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How to collect a sample from your deer or elk for CWD analysis

David Zeman, DVM, Director, Animal Disease Research and Diagnostic Laboratory

You can find out quickly if your deer or elk has chronic wasting disease (CWD). During the hunting season, the SDSU Animal Disease Research and Diagnostic Lab (ADRDL) at SDSU will provide results of testing for CWD of deer and elk within 72 hours of receiving a fresh (unfrozen) retropharyngeal lymph node. The test is highly accurate.

Collect the sample in the field yourself or take the animal to a veterinarian for dissection. Specimens from the public must be forwarded to the ADRDL by a licensed veterinarian. Specimens can also be delivered directly to the lab on the SDSU campus and veterinarian information will be collected at that time. Billing for the test (\$20 plus an accession fee) will be to your veterinarian, who will pass the test fee on to you along with any other services pro-

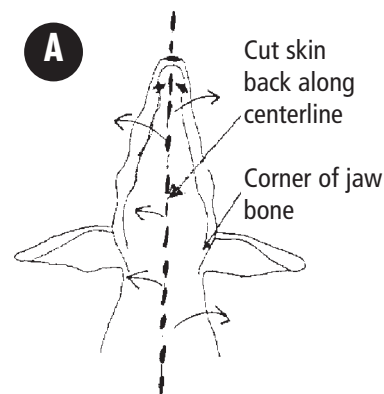
vided. All positive specimens will be tested a second time by an alternative method at no additional charge before a final interpretation is given.

The specimen to be collected is any one of the paired retropharyngeal lymph nodes. (see dissection instructions below).

The lymph node should be collected into a sealed plastic bag, bagged again into a second sealed plastic bag, and then kept cold (refrigeration temperature or in a cooler with ice packs) until arrival at the laboratory. Do not place the lymph node in the freezer or directly on ice packs—the specimen should never be frozen. Write name of hunter on the outer bag with a waterproof permanent marker.

Retropharyngeal Lymph Node Dissection Instructions

1. Place the deer so the underside of the head and throat region are facing **up**. Wearing disposable gloves is recommended.
2. On the bottom of the neck, just under the skin, feel for the windpipe (trachea). It is firm, about the size of a large garden hose, and runs along the entire bottom of the neck.
3. Run your hand along the windpipe toward the head until you feel an enlargement at the junction of the head to the body. This is the voice box (larynx).
4. Cut through the skin on the bottom of the neck **A**, starting over the windpipe, moving a little way down the neck and back, moving toward the head, passing

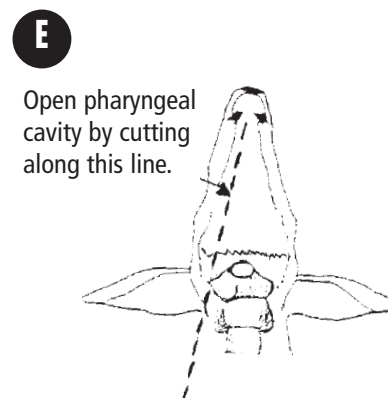
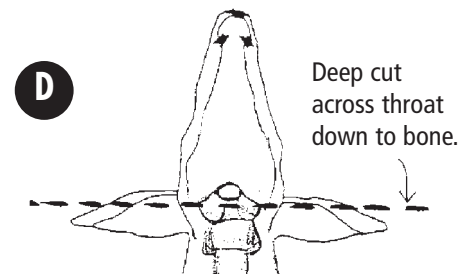
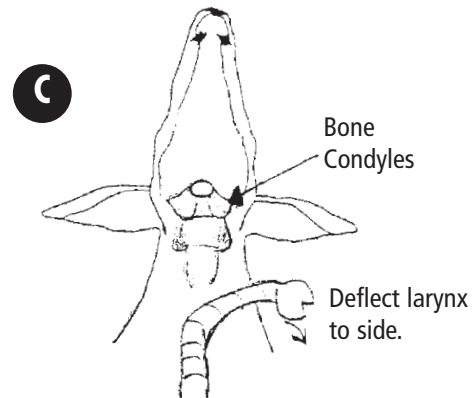
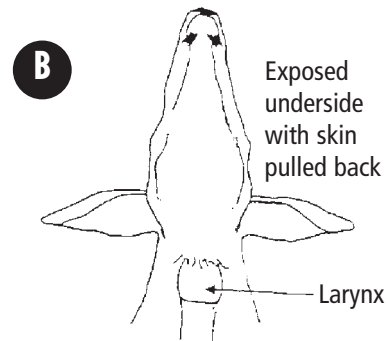


over the voice box, and all the way to where the two jaw bones merge at the chin. Dissect this skin well down along the sides, exposing the voice box **B**.

5. Grab the voice box and attached windpipe and cut it free so it hangs off to the side, out of the way **C**.
6. Next cut deeply across the throat from the base of one ear to the base of the next. Your cross cut will be a line between the curve of the jawbones and the front part of the base of the ears **D**.
7. Keep cutting deep along this line until you reach the back bone, flexing the head back as you cut. The bone at the bottom of your dissection will be roughly at the point where the head attaches to the neck (occipital condyles). As you flex the head back, you might see a gap exposing the bottom of the spinal cord. You do not need to remove the head or cut the spinal cord. This cross cut has now exposed a passage that opens into the back of the throat (pharyngeal area) and the mouth cavity.

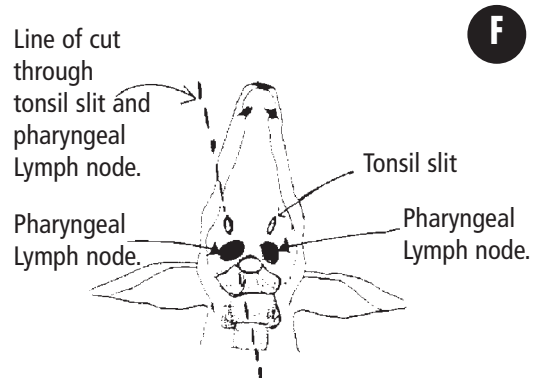
8. Next, place your knife into the exposed throat and oral cavity region and cut up alongside either side of the tongue **E**. Cut the loose flap of skin away you have just created to expose the tissues below.
9. You now should be looking down at the head and able to see the pharyngeal portion of the mouth cavity. The oral/pharyngeal cavity is the internal area of the back of the throat and is lined by shiny, smooth white tissue.

10. You should be able to view a pair of deep slits on the shiny white surface of the oropharyngeal cavity you are viewing. These are the tonsil crypts—**important landmarks f**.
11. Cut a deep slit a few inches long through the tonsil crypts. You will first pass through a firm lump attached to the crypts—these are the tonsils. Behind the tonsil (toward the condyles) you will find a larger firm tan/grey lump—the retropharyngeal lymph node. There will be one node near each tonsil. The nodes are about the size of a large grape or prune pit. Another way to describe this site is that they will be in the tissue between the tonsil crypts and the condyles.



12. You only need one node. Do not crush the node while dissecting it free. See next step before cutting your nodes out!

13. When searching for the retropharyngeal lymph node, stay near the body midline and do not stray too far to the side. Do not probe out along the jaw bone while searching for the pharyngeal lymph nodes. There are other lymph nodes and salivary glands along the curve of the jaw bone that can be confused with the pharyngeal lymph nodes. The pharyngeal lymph nodes will be tan and gray and closer to the midline—near and behind the tonsils. Salivary glands (we don't want these) have a solid tan look and show a patchwork pattern on their surface when viewed closely.



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