more frequently.
- It is best to weigh first thing in the morning after a morning poop, as weight will vary throughout the day.
- In addition to weighing your bird regularly, pay attention to how much your bird is eating and drinking.



Health Monitoring

Behavior can provide fantastic insights to our birds' health.

Developing a consistent routine can help you monitor any behavioral changes!



Symptoms of illness and injury

If your bird shows any of these symptoms it is advisable to contact your avian veterinarian.

- Change in appetite or excessive thirst
- Unusual body posture or stance, poor grip, incoordination and frequent falling
- Unusual feather changes (change of color, barring)
- Changes in poop
- Sudden behavior change. (Examples are aggression, sitting on the bottom of the cage, vocalizing significantly more or less)
- Lethargy and excessive sleepiness
- Blood anywhere except coming from broken feathers
- Keeping body feathers fluffed out, or drooping wings
- Unusual respiratory systems
- Lumps or swelling
- Runny or snotty nose
- Feather plucking
- Prolapses
- Seizures
- Vomiting (not the same as regurgitation)
- Clogged uropygial gland
- Clouding of eyes or blindness

Veterinary care

It is recommended to take your bird to the vet yearly for a wellness exam and have regular blood tests done. This provides you with a baseline to compare against as your bird ages or if they become sick.



Don't have an
avian vet?

Reach out to us at TGF for recommendations in your area!

You can also find vets with a specialty in avian medicine on
the Association of Avian Veterinarians website

<https://www.aav.org>



Rainbow Bridge

- In the event of your bird's death, TGF recommends having a necropsy performed to determine cause of death. This is especially important if you have other birds in the home in order to rule out any contagious diseases that could spread to the rest of your flock.
- To preserve a bird for necropsy, run cool water over the body, wrap them in paper towels, and put them in a refrigerator. Do not put them in the freezer, or you may destroy the tissue, making histopathology impossible.



*You're
Amazing!
Thank you*

Thank you for completing Part 2 of our Health and Anatomy BBB presentation!
Next, please navigate to our website to complete the Health & Anatomy quiz.