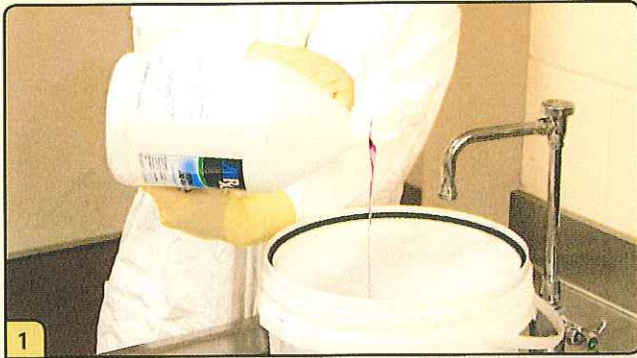


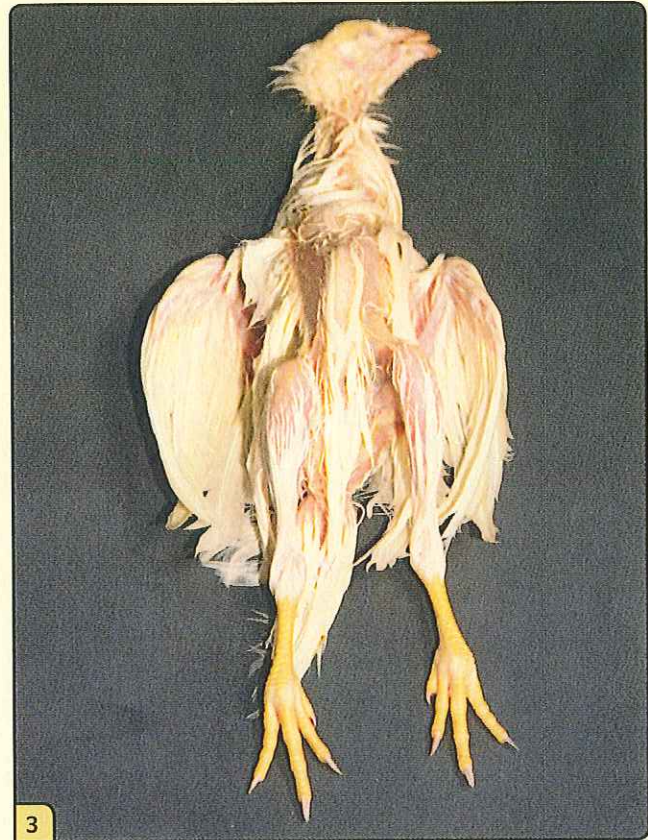
3 NECROPSY EXAMINATION OF POULTRY



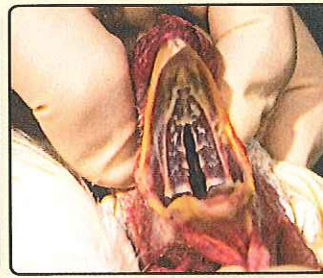
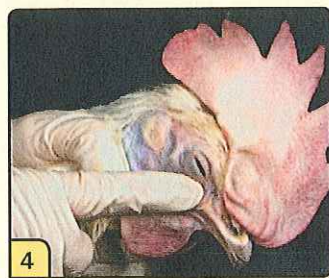
Prepare a solution of detergent and water, mixed at the concentration stated on the label.



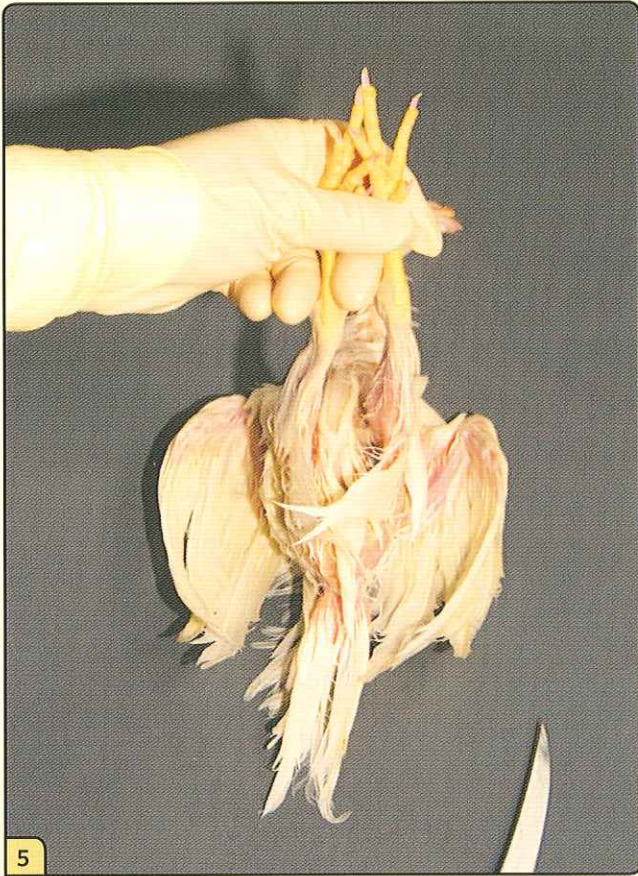
To keep the examination field free of feathers and dander, dip the body of the chicken from the neck down in the solution.



For ease, the poultry necropsy exam may be performed on an elevated table that can be disinfected.

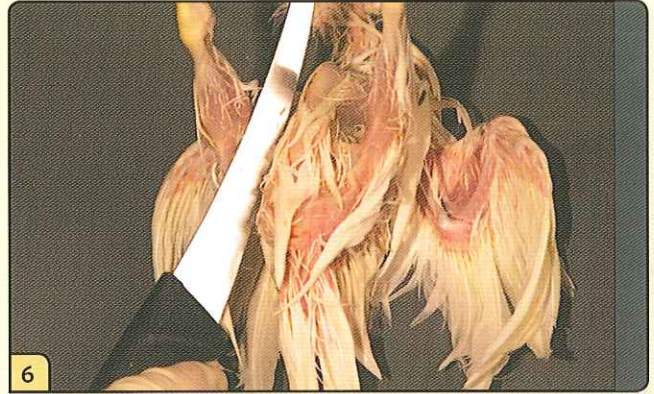


Perform an external examination of the chicken. Examine the infraorbital sinuses and nares, eyelids and conjunctiva, oral cavity, and vent.



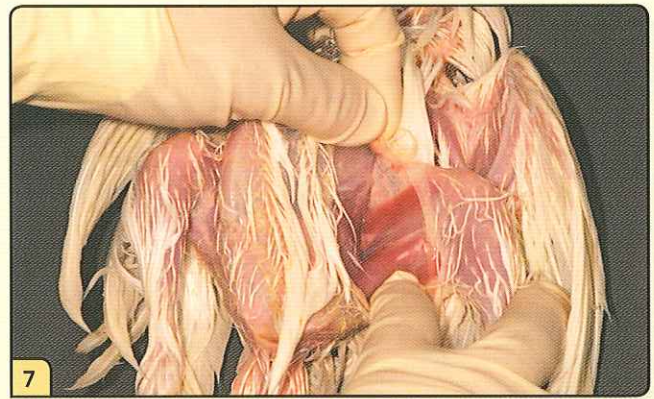
5

To remove the skin, begin by elevating the legs.



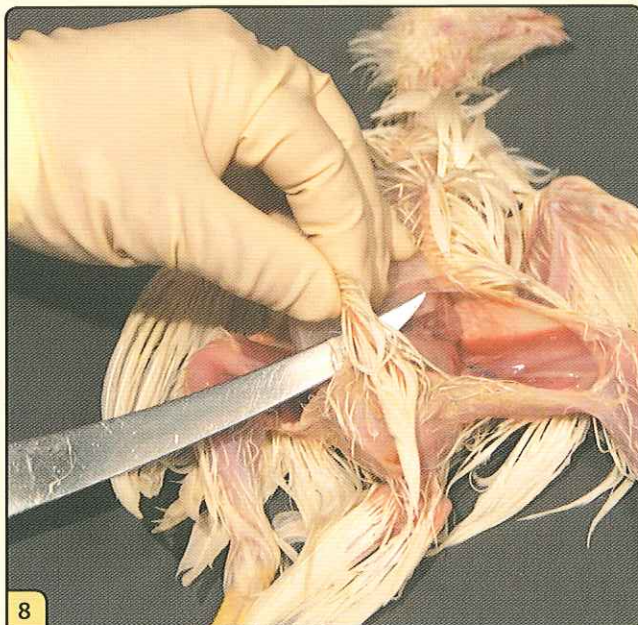
6

Cut the skin between the leg and abdomen on both sides.



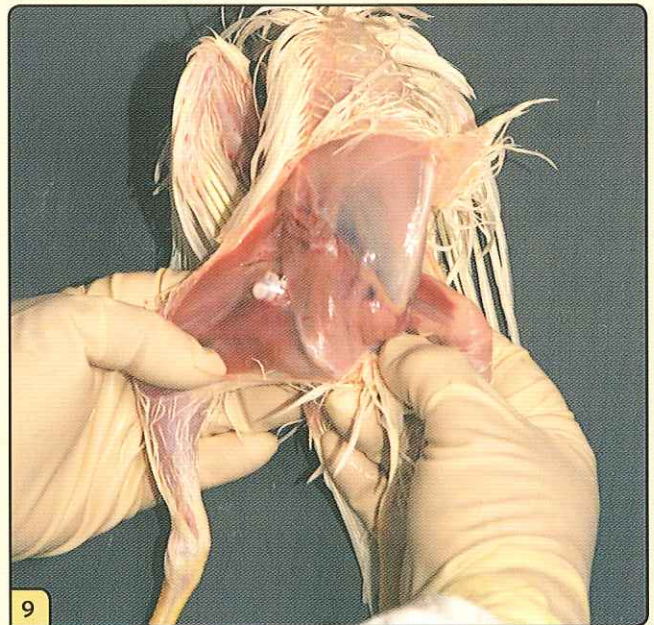
7

With your fingers, expand the opening.



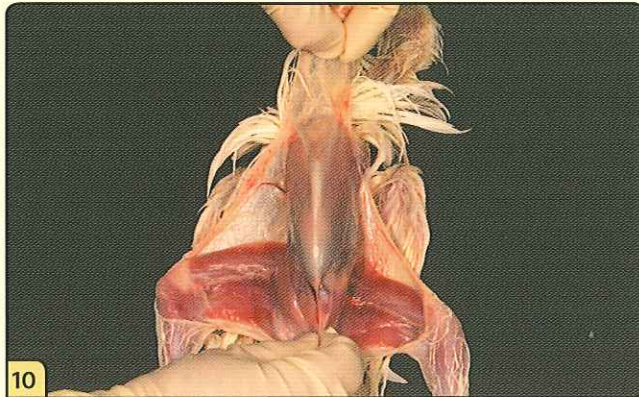
8

Lift and cut the strip of skin over the abdomen.

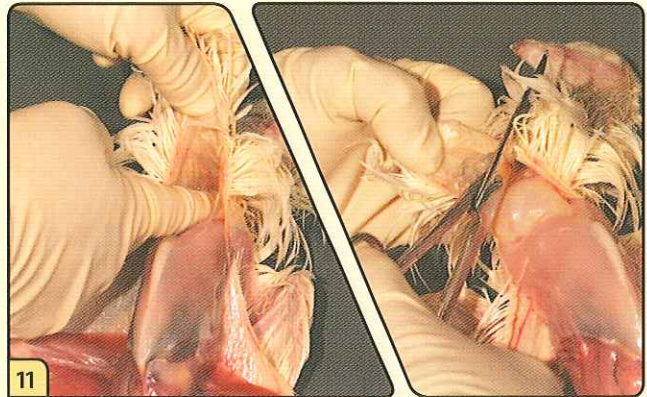


9

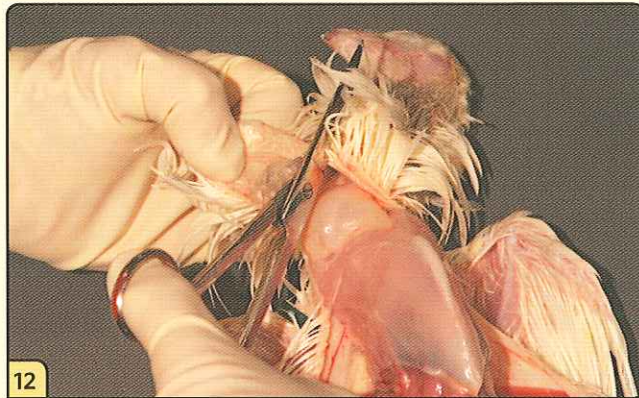
Disarticulate the femurs from the coxofemoral joints.



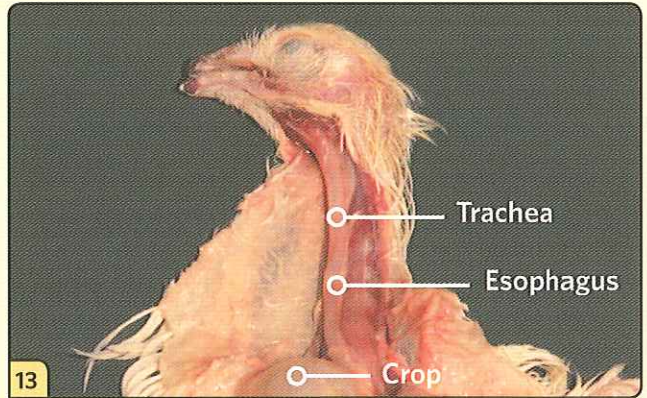
10 Peel the skin toward the entrance of the chest to expose the breast.



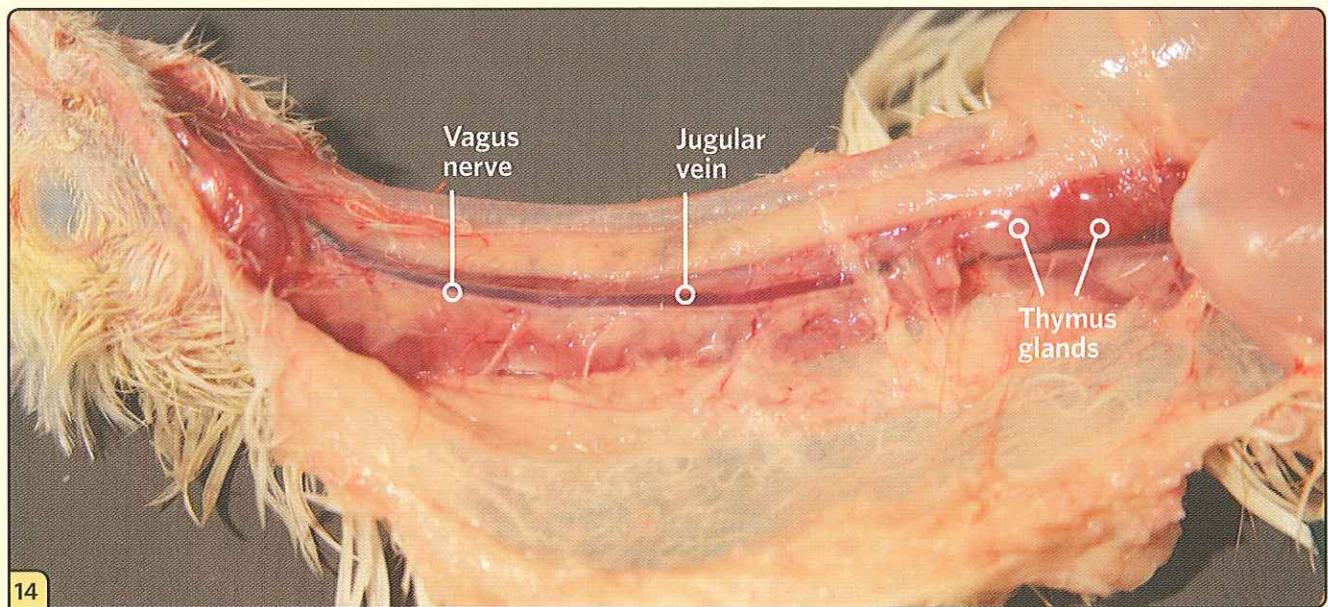
11 Separate the skin on the neck from the underlying neck tissues, alternating between the use of fingers and scissors.



12 Using scissors, fully expose the underlying tissues of the neck.



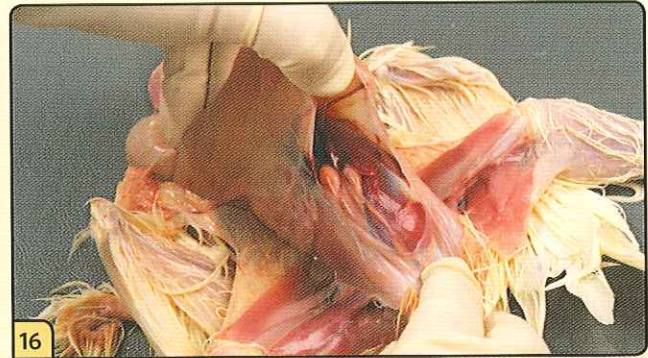
13 Examine the tissues in the neck, including the serosal surfaces of the trachea, esophagus, and crop.



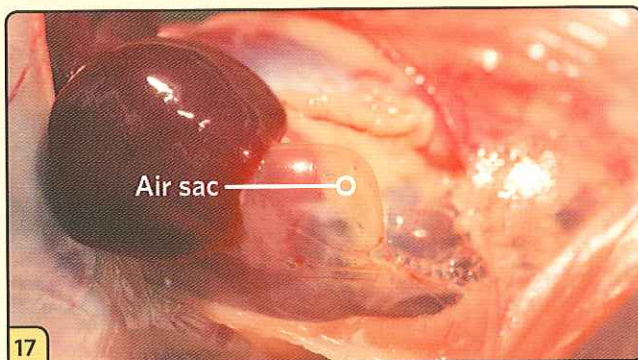
14 Examine the thymus glands, present in immature poultry only, as well as the nerves and great vessels of the neck.



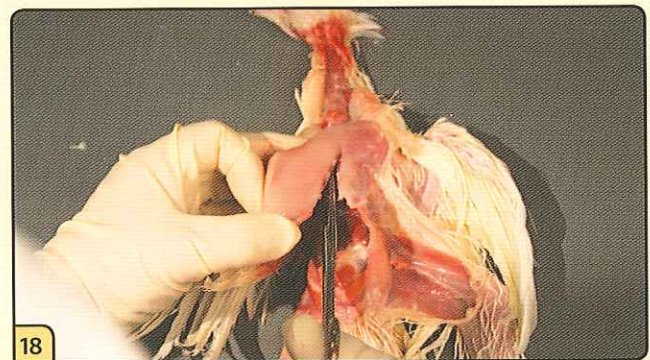
15 Make a small cut through the abdominal wall at the tip of the keel.



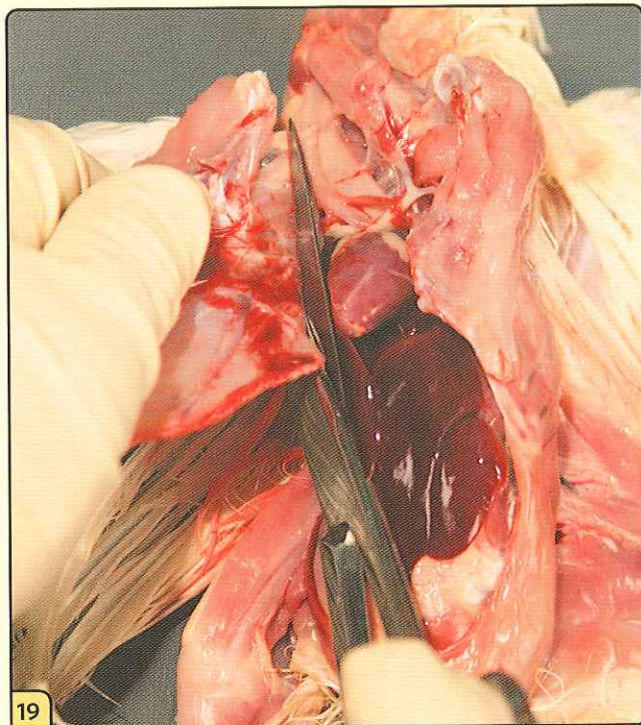
16 Place your thumb under the edge of the keel and lift carefully to avoid tearing the air sacs.



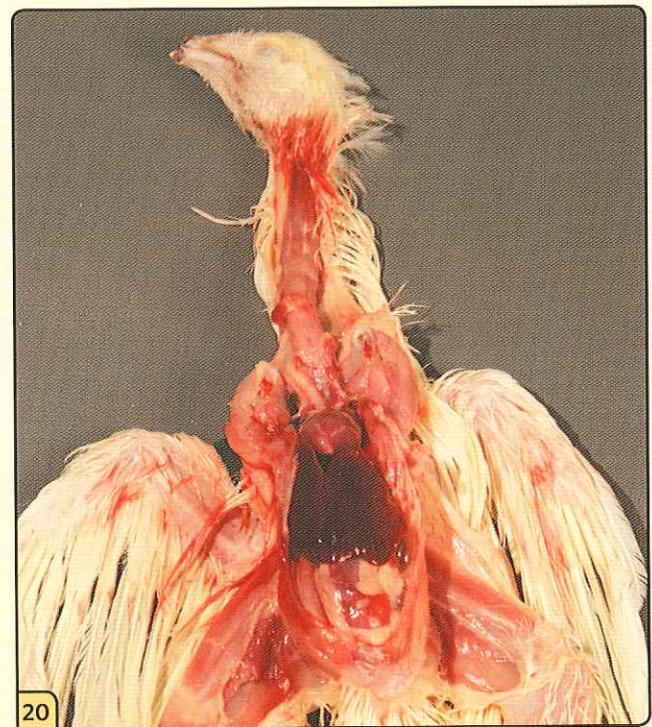
17 Examine the thoracic and abdominal air sacs looking for foam, fibrin, veins, fluid, and exudate.



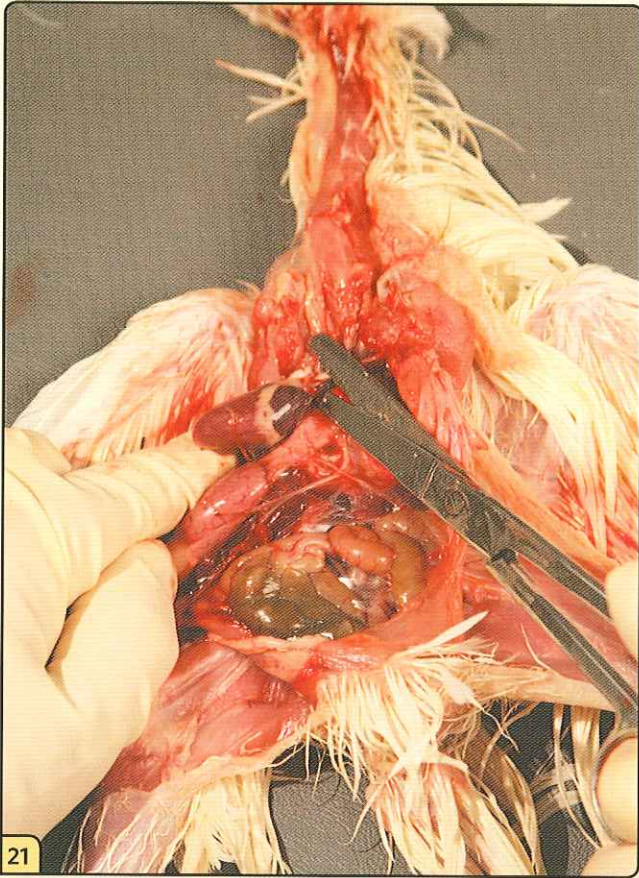
18 Make a longitudinal cut above the rib joints on both sides of the keel.



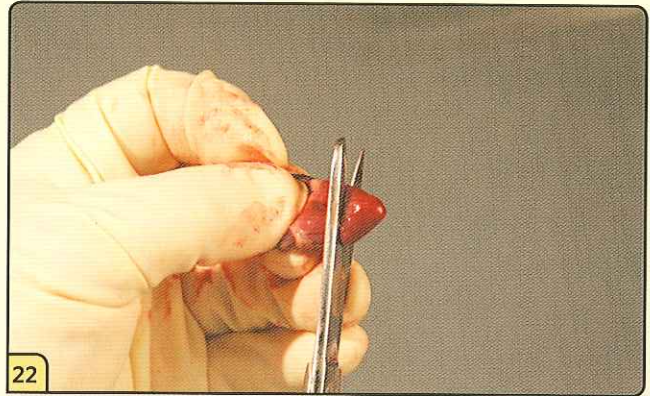
19 Cut the cranial attachments and remove the breastplate.



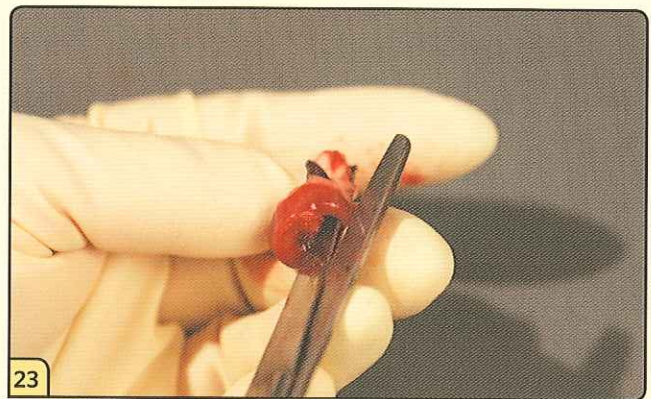
20 Make a visual inspection of the thoracoabdominal cavity *in situ*.



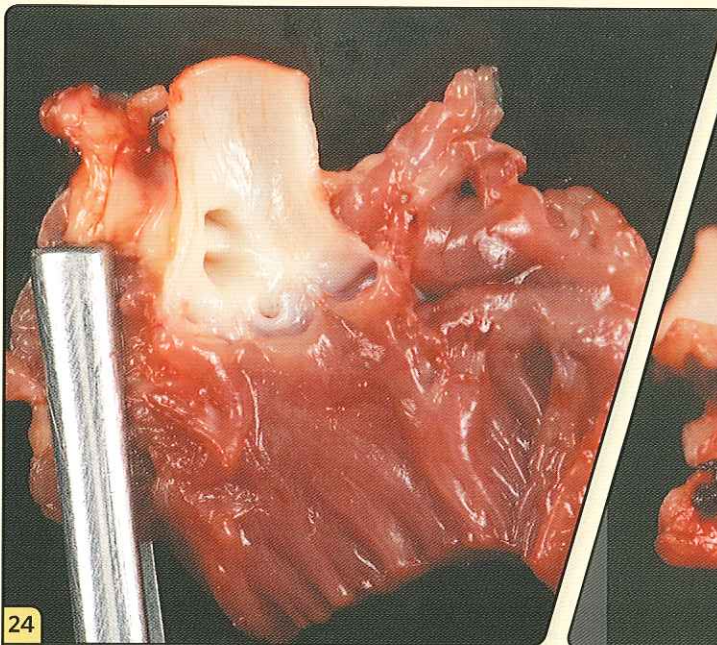
Elevate the heart and cut the great vessels.



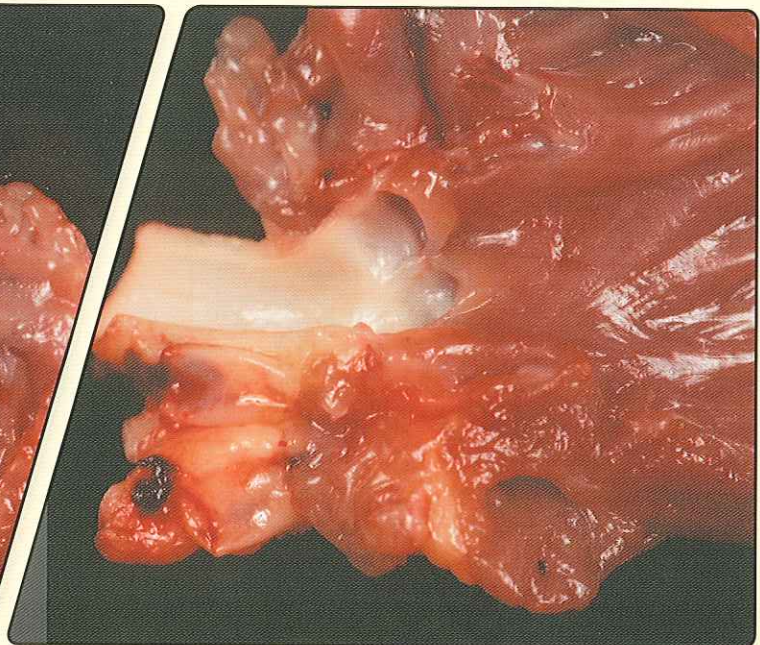
Remove the apex of the heart.

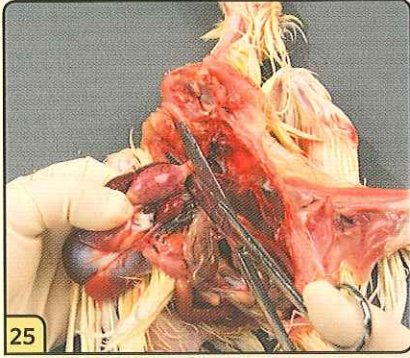


Cut the left and right lumen, opening the heart chambers for inspection.

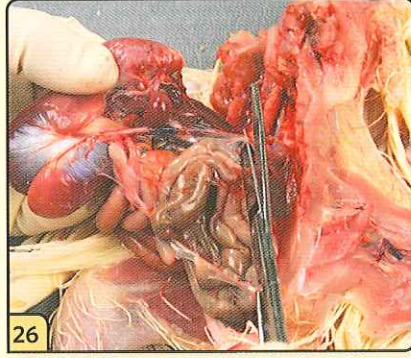


Examine the myocardial muscles, heart valves, and endocardium.

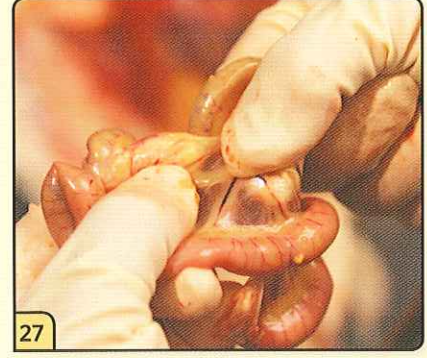




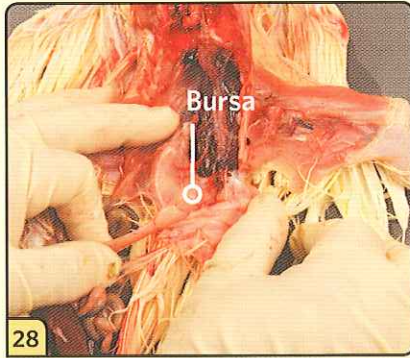
25 Sever the proventriculus from the esophagus.



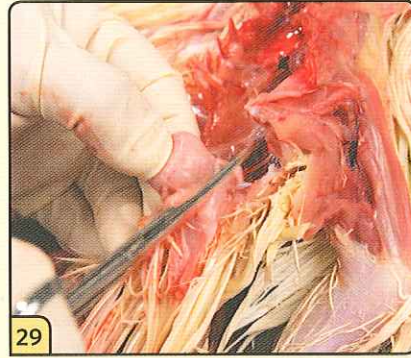
26 Cut the attachments anchoring the proventriculus, ventriculus, liver, and intestine.



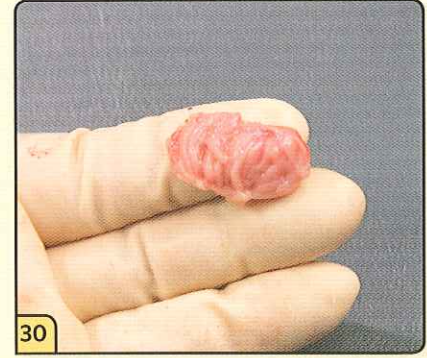
27 Gently pull and linearize the intestine, being careful not to tear and leak its contents.



28 Locate the bursa on the dorsal wall of the cloaca. Evaluate its size, assessing the immunocompetency of the bird with respect to its age.



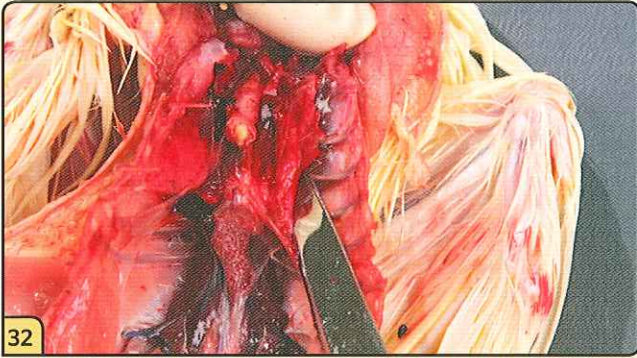
29 Separate the bursa from the cloaca.



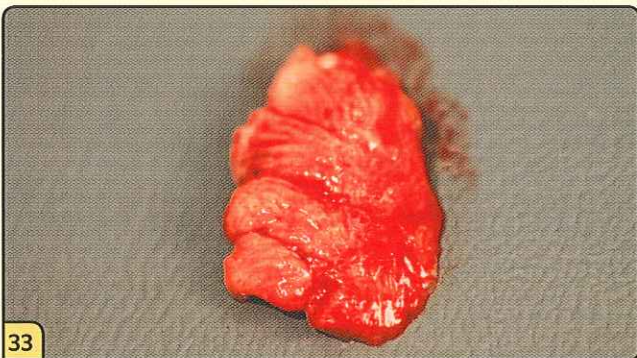
30 Open the bursa and examine its lumen for lesions.



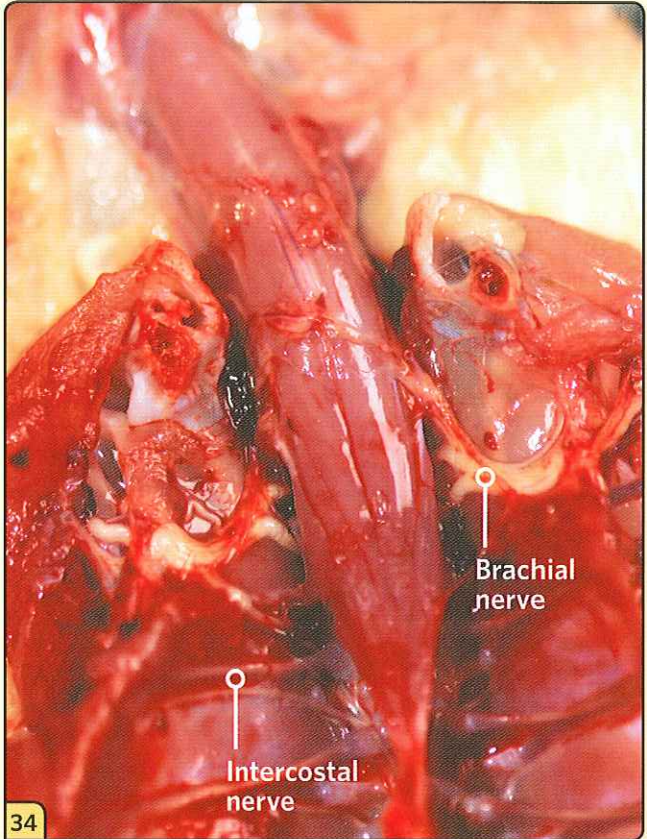
31 Sever the posterior end of the intestine from the cloaca. Set the GI tract aside for a more detailed examination after the remaining aseptic tissues have been processed.



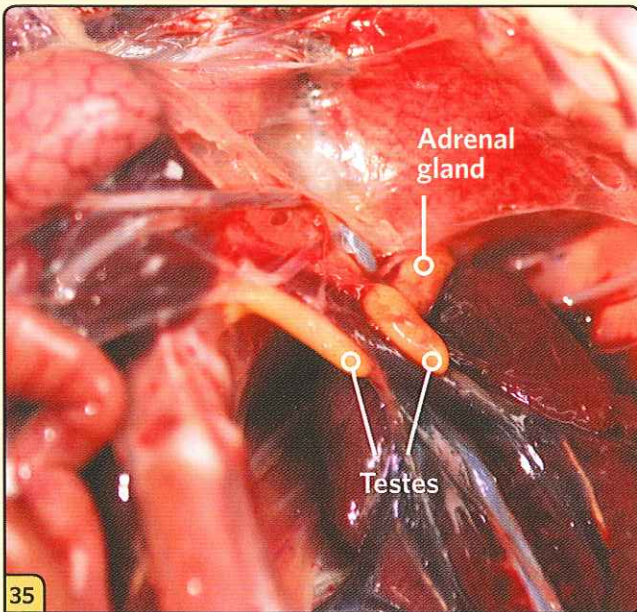
32 Use the edge of the scissors to bluntly dissect the lungs from the rib cage.



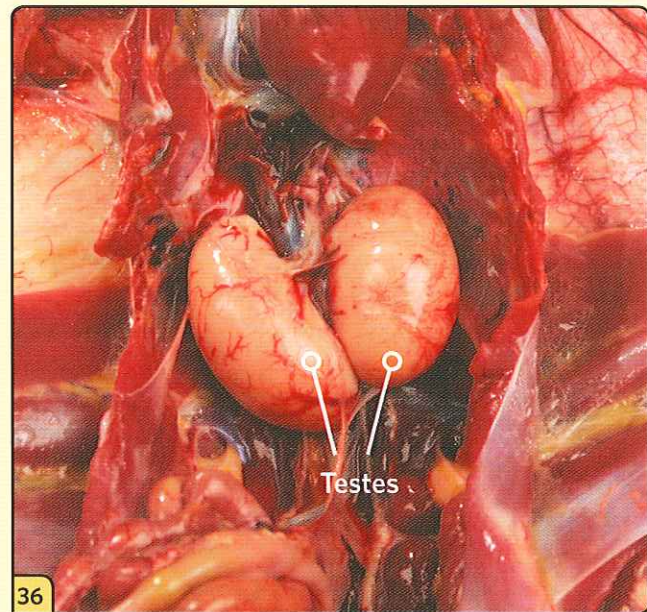
33 Visually inspect and palpate the lungs for lesions.



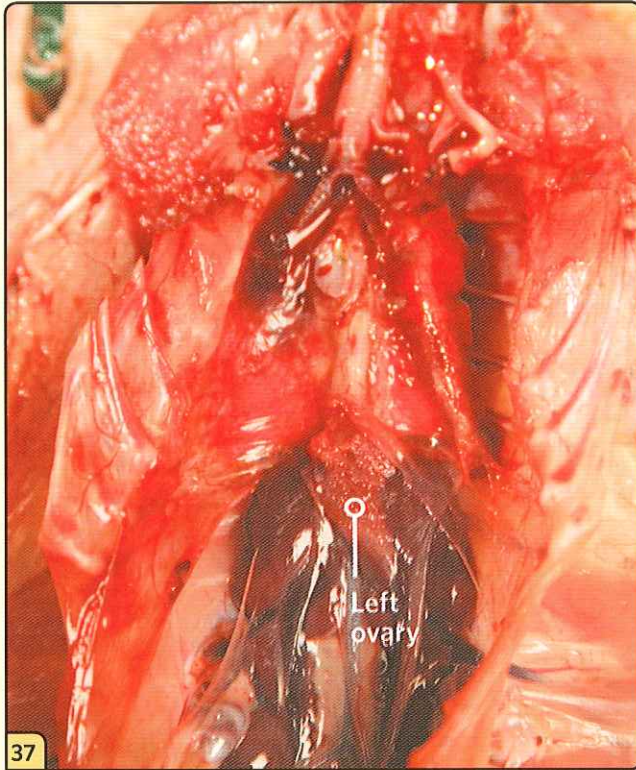
34 At the thoracic inlet, examine the brachial and intercostal nerves.



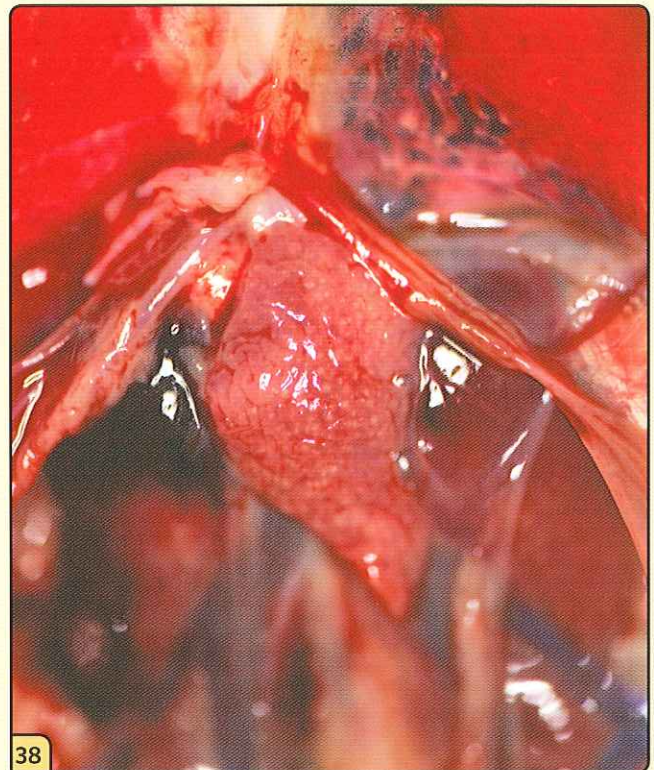
35 In male birds, examine the testes, located on the cranial aspect of the kidneys. The testes depicted here are from a sexually immature male. The adrenal glands are located at the cranial poles of the kidneys.



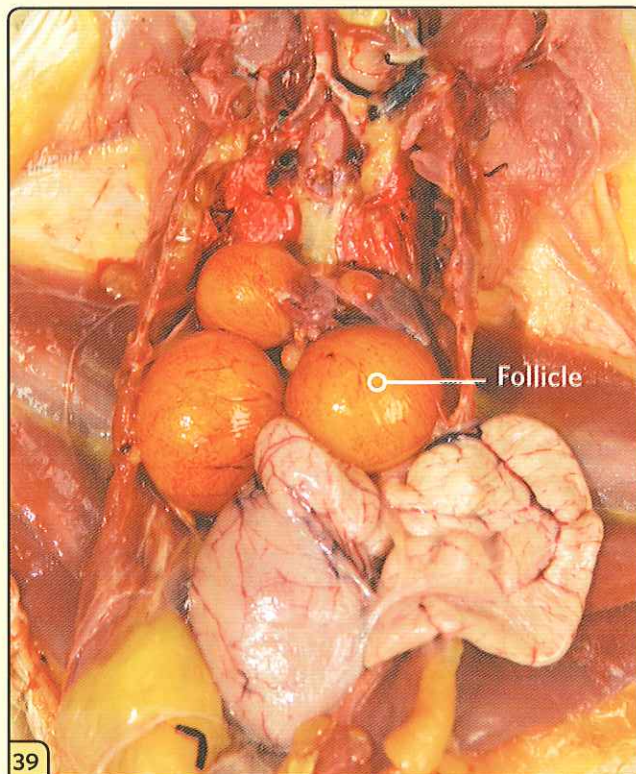
36 The testes depicted here are from a sexually mature male.



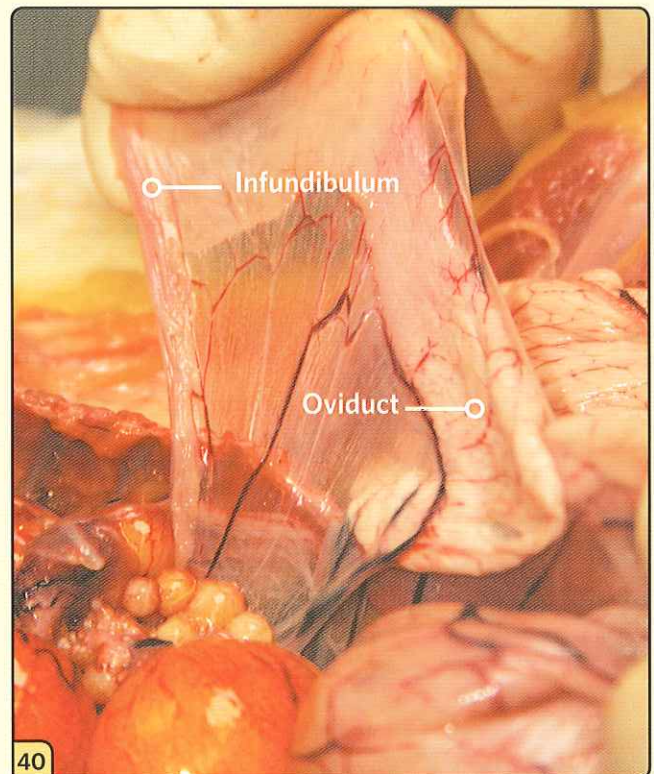
37 In female birds, examine the ovary, located at the cranial aspect of the left kidney.



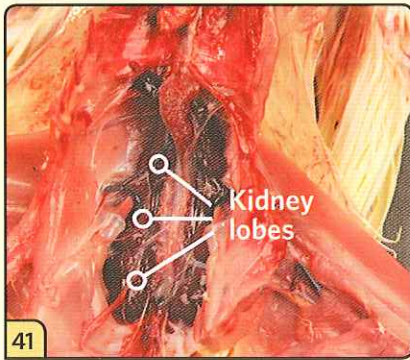
38 In sexually immature females, the ovary is a small structure with a fine nodular appearance.



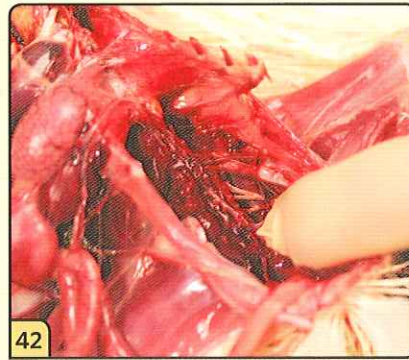
39 In an active ovary, follicles in various stages of development will be visible.



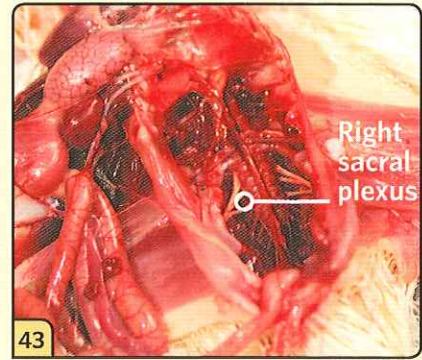
40 Examine the infundibulum and serosal surface of the oviduct.



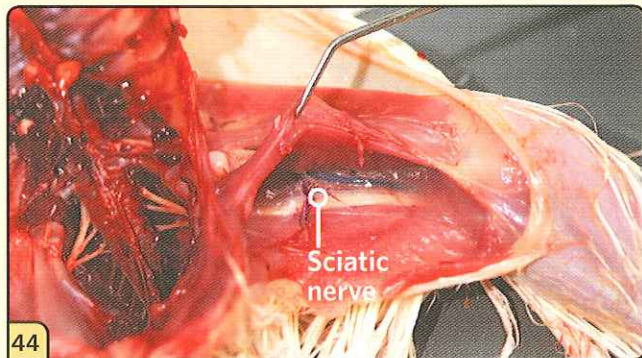
41 Examine the 3 lobes of the bilateral kidneys. They are located within the ventral recesses of the synsacrum (vertebrae) and contact the lungs cranially.



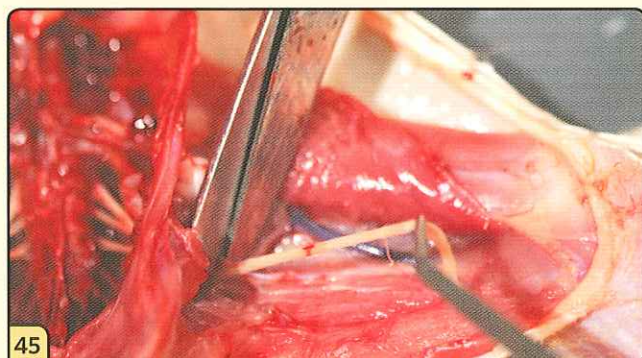
42 Use your fingers to gently dissect and remove the renal tissue to expose the sacral plexus for examination.



43 Compare the symmetry of the right and left sacral plexus.



44 Follow the plexus through the abdominal wall, where it emerges as the sciatic nerve in the leg.



45 Remove a section of the right and left sciatic nerves.

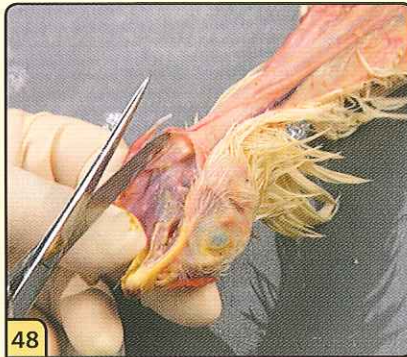


46 Lay sections of the nerves side by side for a comparison of the diameter and appearance. These nerve segments can also be submitted for laboratory testing.



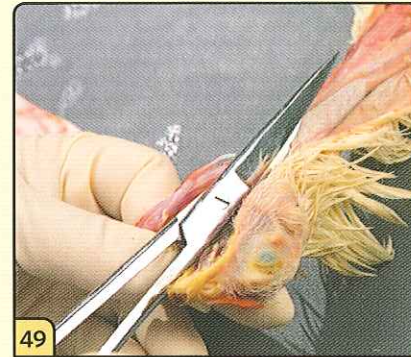
47

Cut through the commissure of the beak.



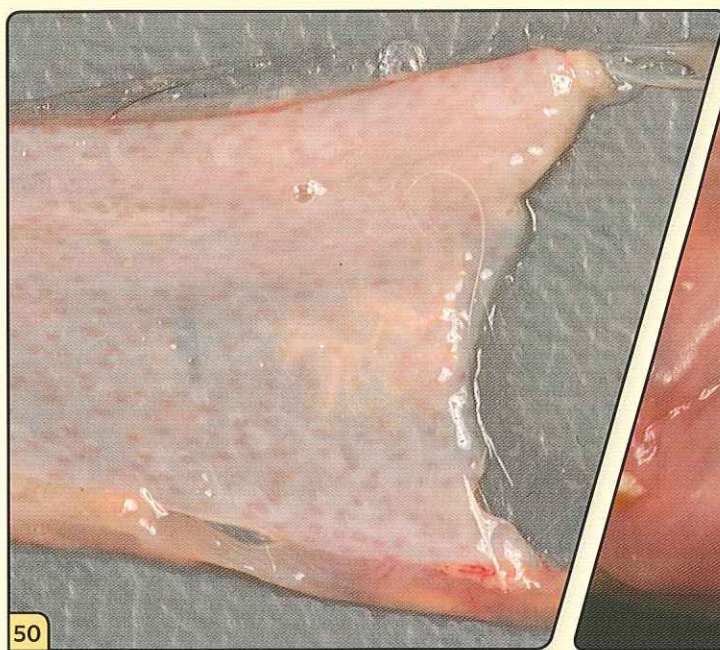
48

Inspect the oropharynx for lesions.

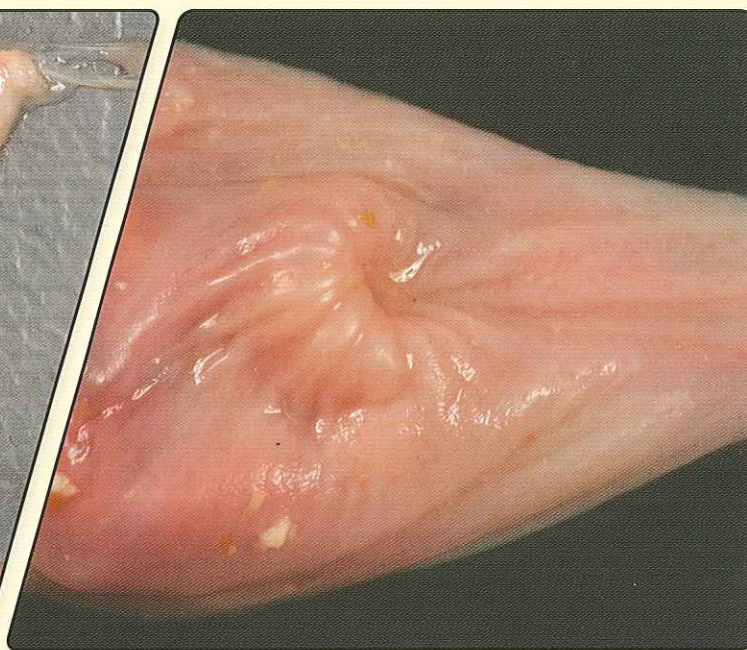


49

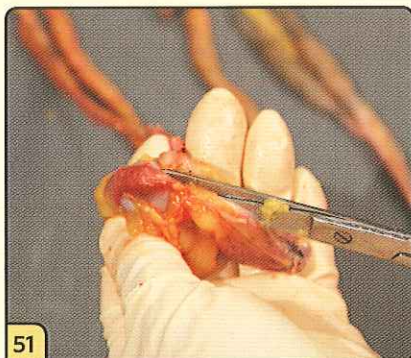
Continue cutting down the length of the esophagus and crop.



50

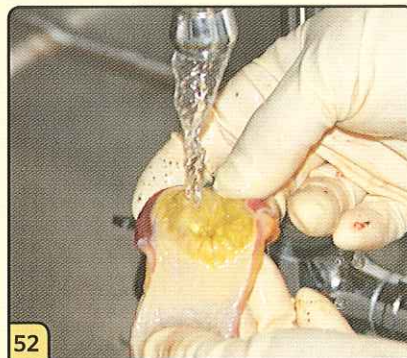


Inspect the mucosal surfaces of the esophagus (left) and crop (right) for lesions.



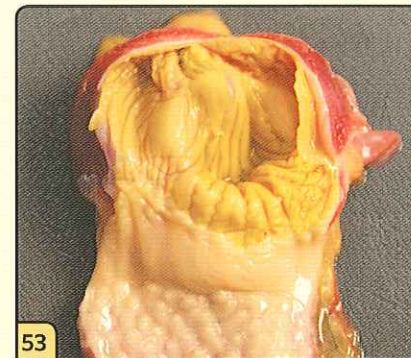
51

Using scissors, open the proventriculus and ventriculus.



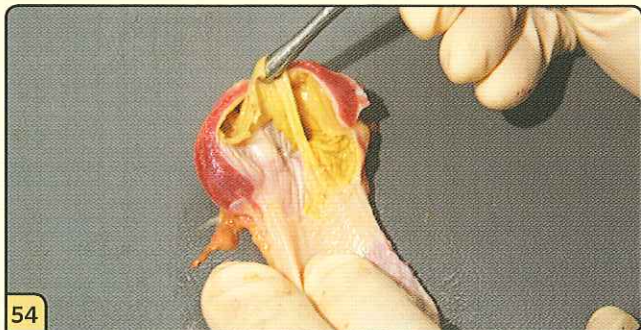
52

Gently wash away the ingesta with water.



53

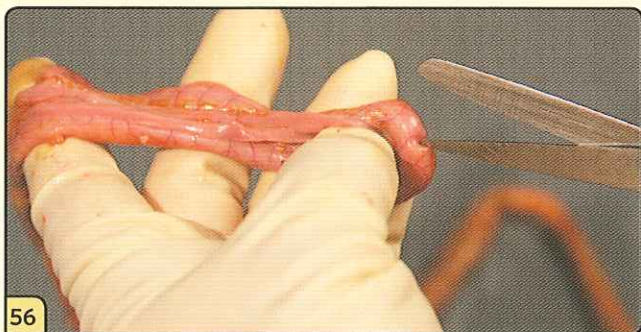
Assess the mucosa of the proventriculus and the muscle walls of the ventriculus for lesions and abnormalities.



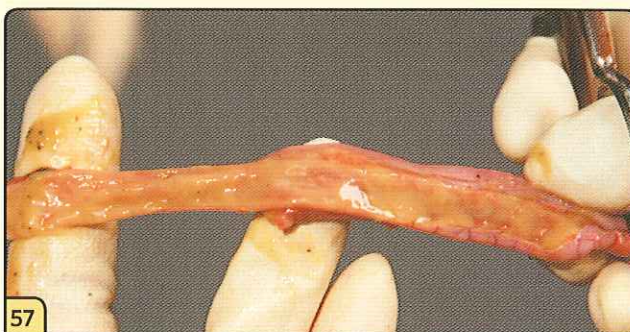
54 Peel and remove the koilin.



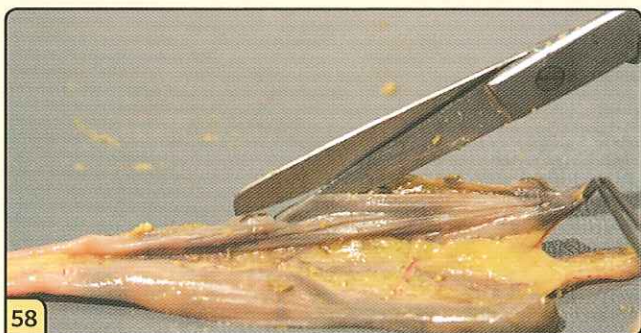
55 Assess the mucosal surface of the ventriculus for lesions.



56 Using scissors, open the duodenum.



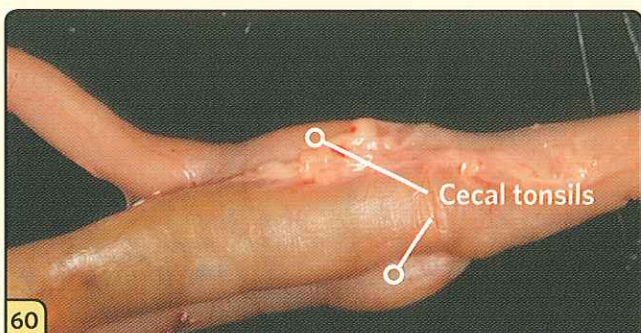
57 Inspect the mucosal surface for lesions.



58 Moving from oral to aboral, continue to open the intestine.



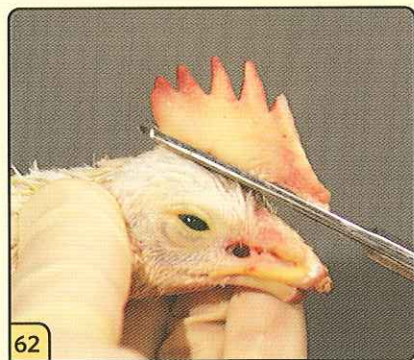
59 The consistency of the ingesta should gradually become more solid as you work down to the level of the rectum. The ingesta depicted here is from the ceca.



60 At the base of the ceca, pay close attention to the appearance of the cecal tonsils.



61 These lymphoid structures often become hemorrhagic or necrotic during an infection and are important to diagnostic testing. Depicted here is a cecal tonsil that has been incised to reveal hemorrhage, a common lesion in exotic Newcastle disease.



62

To expose the brain for sample collection, begin by removing the comb.



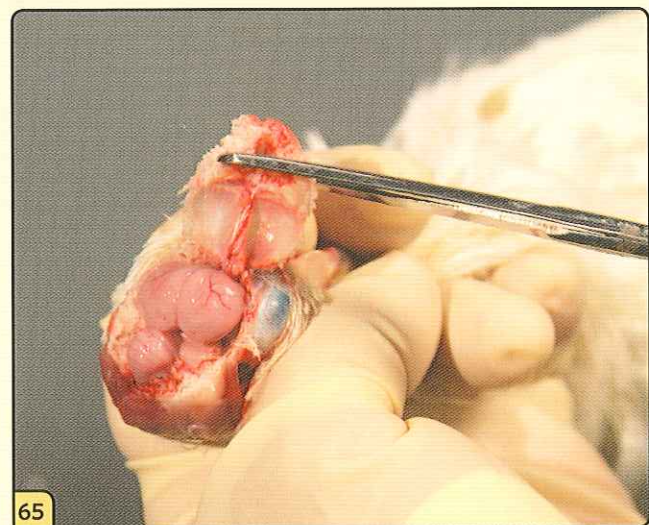
63

Peel the skin laterally to fully expose the top of the skull.



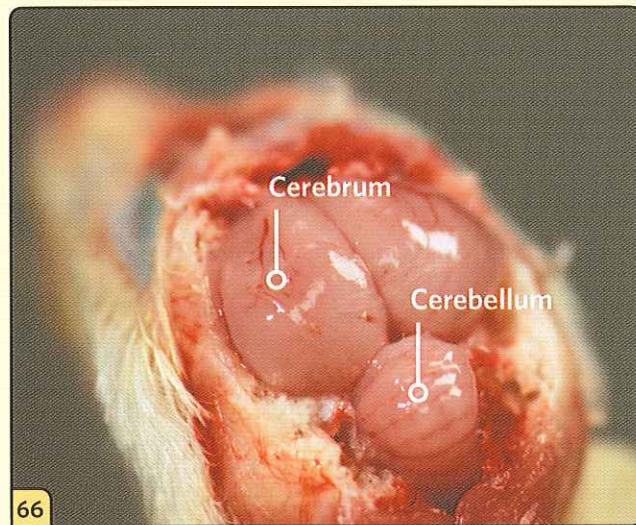
64

Starting at the foramen magnum, cut the top of the skull around the brain with shallow snips of the scissors.



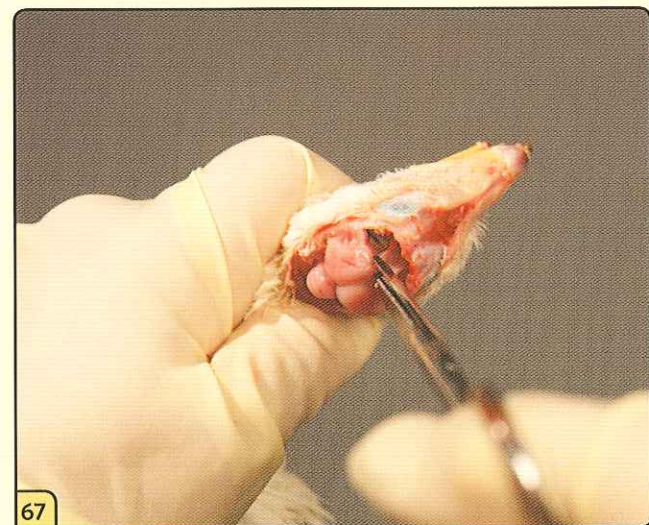
65

Lift and remove the skull top



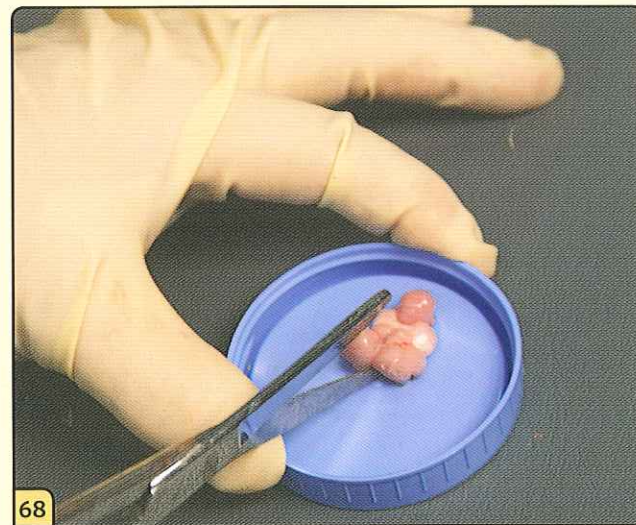
66

Examine the surfaces of the cerebrum and cerebellum *in situ*.



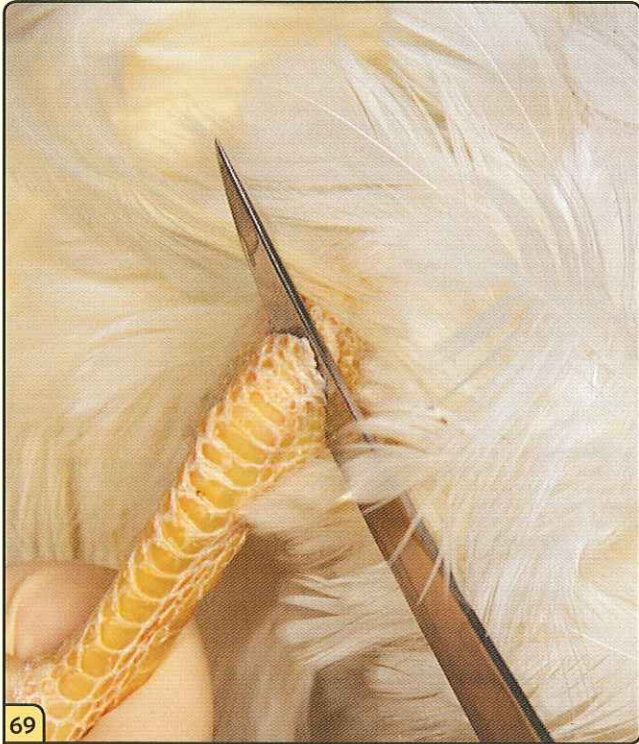
67

Gently separate the brain from the cranial nerves and spinal cord.



68

Place the brain on a sterile surface for inspection, then divide the brain down the middle for diagnostic sample submission.



Open several joints, such as the tarsal joint depicted here.



Examine the joint fluid and cartilage surfaces for abnormalities and lesions.