

comparative imagery

Avian Respiratory Disease: Part 1—The Body

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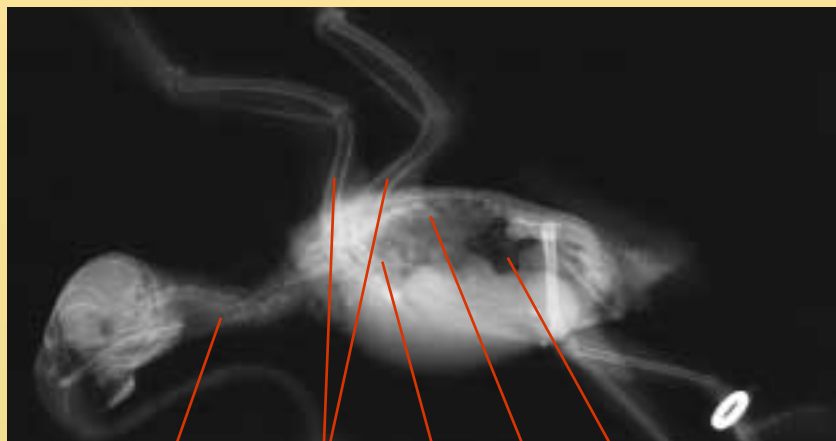
The avian respiratory system is extensive and complex. Becoming familiar with the normal presentation of respiratory anatomy through use of different imaging techniques will enhance a clinician's ability to make a diagnosis. This is the first of two articles using radiographic images and computed tomography (CT) to compare normal respiratory structures of the avian respiratory system. Note that the size of the patient dictates the size of the CT image. In this case, the patient is very small; thus, the images have become somewhat blurry with enlarging. Nevertheless, contrast is an important factor in CT imaging and the structures are quite clear. This article focuses on the body; the next part will address the head. ■

Ventrodorsal view of Hispaniolan Amazon parrot (*Amazona ventralis*). Note the uninflated air sac system (outline).

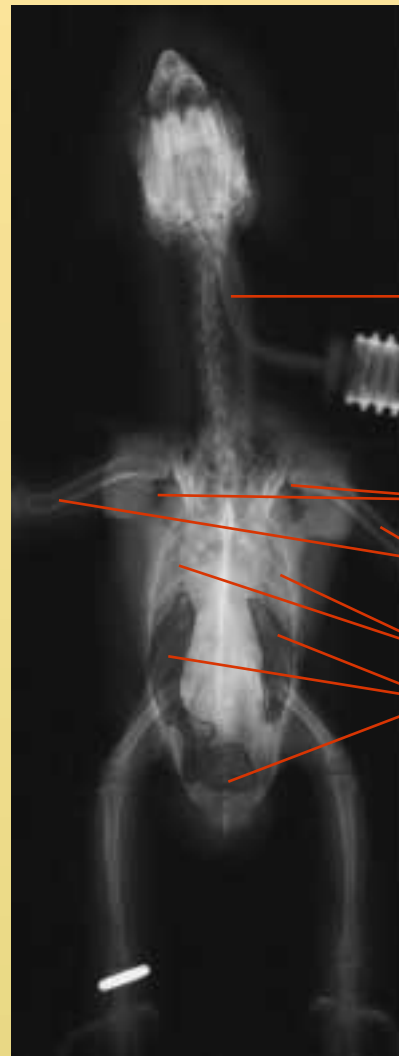


Ventrodorsal view showing increased contrast when the air sac system is inflated (outline).





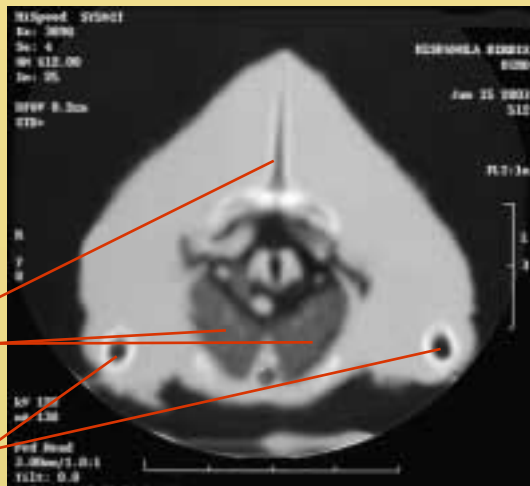
Trachea Pneumatic Bones (Humerus) Syrinx Lungs Thoracic Air Sacs



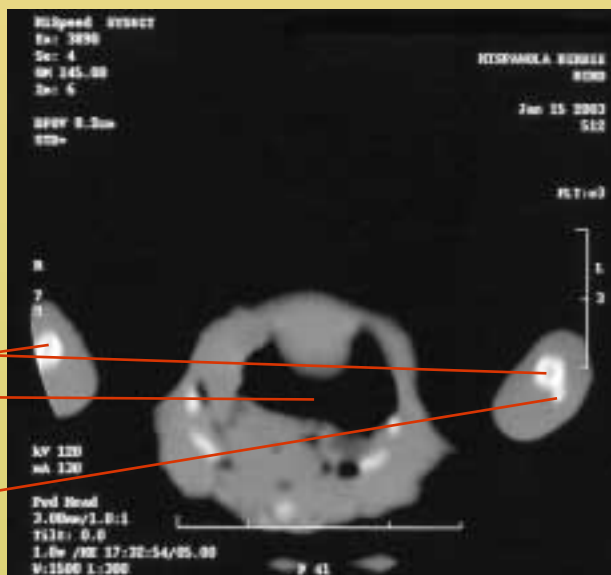
Dorsoventral view using air sac inflation with prominent respiratory structures labeled.

Trachea
Clavicular Air Sacs
Pneumatic Bones (Humerus)
Lungs
Thoracic/Abdominal Air Sacs

CT showing the enhanced image of the lungs when using the respiratory window. "Windows" on CT imaging equipment allow one to selectively enhance the appearance of various structures and tissues.



Sternum (keel)
Lungs
Humerus



Ulna
Thoracic Air Sacs
Radius

CT of the thoracic air sacs using the soft tissue window.