

Chronic Wasting Disease Sample Collection: Elk

Brainstem (obex) & Lower Jaw



Figure 1

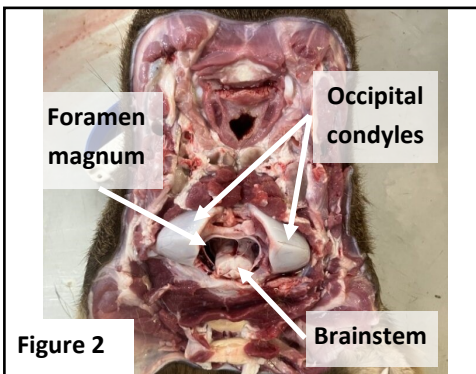


Figure 2

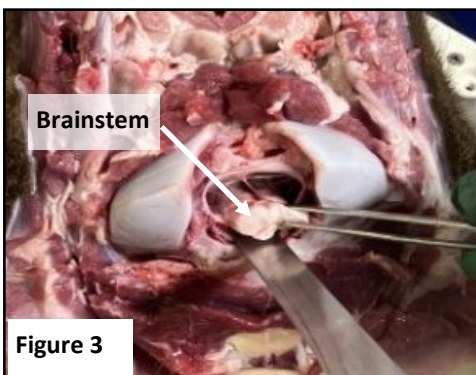


Figure 3



Figure 4

Hunters have the option of submitting the entire head and upper neck of harvested animals, or, hunters may extract and submit the testable tissues themselves. For elk, the testable tissues include the obex (section of the brainstem) and lower jaw.

Sampling Procedure for Brainstem/Obex

1. Position the head upside down. Begin cutting through the throat, starting just behind the lower jaw. Cut all the way through the neck, following the angle of the jaw, through the joint of the first vertebrae and the skull (Figure 1). When cutting through the first joint, make sure to cut through the spinal cord.
2. Locate the occipital condyles and foramen magnum (open space; Figure 2). Locate the brainstem inside the foramen magnum.
3. Gently grasp the brainstem with tweezers or needle-nose pliers and insert a sharp, narrow filleting knife or scalpel into the foramen magnum alongside the brainstem (Figure 3). Insert the blade at least 2 inches into the foramen magnum; cut all the way around the outside of the brainstem in a circular motion to separate the brainstem from the rest of the skull and brain, keeping the blade directed along the inside of the foramen magnum. Gently remove (Figure 4).
4. Examine to ensure the proper obex sample (V or Y shape; Figure 5) is separated and preserved.

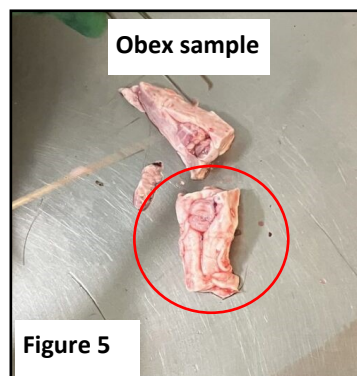


Figure 5

Equipment needed:

Gloves, sharp knife (filleting) or scalpel, forceps or pliers, zip lock bag or plastic jar, permanent marker, bleach.

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Brainstem (obex) & Lower Jaw



Sampling Procedure for Lower Jaw

1. Insert a sharp knife into the mouth and begin cutting through the cheek and up towards the ear (Figure 6), separating any muscle and connective tissue that hold the lower and upper jaws together. Repeat on both sides of the head.
2. Once the lower jaw has been loosened, slowly force the mouth open and push the lower jaw down and away from the upper jaw until it separates from the skull. A fair amount of force and additional cutting of connective tissue, tendons, and muscle may be required.
3. Remove any muscle and skin that is still attached to prepare the sample for submission (Figure 7).

Packaging and Submitting your Samples

1. Label a zip lock bag or plastic jar with the sex and species of your harvested animal, as well as the type of tissue sample being submitted (Figure 8). If using a zip lock bag, place the bag into a hard-shelled container (ex. coffee cup) to ensure the sample maintains its structure.
2. Bring the tissue sample and lower jaw to a sample drop-off depot **within seven days of harvesting your elk** (depot locations can be found on the CWD website below).
3. Place both the tissue sample and the lower jaw into the poly bag provided by the depot (Figure 9) secured with the Sample Tag. Fill in all required information on the Wildlife Sample Receipt Form. Leave the tissue sample, jaw, and sample receipt with depot staff. Keep your copy of the sample receipt.