

# Learning

Hosting a hunting-based outdoor skills event in your community



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# From Field to Freezer

Field dressing and  
butchering techniques

Participants have an opportunity to field dress a deer, remove the hide, prepare the hide for processing and butcher and wrap the venison into meal-sized packages.



# Station 18

From Field to Freezer

Learning to Hunt

## Objectives

### Participants shall:

demonstrate how to field dress a deer.

demonstrate how to remove and properly care for the hide of a deer.

demonstrate how to butcher a deer into burger, tenderloin, steaks and roasts.

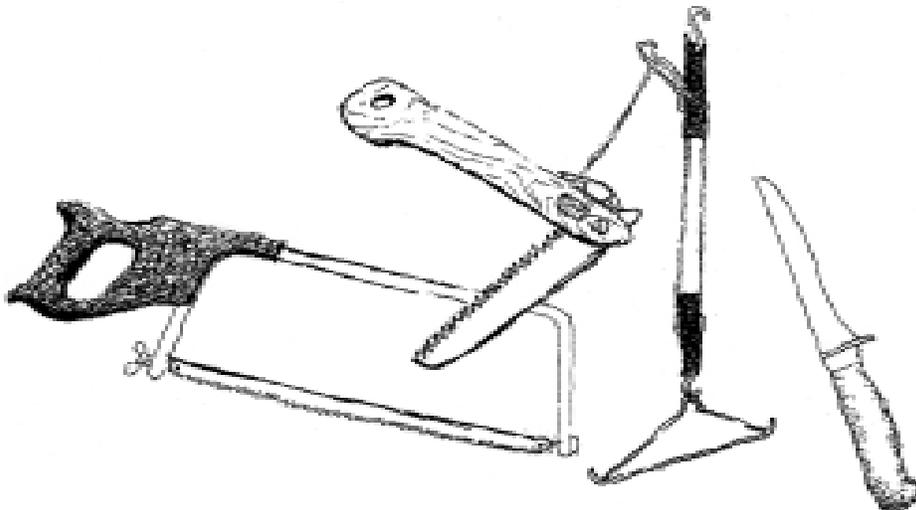
## Equipment

1 deer carcass per three participants

### For each deer:

Hunting knife  
Sierra field bone saw  
Gallon-size resealable plastic bag  
Clean towel or roll of paper towels  
Jug of water

Large table  
Gambrel and hoist  
Tree limb or barn beam  
Boning knife  
Stiff brush or blow torch and lighter  
3 lbs of coarse salt  
2 clean, 5-gallon plastic buckets  
Large roll of freezer wrap  
Masking tape and marking pen  
Several copies of the **Field Dressing Deer** pocket guide from The Complete Hunter series or the book, **Hunting Whitetail Deer** from the same series  
Several copies of **Processing Your Deer** by Scott Craven and Dennis Buege, a publication of UW-Madison Extension  
Several **How to Age a White Tailed Deer** Poster from Deer & Deer Hunting  
ine. 800-258-0929  
anddeerhunting.com



## Station Setup

Check with local wardens for permission to obtain several recently road-killed deer on which participants may practice. Place deer carcasses in a wooded area. Place butchering utensils on picnic tables or other available tables where participants can work on the carcasses. Be sure a sturdy branch or barn beam is available for hanging the deer prior to butchering it. Select a shady, cool spot for hanging the deer with constant 40-degree temperature.



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### Background Information

Much of the information regarding field dressing, skinning and butchering is included in the activities. However, here is some additional information that you may wish to discuss with your participants.

#### **Caring for Venison in Warm Weather**

During the early bowhunting season or during special hunts held in milder months, it is very important to take care of your harvest as soon as possible to prevent meat spoilage.

When the air temperature is over 40 degrees, harmful bacteria capable of causing food-borne illnesses grow quickly. Follow these tips to make sure your venison remains safe to eat:

Field dress the carcass immediately after harvest.

Wash the body cavity with cold, clean water. Carry a clean towel to wipe your hands. This will help

prevent cross contamination.

If you want to cook the heart and liver, then place these organs in a food-grade plastic bag. The same is true for the tenderloins. Do not use dark-colored garbage bags as they may contain toxic resins and are not intended for food use.

Spread the rib cage open to cool the carcass more quickly. If the weather is quite warm, consider packing the carcass with clean ice.

Register your deer according to the law and then refrigerate the carcass, butcher it or deliver it to a meat processing plant soon after registering the deer. Wisconsin law now allows quartering of deer prior to registration under certain conditions. See Wisconsin hunting regulations for details.

Do not hang the deer to age it. In warm weather, venison will spoil rapidly if it hangs without refrigeration.

Do not leave venison in a car trunk where warmer temperatures promote bacterial growth.

If you home butcher your deer, then use a cooler filled with ice or dry ice to store the cut meat.



**Chronic Wasting Disease:  
Implications for Home  
Butchering.**

Chronic Wasting Disease (CWD) was recognized in Wisconsin's deer herd in February 2002, the first time the disease had been discovered east of the Mississippi River.

CWD is a fatal neurological disease found in elk and deer. CWD is caused by an abnormal protein, called a prion (PREE-on), which is smaller than a virus. Prions are carried in the nervous system of deer and elk and are thought to be transferred from one animal to the next through contact with saliva, urine or feces. The exact transfer mechanism is not understood. CWD is not air borne. CWD is transferred via deer-to-deer contact.

Wildlife biologists say nothing can be done to save deer infected with CWD. No vaccine or treatment exists.

Epidemiologists with the Federal Centers for Disease Control and the Wisconsin Department of Health and Family Services have studied CWD and found no link between this disease of deer and elk and any neurological disease in people. You cannot get the disease by being near infected animals, walking through areas known to have infected deer or elk, drinking

water in infected areas or any other normal daily activity. The prions are concentrated in the brain, spinal chord and lymph nodes of sick animals. Prions have never been found in lean, skeletal muscle...the meat that we eat. Nevertheless, scientists are reluctant to guarantee absolute safety from CWD.

Even though no evidence exists to prove that CWD can be transferred to people or to any animal other than a deer or elk, it is wise to take some precautions when processing deer.

Follow these steps:

- Do not consume any deer that may look weak, sick or is staggering.
- Always wear latex or rubber gloves when field dressing or butchering your deer. The illustrations in this activity were drawn previous to the knowledge that CWD existed in Wisconsin. So even though the illustrations show the processor using bare hands, wear gloves instead.
- Don't use the saw any more.
- When you are finished processing your deer, clean and anitize the knives and other tools you've used with a solution of 50% bleach and 50% water.

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- Consider using a disposable cutting surface such as clean plywood or panelling. Keep disposable paper towels or old, clean rags handy during butchering.
- Trim liberally around any of the areas hit by the bullet or slug, particularly those near the skull or spine.
- Hang the deer, head down. This will prevent fluids in the head from draining down into the carcass.
- Don't remove the legs with a saw. Skin to below each shank and then simply cut the hide away from the leg.



# Field dressing

## Procedure

Take your participants into the woods where you have placed the deer carcasses. Divide them into teams of three. Tell them that you worked with your local warden to obtain permission to get some deer killed by vehicles. Explain to your participants that once they have shot a deer they must first tag it and then field dress it. Usually this happens prior to registering the deer. Field dressing means to remove the intestines and other internal organs. This helps cool the body cavity and prolongs the freshness of the meat and retards the natural decaying process. It also helps remove the source of digestive acids and gases that could taint the meat and helps drain blood from the body cavity. Field dressing reduces the weight by about 20 percent. This makes it easier to drag the deer out of the woods and to place it into a vehicle.

Hand each team a hunting knife and a sierra saw. Remind participants that they will be using a variety of knives and saws. All blades are very sharp. Cold fingers are less sensitive and so are more readily prone to accidental cutting. Tell them to be very careful using these tools.

Next, remind your participants that they should now unload their guns and properly tag the deer.

Allow the teams to drag their deer to a spot in the woods where they have plenty of room to work. If possible, have them find a place with a slight slope. This makes drainage and removal of the internal organs easier.

## Activity A



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Have your participants prop their deer on its back. Participants should keep on their blaze orange jackets for safety purposes. Tell participants that if they are in the field and absolutely must remove their bulky outer blaze orange clothing, then they should hang this clothing up in a nearby tree so that other hunters in the area will notice it.



**!!!!!!!!!!!!!!**

**With the arrival of Chronic Wasting Disease in 2001, participants should now wear protective rubber gloves while field dressing their deer.**

Explain that when field dressing a deer, it isn't necessary to slit the throat to bleed out the deer because the process of field dressing the animal will help it bleed out better and faster.

Ask participants to take their hunting knife and begin to make a shallow slit through the hair, hide, and thin muscle layer of the belly just below the endpoint of

the breastbone where the stomach tissue begins. In order to cut only the hide, participants will need to lift the hide away from the belly muscle or else they will cut too deeply into the gut area. Extend this shallow cut in the hide from the base of the breastbone toward the anal opening. This cut is only into the hide not into the body cavity yet. They should notice that the hide is very white.

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Continue making the slit through the skin all the way from the anal area up to the neck. This first slit is through the skin only!



If the deer is a buck, tell them to remove the genitals by cutting around both sides of the sex organs. If the deer is a doe, they should remove the utter or "bag." Participants will discard these items along with the gut pile later.

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Now participants should go back to the start of the cut they made in the hide and very carefully make a small incision through the thicker muscles of the belly and into the body cavity. As they make this cut tell participants to be VERY careful not to poke too deeply or they run the risk of puncturing the stomach and spilling digestive acids and a host of bacteria into the body cavity. This can spoil the flavor of the meat, not to mention it makes a very smelly mess. If a puncture to the stomach happens or if the deer was shot in the stomach or intestinal area, participants should

use snow or water from a jug to rinse the body cavity clean as soon as possible.

Once they have made this small incision, they should insert the first and second fingers of their other hand into the body cavity and use these two fingers as a guide. They should carefully keep the cutting edge of their knife blade up and resting between the two fingers. In this manner, they should complete the cut from the breastbone to the anus.





Explain to participants that hunters often used to cut or saw through the center of the breastbone from its base to the jaw. However, with the presence of Chronic Wasting Disease in the state, health officials recommend never cutting or sawing into bone.



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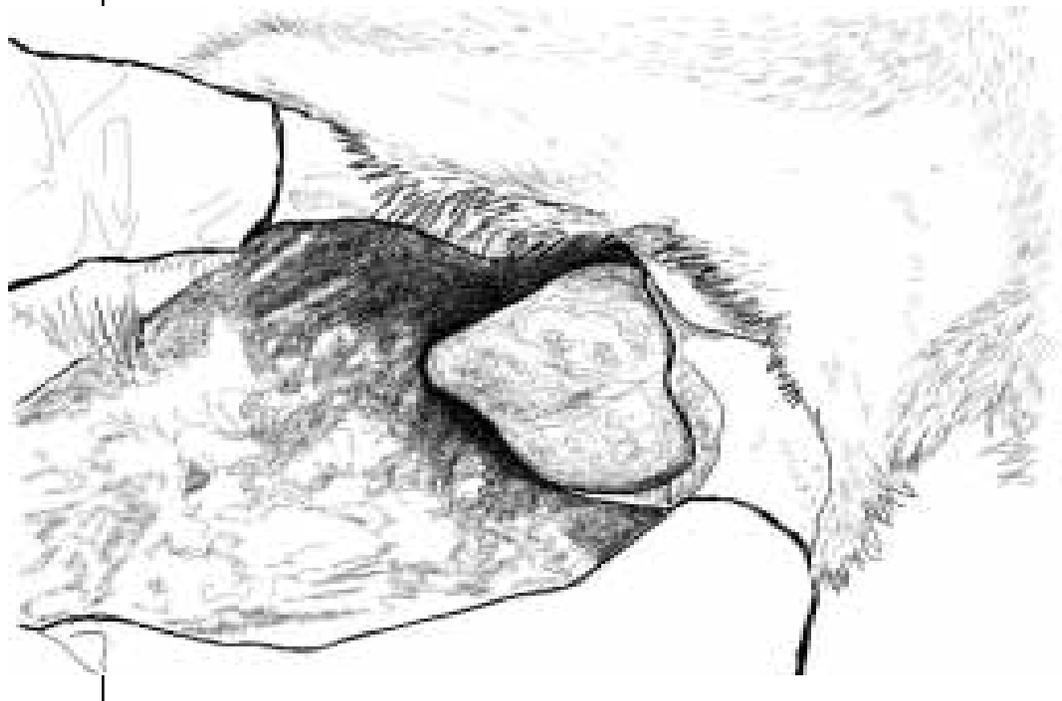
## Learning to Hunt

Now, cut the diaphragm away from the ribs. The diaphragm is a muscular membrane that separates the belly from the chest. Be careful to stay as close to the rib cage as possible to avoid puncturing the stomach. Repeat this process on the other side.

With the diaphragm free, participants should reach up into the chest cavity and cut the heart away. Since officials recommend not to cut or saw through the breast bone, removing the heart and other organs of the chest will be “blind work” so watch out for fingers. Participants may choose to save the heart for later cooking or they may choose to discard it. If they want to save it, place it in a zippered plastic bag.



Pulling out the heart and upper intestines and windpipe is “blind” work, so be very careful when handling sharp knives.





Continuing this “work by feel,” participants should reach up into the chest cavity and cut through the lungs, esophagus and windpipe at the throat end. These organs should be discarded.

Since health officials recommend against cutting through any bones, removal of the windpipe, lungs and esophagus should now be done “blind” by feeling your way to the upper end of the chest cavity where these organs are attached.

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Health officials recommend not sawing through the pelvic bone since Chronic Wasting Disease is now in the state.

Cutting through the pelvic bone makes the carcass floppier and harder to handle and to drag. It also invites more debris into the cavity and the exposed rounds tend to dry out.



Next, ask your participants to focus on freeing up the attached anus. Hunters used to do this in one of two ways. With Chronic Wasting Disease in the state, however, it is no longer recommended to use the saw to cut through the centerline of the pelvic bone.

The recommended option is that hunters should cut around the exterior rectal opening so the anus can be freed and pulled out with the rest of the stomach and intestines. To avoid dropping any fecal pellets onto the meat, pull the freed anus out of the body first and tie it off with a piece of string before pulling it back through the pelvic area.



Have participants roll their deer onto one side and cut all the tissues that hold the intestines in place all the way down the backbone of the deer. Roll the deer to the other side and free the intestines from this side as well.

Grab onto the stomach and roll it out of the body cavity. Note the liver will appear as a smooth, dark reddish brown organ with several lobes. Since deer don't have a gall bladder you can handle the liver without fear of rupture or contamination. If you enjoy eating cooked liver, cut this organ free from its attachments and place it into the plastic bag. If not, you can leave it in with the other internal organs. If liver flukes

(parasites that look like large flat worms) are obvious in the liver, the choice has been made for you—leave it!

Pull the intestinal organs free of the body cavity and away from your work area. Remind participants to be sensitive to the concerns of non-hunters. Emphasize that they should NEVER leave gut piles along trails, roadsides, parking lots or other public places where they would be considered offensive. In most circumstances, gut piles last about a week before they are entirely devoured by nature's scavengers.

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Next, carefully remove the urinary bladder. It remains deep in the pelvic area after the other organs are pulled free of the body cavity. It may or may not be filled with urine. Pinch it off with one hand and cut it free with the other. Discard it carefully to avoid contaminating the meat with urine.

The kidneys and fat that adhere to the body wall in the back of the cavity can be removed or left in until the deer is butchered. Don't damage the two strips of muscle along either side of the spine in the body cavity. These are the tenderloins and are the choicest part of the deer.

Some hunters cut these tenderloins out immediately and place them into their own separate plastic bag. To finish field dressing, wipe the body cavity with snow or with a clean cloth or paper towels to get rid of excess blood or loose tissue.

Before dragging the field-dressed deer carcass out of the woods remind participants they should make sure their deer carcass tag is securely fastened either to the antler of a buck or through a slit in the ear of a doe.

Have them try their hands at loading the roadkill deer into the back of a car or truck.

# Skinning and preparing the hide

## Procedure

Ask participants to drag the deer out to the tables and hoists where they will finish processing the deer. Explain that participants can drag the deer by tying the front legs up around the head or by securing a rope to the antlers. A drag stick or wide strap makes dragging much more comfortable. If it's a small deer, don't carry it. Another hunter may mistake it for a live deer.

Once participants have dragged their deer to the butchering station explain to them that it is much easier to skin a warm carcass but much easier to butcher a cold one.

Now have each team cut a slit between the large, long tendon and bone of the hind legs.

Warn participants to be careful not to touch the musk gland for risk of tainting the meat with the musky smell. This gland is the tuft of long dark hair on the outside



Slice  
here

If you used to saw here, don't anymore. Chronic Wasting Disease has changed the manner in which deer are processed these days.

of each hind leg below the hock. You may want to demonstrate on one butchered deer that this gland produces a very pungent, disagreeable odor of musk.

Insert an end of the gambrel into each of the slits. The gambrel should now be between the two hind legs. Together, the team can lift the gambrel and deer up onto the hoist. The deer should now be hanging head down. Use a stick to spread the body cavity open. This will aid in air circulation and cooling.

## Activity B

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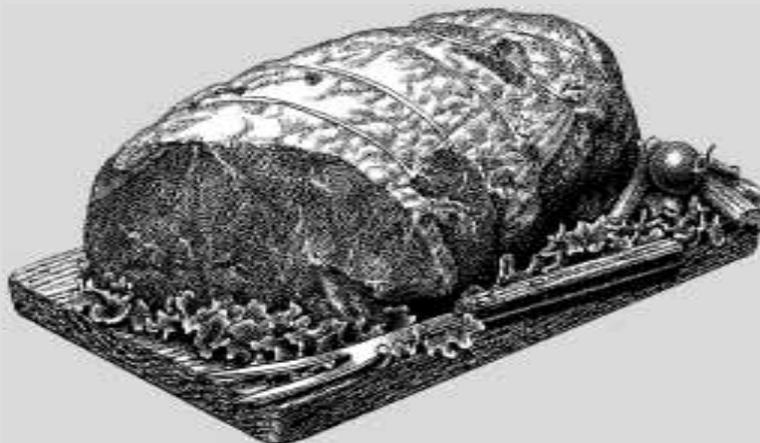
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## Aging Venison

Explain to participants that some hunters prefer the taste of “aged” venison. Aging meat refers to holding it at cool temperatures to encourage the action of natural enzymes that tenderize the meat. While aging improves the tenderness of venison, it may cause greater trimming losses due to dehydration of exposed surfaces. Since most deer harvested are yearling bucks, their meat is naturally tender, so aging isn’t usually required. In such cases, encourage participants to process their deer as soon as possible. They’ll probably never know the difference. However, if they have shot an old buck, they may want to leave the skin on the deer and store it in a refrigerator unit about 5 or 6 days at temperatures just above freezing. The hide prevents excess moisture loss during aging. Trying to field age the venison is difficult since temperatures fluctuate too much. If they go above 40 degrees F, the meat will dehydrate and spoil. When temperatures fall below 30 degrees F, the aging process stops. If meat is repeatedly frozen and thawed, it becomes poor in quality because of excessive moisture loss.



If they didn't do so in the field, ask participants to remove the tenderloins. They can easily remove the tenderloins by cutting along the sides of the spine and working them free with their fingers.

Skinning may take participants a half-hour or more. First cut through the skin down the inside of each of the four legs. Tell participants that they can avoid getting a lot of hair on the meat by taking their time to cut through the hide from the inside. Explain that if they cut through the hide from the outside, they will be cutting off a lot of hairs that tend to stick to the clean carcass meat.

Next, work the skin away from each of the hind legs. Then pull the tailbones out of the tail.

A sharp knife and strong fingers are the best tools for working the hide free. When making cuts between the hide and the meat, cut toward the hide side, not the meat side. Ask participants to avoid making a lot of holes in the hide. These detract from the hide's value as finished buckskin.

Have participants continue to peel the hide down the back and down through the chest and brisket area in a continuation of the cut they made in field dressing. This central cut (from the inside out) should join the cuts made down the inner surface of the front legs.

The hide can be pulled down to the front shoulders by strong downward pressure. Two people can do it easier than one. If the thin sheetlike muscles on the body pull off with the hide, have participants stop and then try again after cutting the flesh back with their skinning knife. One advantage of "head down" skinning is that these muscles are less likely to pull off.

Once participants reach the front shoulders have them continue pulling down and cutting where necessary to work the hide down the front legs and the neck. Simply cut the hide away from each leg.

If hairs get on the meat, have participants use a stiff brush—not water—to remove them. Some people use an acetylene torch to quickly singe away hair.

Have the participants remove the head by first cutting through the neck muscles to the spine and then sawing through the neckbones with a meat saw.

Tell participants not to worry about the area around the wound until they are ready to butcher the carcass, unless there is extensive tissue damage or discoloration. If damage is extensive, they should cut the affected area away and discard it.



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### Caring for the Hide

Before participants begin butchering, have them take care of the hides. Buckskin is one of the finest leathers available and hunters should take advantage of the 10-12 square feet of buckskin that an average whitetail yields.

Ask participants to lay the hide out with the flesh side up on a flat surface and look it over. Have them remove as much fat or flesh as they can with their fingers or

a knife. Trim away small ragged pieces from the edge since these will not provide usable leather.

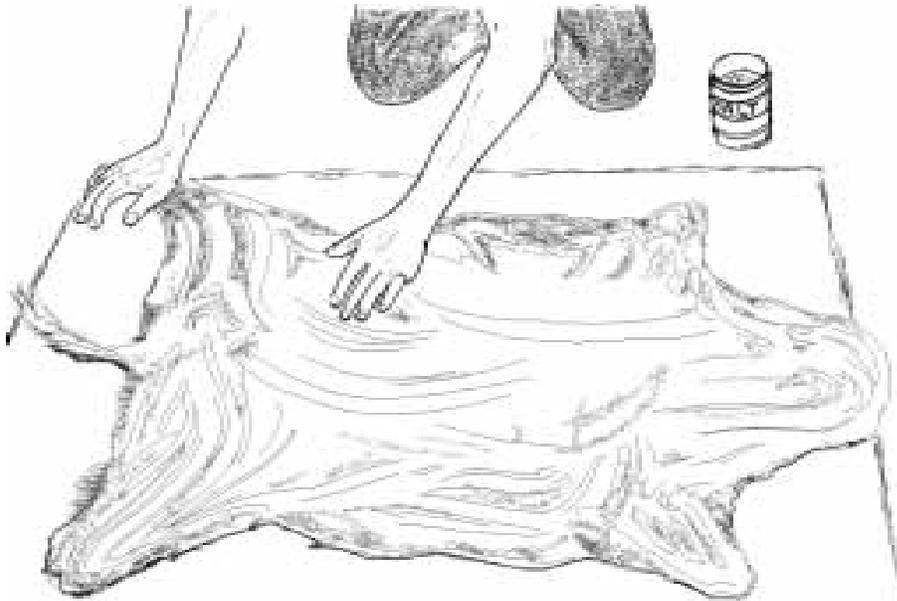
Remove the tail and save it. The tail hair is good for making bucktail fishing fly lures.

Explain that salt is an important means of preserving the hide. Salt draws moisture out of the hide, protects against spoilage, and “sets” the hair so that it



### Caping a Deer

Sometimes hunters may want to have their deer head mounted by a professional taxidermist. They must use a different approach to skinning. They must start skinning with a cut along the back of the neck (not the throat) from the shoulders to between the ears. Remove the hide by working forward until the skull is exposed. Then cut the flesh where the skull joins the neck and saw through the spine to remove the head. Or, they can skin the deer head down by working the hide down the neck until the entire hide is over the head. This is similar to how a sock gets turned inside out. Then participants should remove the head, salt all skin-side surfaces of the hide, and take the entire hide to a taxidermist who will remove all the hide that is needed to mount the head. Check with the taxidermist first to avoid disappointing mistakes: some taxidermists don't like the use of salt, for example.



Rub salt thoroughly into the fresh hide. Roll hide, hair out and deliver to tannery.

doesn't fall out or "slip." Salt is inexpensive and important so don't skimp on it! Use pickling salt, coarse water softener or granular livestock salt. Don't use rock salt. Spread about 3 pounds of the coarse salt into the hide. Be sure to get salt into every fold and corner. Be liberal with the salt. If table salt is all that is available, participants may need up to 5 pounds to complete the job.

Because the salt draws moisture out of the hide, the hide will become very wet and "juicy" within a few hours to a day, depending on the weather. Needless to say, participants will want to be sure they have the hide in a place where the mess won't be a problem. Once the hide gets to the "juicy" point, tell

participants that they should drain the hide, shake off the loose wet salt, and salt the hide one more time. Within 2-4 days the salt will dry and the hide will be ready for shipment. Remind participants to keep the hide out of direct sunlight or extreme temperatures during the salting process.

The hide should now be folded, flesh side in, into a compact bundle. The bundle can be secured with twine and a label attached with the owner's name and address. This guards against loss in shipment or at the tannery.

Tell participants that they are now ready to butcher the carcass.

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## Activity C

# Home butchering

## Procedure

By knowing how to properly butcher a deer, young hunters will gain a better appreciation for whitetail anatomy. It should help them become more intimately involved with their role in the Circle of Life.

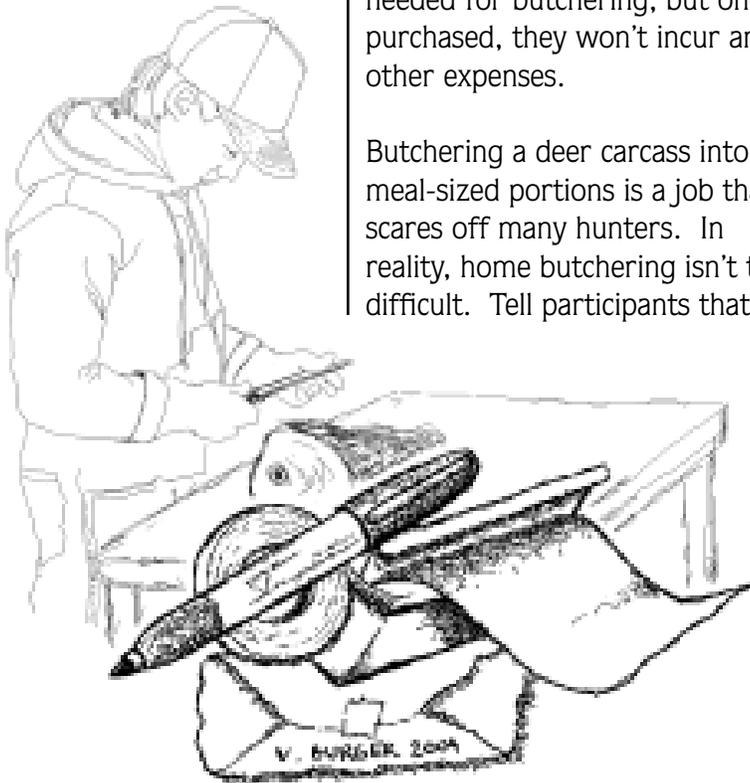
Tell participants that butchering their own deer helps reduce costs. The initial expense is in purchasing the equipment needed for butchering, but once purchased, they won't incur any other expenses.

Butchering a deer carcass into meal-sized portions is a job that scares off many hunters. In reality, home butchering isn't that difficult. Tell participants that by

butchering their own deer, they know they will end up with meat from the deer they shot. They also can take as much time as they care to in removing hair, blood, fat, and tendons to make the finished product more enjoyable at the dinner table. They can package the meat in the portions their family can eat, and make the cuts in sizes comparable to supermarket cuts that are easier to fit into standard recipes.

Finally, by deboning the meat they reduce the amount of valuable freezer space that bones would take up.

A stiff, sharp boning knife, a knife sharpener, two clean 5-gallon buckets, some paper towels or clean rags and a cutting board are all the butchering tools needed. Once the deer is hanging and skinned, your participants can begin working on removing the three basic parts of the meat--the shoulder, the backstrap (loin) and the hindquarters or round. These six parts (three per side) contain 80% of all the meat and all the choice cuts. Since all bones in mammals are connected to other bones by tough ligaments, cartilage and connective tissue, your participants can remove all six pieces of meat without ever having to saw through a bone. This is recommended now, since Chronic Wasting Disease has entered the state.



Have participants remove the forequarters by cutting behind the shoulder blade. The shoulder is attached by cartilage and tissue that can easily be cut with a knife. Pull the shoulder away from the carcass to expose the “armpit.”

Now ask your participants to cut into the “armpit” in order to pull the shoulder away from the carcass. They should make a curved cut above the shoulder blade and through the tough cartilage and surrounding tissue to remove the shoulder.

Have participants watch closely for lymph nodes embedded in the fat around the shoulder. They should avoid cutting into them when butchering since the abnormal prions that cause Chronic Wasting Disease in sick deer have been found to accumulate in lymph tissue. Lymph nodes are grayish lumps of tissue, ranging in size from a pea to a quarter. They are found next to organs or buried in fat. If your participants accidentally cut into one, have them clean their knife in a 50-50 percent bleach and water solution before continuing to cut. Field dressing and skinning removes many lymph nodes. Trimming fat, membranes and cords from meat will remove the remaining lymph nodes. The goal is to produce clean, lean red meat.

Now have participants place the shoulder on a cutting board, with the outer surface facing toward them. Have them locate the long, thin portion of the shoulder blade bone with their knife. Fillet away the muscle bundles on either side of the shoulder blade bone. The remaining lean muscle and the shank can be boned out from the long bone of the upper leg (“arm”). This meat makes excellent stew meat, burger, sausage or jerky.

Place the good strips of meat into one of the clean 5-gallon buckets and the fat, tough membranes, and sinew into the other bucket for discarding later.

Next, have participants cut the backstrap or loin away from each side of the spine by making closely cutting along the spine through the fat and tough connective tissue on the back. Have them pull the strap away from the carcass by working along the tops of the ribs with their fingers and using short knife strokes. Work as far as they can into the shoulder (chuck) and rump until they hit bone. Then cut the strap away at each end. Make the final long cut along the rib cage the entire length of the strap.

Ask participants to take their long strip of backstrap meat to their butchering worktop. Have them lay the backstrap on the table with the red meat up and the white connective tissue down. Ask

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them to make a short cut into one end of the strap, without going through the connective tissue. Now, as though filleting a fish, have them work their knife tight along the length of the connective tissue, removing this tissue from the meat. Show them how to cut the meat into roasts, chops or butterfly chops. To prepare a butterfly chop, cut a double-thick chop. Then cut almost all the way through that slice. Fold it open to form a butterfly shape. Place the good cuts into the clean 5-gallon bucket and the membranes in the discard bucket.

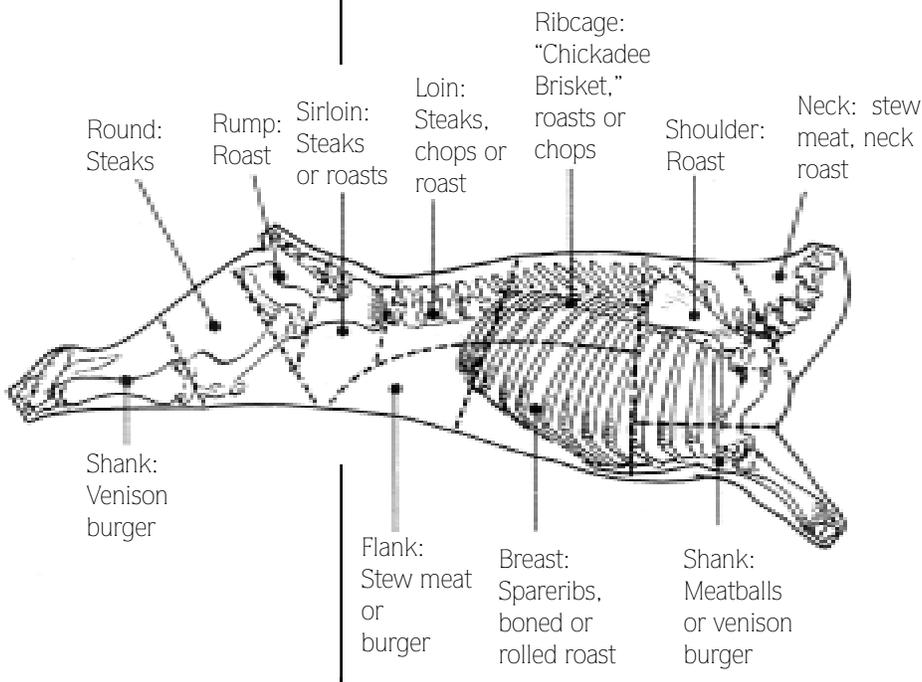
Next, have participants try their hand at removing the round (hindquarter meat). Ask them to use their fingers to locate the ball and socket joint that connects the leg to the pelvis at the hip. Cut

the surrounding tissue to expose the ball of the leg bone, then sever the joint with several knife strokes to the connective tissue around the joint. Participants can lift the entire hind quarter away after a few knife strokes along the pelvis. By keeping the knife close to the pelvic bone, little usable meat will remain on the carcass.

Now place the round on the work table; the outer surface facing up at the participants. Have them locate the white seam in the surface tissue. Cut through this thin layer to expose the large muscles of the round. Separate these muscle groups. The big, "football-shaped" muscle is the sirloin tip. Bone this away from the leg bone, sever it at both ends and set it aside.

Tell participants to use their fingers. They work well for separating the various muscle groups. Once your participants have exposed the interior of the leg, have them cut away and discard the mass of blood vessels, nerves and tissue that lay inside.

Now have them remove the other large muscles of the upper thigh. These include the top round, bottom round and eye of round.



By slicing across the grain through these large muscle masses your participants will be able to form steaks.

The large calf muscle behind and below the knee area can be boned away for stew meat, burger or sausage.

If participants wish, they can remove additional pieces of lean meat from the neck, shoulder, brisket and flanks. The neck offers long strips useful for jerky. Additional trim is best suited for stew meat, burger or sausage. Again, have participants carefully trim off the excess fat and membranes from these small pieces and discard them in the refuse bucket. Place the good cuts of meat in the clean 5-gallon bucket.

The rib cage or brisket makes an excellent winter bird feeder for chickadees, nuthatches, woodpeckers and other suet-eating birds. Encourage participants to hang their cleaned brisket from a sturdy tree limb in their backyard.

Participants should now tightly wrap the steaks, roasts and tenderloins into meal-sized packages using good quality freezer wrap. They should try to eliminate as much air from the packages as possible as they wrap. Finally, have them tape the packages securely and use

an indelible marker to mark “V Steak-Year” or “V T-Loin-Year” or “V Burger-Year” to help identify the cut and year the meat was packaged. Place the wrapped cuts immediately into the freezer.

If participants want to save the antlers, tell them that they should dedicate a saw to just that purpose. They should dispose of the saw blade when they are done, unless they plan to use it to cut up the boned-out carcass for disposal.

Soak the skull cap for an hour in a 50-50 solution of bleach and water. Keep the antlers out of the solution to avoid bleaching them.

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## **Keep it Cool...Keep it Safe**

Keep uncooked venison frozen at zero degrees or less. Keep thawed venison refrigerated at 40 degrees or less..

Thaw uncooked frozen venison in the microwave or refrigerator. Do not leave packages of meat on the countertop to defrost.

Make sure juices from uncooked venison do not touch other foods, especially those ready to eat, as this can cause cross-contamination.

Always wash your hands with hot, soapy water before touching food.

Use clean plates, cooking pans and serving utensils to cook and serve venison. Do not put cooked foods on plates that have held uncooked meats.

Refrigerate leftovers promptly. Cut cooked meat in smaller pieces and refrigeration separately to allow meat to cool quickly.



# Aging deer

## Procedure

A fun activity for your participants is to try to determine the age of their deer. Using the same techniques that field biologists use, your participants can learn how to adequately age their deer.

Looking at a deer's teeth and the replacement of "baby" teeth and the wear of permanent teeth is a reliable, though not perfect, way to age white-tailed deer. Regardless of where the deer live, the deer lose their milk teeth ("baby") teeth and wear out their permanent teeth on predictable timetable.

Newborn fawns have only four teeth on each side of the lower jaw. Adults have 32 teeth: 12

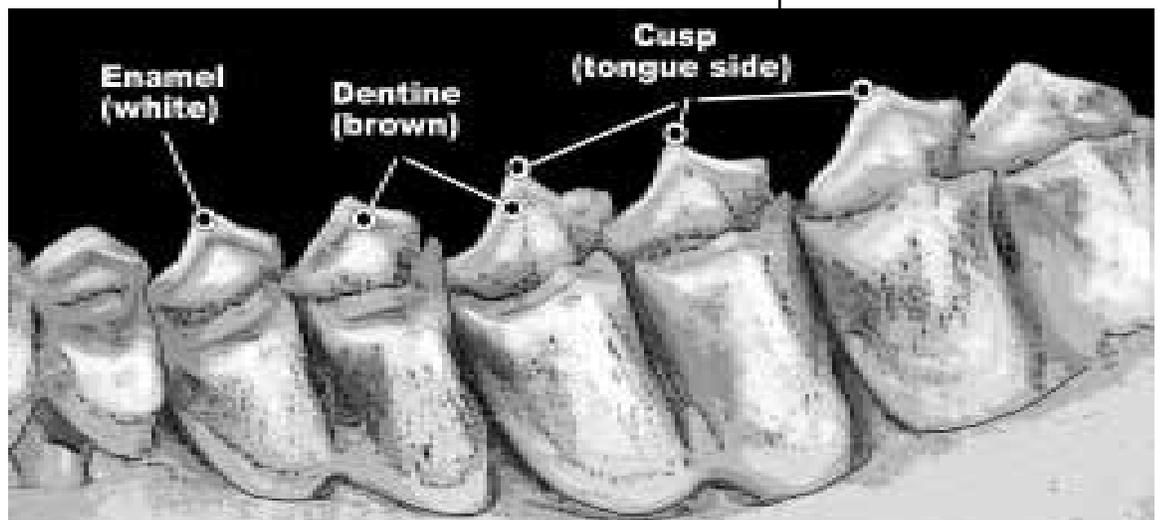
molars, 12 premolars, six incisors and two canines.

On average deer lose about 1 millimeter of molar height per year. A deer that is 11 years or older will have essentially worn its molars down to the gum line.

For this activity, have several laminated copies of **How to Age a White-tailed Deer** available from **Deer and Deer Hunting Magazine**.

Have participants slice through the deer's cheek all the way back to the socket of the jaw. Wedge open the jaw with a pry bar or large screwdriver or other metal device.

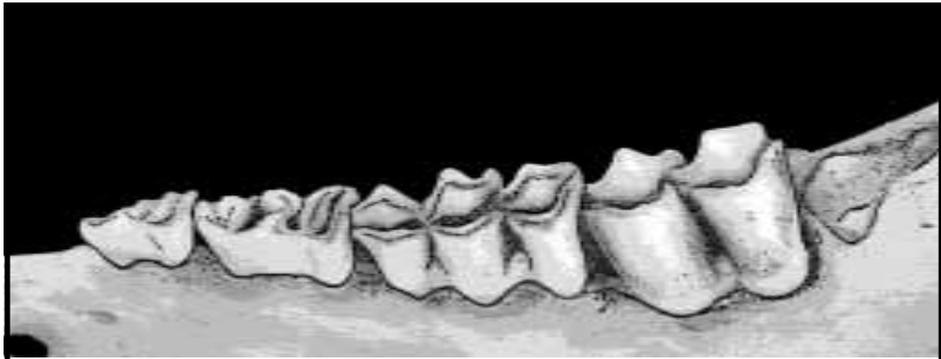
# Activity D



# Station 18

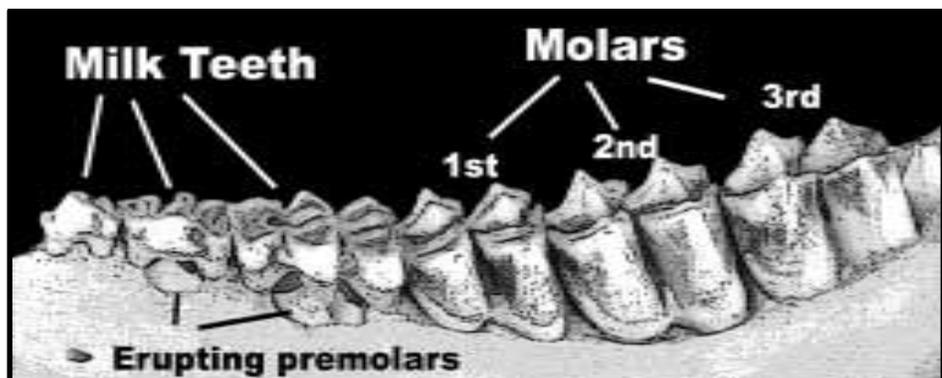
From Field to Freezer

## Learning to Hunt



### **Fawn**

Fawn jaws are noticeably smaller than adult deer jaws. Ask your participants to count the teeth in their deer's lower jaw. If there are fewer than six teeth, the deer is a fawn. Note on the illustration above that the second molar is just erupting through the bone.



### **Yearling (17-18 months)**

When a deer is about 17 to 18 months old, it begins to shed its "milk or baby teeth." Have your participants look for signs of the permanent premolars erupting underneath of milk teeth. Sometimes the milk teeth are loose enough to fall out. Note that the third premolar of the milk teeth has three cusps. The third premolar of the permanent teeth will have only two cusps as shown in the next illustration. Note that the last, or third, molar is still erupting.



### **Yearling (19 months)**

Most yearlings have all their permanent premolars by the time they reach 19 months of age. The new premolars are smooth and chalky white, showing no signs of the pigmentation stains that the older molars exhibit. Have participants count the number of cusps on the permanent third premolar. They should count only two cusps. The third molar has not quite erupted completely through the bone. All teeth show very little sign of wear.



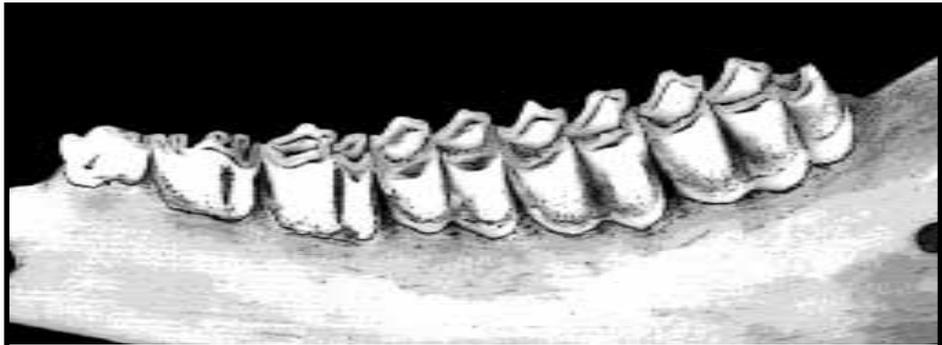
### **2 1/2 Years**

Deer at this age have all their permanent teeth. Have participants look at the crests of the first molar on the tongue side of the jaw. They should note that the white enamel of this tooth appears larger than the brownish colored dentine. Also, they should note the wear on the last cusps of the third molar.

# Station 18

From Field to Freezer

## Learning to Hunt



### **3 1/2 Years**

Now the deer's teeth begin to show the signs of wear and tear. The last cusp of the third molar is often cup-shaped. Have participants look at the first molar. They should note that that cusps on the tongue side are blunted, not as sharp or spear-like as those of the second molar. They should also find that the brownish dentine on the inner cups of this first molar is as wide or wider than the surrounding white enamel. The second molar does not show as much wear, so the dentine on that tooth is not wider than the white enamel.



### **4 1/2 to 5 1/2 Years**

It's difficult to conclude an exact age during this period of life. The first molar, being the oldest tooth, is now almost worn away. The last cusp of the third molar has been worn down so much that its biting surface slopes downward. At 4 1/2, the second molar shows signs of wear to the point that the dentine is as wide or wider than the white enamel. By 5 1/2, this wear has spread to all three molars to the point that the brownish dentine is now wider than the white enamel. By 5 1/2, the crests on the tongue-side have worn down to rounded edges.



**6 1/2 to 8 1/2 Years**

Participants, and biologists alike, will find it increasingly difficult to age deer to a specific age during this period. By the time a deer reaches 6 1/2 years of age, its second and third premolars show heavy wear, while the first premolar shows moderate wear. Little or no enamel remains on the first molar. When a deer reaches 7 1/2 to 8 1/2 years of age, the first molar may be worn down to within 2-3 mm of the gum line on the outside and 4-5 mm on the tongue side. The second molar is almost smooth and the third molar is worn down until the lingual crests are gone.



**9 1/2 Years and Older**

If deer are fortunate to live this long, their teeth are extremely worn. Some teeth may have the pulp cavities exposed, and some may be worn to the gum line.

  
End of Teaching Station

# Station 18

From Field to Freezer

Learning to Hunt

