

FIELD DRESSING, TRANSPORTING AND PROCESSING GAME

A responsible hunter is aware of his or her obligations to properly harvest, field dress, transport and process wild game in a manner which will ensure the final meat product is as safe as possible for consumption. How the game animals are killed and handled afterwards has a major effect on the safety of the game meat.

The first step to ensure good quality meat is to make a clean killing shot. You must know where the vital areas are on the animal and be able to hit them. A properly placed shot helps ensure a quick kill and that the animal will not travel far.

Field dressing, or gutting, is the process of removing the entrails (internal organs) from the animal or bird to promote cooling of the carcass and prevent the meat from spoiling.

The dead animal's body heat and body fluids must be allowed to escape so the carcass can cool down. The retention of heat and moisture promotes the growth of harmful decomposing bacteria that can lead to spoiled meat. Quickly cleaning the animal, propping open the body cavity; and allowing air to circulate freely are essential steps to properly cooling a carcass.

When dressing the animal or bird, the hunter must keep the meat free of dirt, leaves and water. The body cavity can be spread open to allow better air circulation. However, if you use a stick to keep the cavity open, be sure it is clean. It is better to cut a small branch off a living tree rather than using a stick found on the ground. Make sure you do not contaminate the meat with dirty hands, knife or saw. Disposable latex gloves are inexpensive and easy to carry. They will help keep blood off you and also aid in preventing contamination of the meat. To prevent the spread

of bacteria, always make sure you clean your knife and saw after cleaning an animal, and certainly before cleaning a second animal.

Do not wash game in lakes or other water sources in the bush. These are prime sources of bacteria that can contaminate the meat. Instead, carry some paper towels to wipe out the carcass. They are inexpensive, light and can easily be folded to fit into a clean pocket.

Never use plastic wrap, bags or tarps to wrap freshly killed game carcasses or meat in the field. Plastic holds heat and moisture, and can cause the meat to spoil.

BIG GAME

Field dressing big game like white-tailed deer, moose and bear should occur immediately after the kill to protect the quality and safety of the meat.

EQUIPMENT

To dress a big game animal, a hunter needs the following equipment:

- a clean sharp hunting knife;
- a small sharpening stone;
- a length of rope (4 to 6 metres);
- some fluorescent orange flagging tape;
- some paper towels;
- a pair of clean disposable latex gloves; and
- A clean meat saw if quartering the game animal.

TAGGING

When approaching the downed animal, you need to make sure it is dead. Approach from its back or behind to avoid being within reach of its legs and



Cleaning big game

head. Using a stick, poke the animal several times and watch for any reaction. If the animal's eyes are closed this is not an indication that the animal is dead. In fact, closed eyes are a good indication that it is still alive. If you intend to have the animal mounted, your finishing shot should not be in the head or neck as this will spoil the skin for taxidermy.

When you are sure the animal is dead, read the instructions on your hunting licence tag and attach it in the correct manner.

FIELD DRESSING

Look after your own safety first. You will be bending over a dead animal and moving its legs around while cleaning it. Tie some fluorescent tape on a nearby overhead branch to alert other hunters of your presence.

- If the animal is laying in water, mud or other debris, move it to a better location where you can keep it as clean as possible while gutting it. Roll the animal on its back or side. If possible, position it with the head higher than the rump. It is not necessary to bleed the animal, as sufficient bleeding will have occurred from the killing shot and your field dressing.

- Use clean disposable gloves and a clean knife.
- Tie the end of your rope to one of the back legs and pull it back so the animal's belly and crotch are exposed. Tie the rope to a handy bush or limb to keep the leg back, or have a hunting companion hold the legs.
- Cut a line up from the crotch to the tip of the sternum (where the rib cage ends and the belly starts). The weight of the stomach, or rumen, and intestines will pull down away from the incision, lessening the chance of puncturing them. If you cut down from the sternum, the entrails will push out around the incision, making the job more difficult. It is best to cut with the blade up and out of the cavity, which helps to prevent cutting into the rumen or intestines and also prevents dragging hair into the stomach cavity. Use your free hand to push down on the organs to prevent an accidental puncture. Cut to one side of the buck's testicles or a doe's udder.
- Move to the animal's rump and grasp the skin around the anus. Pull the skin out and cut completely around the anus, inserting the full length of the knife blade between the colon, where intestine is connected to the anus, and the bones of the pelvis, or hip bones. When the colon has been freed from its attachments in the pelvic canal, tie a string around the colon just in front of the anus to prevent feces from falling out into the body cavity. Tying off the anus may bring your hands in contact with the animal's feces. If that happens be certain to clean your hands before handling other parts of the carcass.
- With the body cavity now open, reach up into the chest and cut around the diaphragm. This is a curtain of connecting tissue that separates the stomach cavity from the heart and lungs. Reach further up to the neck and grasp the windpipe. Carefully cut the windpipe free at

the throat. Hold the windpipe in one hand and pull backwards. With the other hand, free any internal organs by cutting through the tissue attaching them to the backbone area of the animal. The entrails will spill out onto the ground as you pull. The lower intestine and tied off anus may require an extra tug, but they will pull free and come out from the inside with the other intestines.

- This is messy business, and for larger animals it requires some physical effort. Some of the work inside the body cavity is "by feel" so move slowly and make sure you do not cut yourself with your own knife.
- If you are going to quarter the animal at the kill site for easier transport, it will make gutting easier if you cut the ribs from along the sternum, thus gaining full access to the heart, lungs, windpipe and esophagus. If you want a trophy mount, you must decide before quartering the animal. There will not be enough cape, or hide, on the front shoulders of a quartered animal to do a proper mount. If you do decide you want a trophy mount, the head, neck and front part of the front shoulders should be skinned out before quartering. Once the skin is cut, it cannot be put back on without a flaw in the finished mount. Always take more, not less, to the taxidermist.
- When the entrails are removed, turn the carcass on its side or belly and allow all the blood to drain out. With smaller deer or bear, you may want to use your rope to pull the animal partially up a tree to permit better drainage. Inspect inside the body cavity and make sure all the entrails are removed.
- Do not wash out the body cavity. Any water you find at the kill site will most likely be full of bacteria, which will promote spoilage. Care must be taken not to puncture intestines,

stomach or bladder. However, if rumen, intestinal or bladder contents have spilled onto the carcass, wipe off with clean paper towels. Leave any washing until you get to the camp or home where there is clean potable water. Keep the exposed surfaces of the meat as dry as possible.

- Remember the importance of cooling the meat as soon as possible. This will be discussed in more detail later on.
- In warmer weather, it is best to get the skin off the animal as soon as possible. Leaving the skin on slows the cooling process and encourages bacterial activity. Lightweight cheese cloth bags or specially designed meat bags will help keep debris and litter from getting on the meat and not interfere with cooling. Cheese cloth bags are inexpensive and you should use new ones each year. If you do reuse bags from a previous year, make sure they have been washed and are clean. In cold weather the skin can be left on the carcass until you get to camp or home. If you are leaving the carcass or quarters in the bush for transport at a later time, use your rope and a handy tree branch to pull it/them up off the ground. Another option is to place the carcass or quarters on some poles to lift the meat off the ground. This allows air to circulate and cool the meat. Left on the ground, it will not cool and may spoil, even in cold weather.

Outdoor stores and pharmacies sell inexpensive disposable latex gloves that extend the full length of your arms. They are a good choice for gutting large animals because they keep your coat and shirt sleeves clean. Take your time and think through each step of the cleaning process. Many hunters have set their knife down only to lose it in the gut pile or mistakenly grab it by the blade, causing serious injury.

TRANSPORTING

Depending on the species of game, some parts of the animal must remain attached to the animal while it is being transported. This information is contained in the annual Ontario Hunting Regulations Summary. Make sure you read the Regulations and understand what you are required to do.

You will be transporting your animal from the bush by dragging it, or by using an ATV or other vehicle. If you are dragging, pull the animal by its head, which should be off the ground. Some hunters tie a stick close to the head to make dragging easier. Some hunters use a plastic tarp or one of the various harnesses or carriers available at outdoor stores. Keep the animal clean. Do not drag it through water or mud. Avoid getting leaves and other debris inside the body cavity. It can be exhausting work, so take your time and, if possible, get help.

If possible, do not carry a big game animal on your shoulders or back. You increase your chances of physical injury from falling, or through straining muscles. It is also dangerous to have the animal high on your back where other hunters may mistake you for a live animal.

With larger animals like moose, you may have to quarter the carcass in the bush and backpack it to camp. When quartering the animal, make sure the knife, axe and/or saw you use is clean. Keep the meat free of dirt. Put fluorescent orange flagging or clothing on your packsack. If the animal has antlers, tie some fluorescent orange tape on them as well.

When transporting game by vehicle, be sure to keep the carcass away from engine heat, gasoline, sunlight, and road dust to prevent spoilage. Packing meat quarters tightly in the back of a closed trailer or truck box may cause spoilage due to residual heat. Use clean boards or

other material to raise the animal or quarters off the bed of the trailer or truck to allow air circulation on all sides. Use cheese cloth or other clean wrapping to protect the meat. Do not use plastic wraps. The ATV trailer or the bed of the truck being used to transport the animal should be thoroughly cleaned beforehand. Residual material and bacteria from previously transported items (e.g. gas cans, garbage, chemicals, etc.,) can contaminate the meat.

HANGING AND COOLING

Ideally, game carcasses should be cooled as soon as possible to a temperature not exceeding 7 degrees celsius. Ontario's fall weather is usually cool enough to keep game from spoiling, providing it is hung in a shaded area at the camp where there is good air circulation. If the animal is hung in a shed or garage, make sure potential contaminants (e.g. stored gasoline, fertilizer, etc.,) are first removed. Always make sure there is good air circulation.

This is the time to inspect the carcass and the area of the wound. Any areas of blood clotting and tissue damage should be removed with a clean knife. If left unattended, these spots become sites of decomposition that will spread to other areas. Wear clean latex gloves when you are doing this. If you have a source of clean potable water you can use a damp clean cloth to wipe out the body cavity to remove hair or other debris. Use clean paper towels if you do not have clean potable water. If you are in camp for several days and insects are present, check often to ensure flies are not laying eggs on the carcass. If your animal is hung whole, be sure to cut up the throat and remove the entire windpipe and esophagus, as these often have body fluids and regurgitated stomach material in them. They can be prime locations for early meat spoilage.

The carcass of a big game animal and any organs being kept for consumption should be cooled and

maintained at a temperature not exceeding 7 degrees celsius. Hang the meat in a place that is cool and dry and watch the air temperature while your meat is hanging. At the hunt camp, nighttime temperatures may drop below ideal cooling temperature and daytime temperatures may rise above the ideal. If the carcass is clean and kept in a shaded area with good air circulation, you should not experience any problems. Keep a close watch on the meat. However, if temperatures rise and remain well above the ideal temperature, then the carcass should be taken to a proper refrigeration unit or butchered and the meat frozen.

Remember the principles of responsible hunting you learned in an earlier chapter. Many members of the public do not share your views about hunting, or they simply would prefer not to see a dead animal.

AGING MEAT

Aging is the process of allowing the muscle tissue to break down in controlled conditions. This process allows for the softening of connective tissue and can assist in making older animal meat more tender. Animals should be aged in a dry, clean facility at a temperature not exceeding 7 degrees celsius. If the weather is too hot or cold and you do not have a means of maintaining the ideal aging conditions, the animal should be immediately butchered. Before you go hunting, make sure you have located a processing plant that will take your animal, or make other arrangements to have the butchering done. There are numerous books and videos that provide advice on aging and butchering a game animal.

SKINNING BIG GAME

- If possible, hang the animal off the ground with the head down. A stout stick placed through the hocks of the hind legs makes hanging easier. Attach a rope to the stick and

tie it to an overhanging tree limb or garage rafter. Make sure you secure the carcass with strong rope if you suspend it. Considerable pulling will be done to get the hide off and if the carcass comes down in the process, serious injury could result. If hanging is not possible, place the carcass on level ground on a clean tarp or other clean material.

- Using a clean knife, split the skin on the chest and neck from the opened cavity up to the animal's head. When making these cuts through the skin, always cut with the blade up. This helps prevent cutting off hair and dragging it into the carcass or onto the freshly exposed meat surface. Hairs are difficult to remove, carry bacteria and are unsightly when you prepare the meat.
- Cut along the inside of each leg from above the knee joints to the belly incision. Next, cut around each leg at the knee. Then cut the skin completely around the neck.
- Using your knife, free the skin from the hind legs. Peel the hide back from the hind legs and cut through the tail.
- Continue to peel the hide down the body by pulling and cutting the connecting tissue between the hide and the body. Try to cut only the connective tissue, not the meat or the hide.
- Cut off the front legs at the knee joints using a clean meat saw or handsaw.
- Pull the hide down to the head and off the animal. Cut off the head at the back of the skull with a saw.

Lay the hide on a flat surface with the hair side down. Using a dull knife or other scraper, remove excess fat and tissue from the hide. It is now ready to be salted for storage or

transportation. The hide can be tanned to make leather for gloves and other clothing, or it can be donated to others for such use.

SKINNING TECHNIQUE FOR MOUNTING

If you decide that you would like to have your big game head mounted, you will need to keep the shoulder and neck skin attached to the head. Take some pictures of the head before you skin it. Measurements that include the circumference of the neck at the shoulder, midway up the neck and behind the ears, and the distance from the tip of the nose to midway between the antlers, will help the taxidermist make a proper form for the animal. Use a knotted piece of string if a tape measure is not available. Keep notes of the measurements for later reference.

Cut up the back of the neck from between the shoulder blades to the base of the skull behind the ears. The most difficult part of the operation is skinning around the eyes, ears, antler bases, mouth and nose. Several very sharp knives of different shape and length will aid in the process. Take your time and avoid cutting any hair off the hide. These mistakes will show on the finished mount. The antlers should be left on the skull so the taxidermist can reproduce the proper placement. If you have to remove them for transportation, take a sufficient amount of the skull to show their orientation.

The skinned head and cape should be kept cool or salted until you can deliver it to a taxidermist. Freezing is also a good way to preserve the mount.

PRESERVING THE HIDE

A hide should be salted or frozen to preserve it for future use. Use finely crushed or pickling salt in the amounts indicated in the following table:

AMOUNT OF SALT REQUIRED

Game Species	Cape Only	Whole Hide
Deer	0.9 kg (2 lb.)	0.9 to 1.4 kg (2 to 3 lb.)
Moose	2.2 kg (5 lb.)	4.5 to 5.4 kg (10 to 12 lb.)
Black Bear	0.9 kg (2 lb.)	1.4 to 1.8 kg (3 to 4 lb.)

Lay the hide flat on the ground, hair side down, and stretch it to its fullest extent. Sprinkle salt freely and evenly over the entire hide. Rub the salt vigorously into the skin with the flat of your hand. Be certain the edges of the skin are thoroughly salted.

If the head is still attached for mounting purposes, work the salt into the lips, ears, nose and other difficult areas to ensure it covers them completely.

Salt draws the moisture out of the hide. After leaving the salted hide exposed to the air for 24 hours or more, sprinkle additional salt lightly over the hide, then fold it with the hair side out. Keep it cool until it is delivered to the taxidermist. Don't place it in a plastic bag or closed container while transporting it.

The feet on a bear should be skinned out to the last joint of the toes and the bones disconnected. Cut away all fatty tissue. Use plenty of salt and rub it in well.

Some hunters may have no use for the hide, and may have no accessible location to make it available to someone else. If a hide is not going to be used, it should be disposed of in a proper landfill location or left in the bush. In the bush it will be utilized by birds, rodents and insects, and absorbed back into the ecosystem. However, do not dispose of a hide near roads or trails where it can be observed or smelled by others, or dragged out of the bush by dogs.

BUTCHERING

One option to cut up your game is to have it done commercially at a government-inspected meat-processing plant or butcher shop. You may choose to butcher your game yourself; however, it is a big job so be sure you are prepared before taking it on. Meat-cutting guides are available at many bookstores.

GAME BIRDS

Game birds should have the entrails removed as soon as possible. Always use a clean knife and latex gloves.

A grouse is easily cleaned by cutting through the belly skin along the base of the breast and then bending the bird backwards. This maneuver opens up the incision, making the entrails visible and easy to remove.

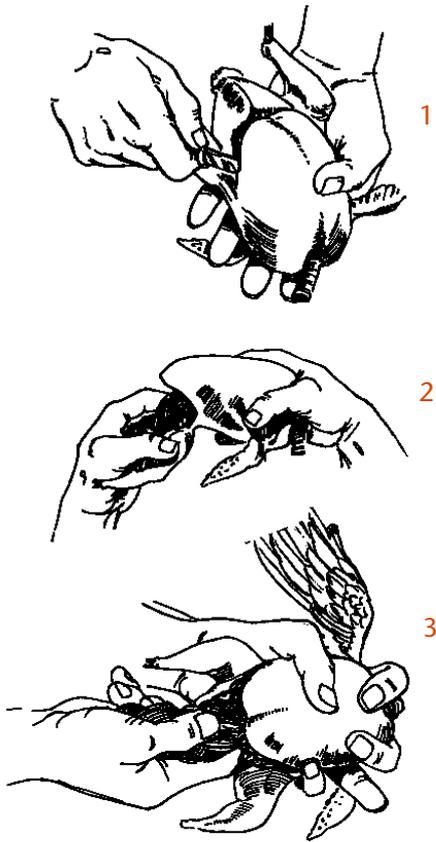
Another method of field dressing grouse and waterfowl is to use a small clean knife to enlarge the anus hole, insert your fingers and draw out the innards.

One attached fully feathered wing must remain on migratory birds while transporting. Check the regulations with regard to wild turkey.

It is a good idea to carry disposable gloves for cleaning game birds.

SKINNING, PLUCKING AND CLEANING

Game birds can be plucked or skinned. Plucking involves removing the feathers from the skin. It can be time consuming, but the final product resembles a bird you might purchase in a grocery store. Skinning a game bird is easier than plucking. Many hunters do not eat the skin from game birds and therefore save themselves the effort of plucking.



Cleaning game bird

COOLING AND TRANSPORTATION

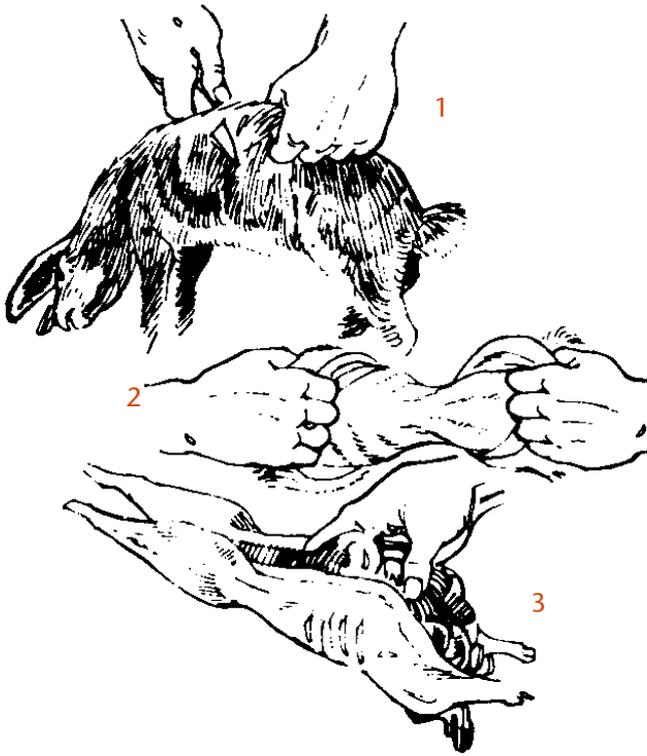
Birds must be cooled or the meat will spoil and should be cooled and maintained at a temperature not exceeding 4 degrees celsius. Do not pile birds together in a bag or box. Do not leave waterfowl in the bottom of boats where water, mud and spilled gasoline may contaminate the meat. Keep the birds on a seat or in a proper container where they are protected from dirt and where air can reach them.

Some hunters suggest hanging field dressed birds two to three days to cure them before freezing. However, modern research clearly indicates that quick cleaning and freezing reduces bacteria and preserves the quality of the meat. If birds have heavy tissue damage from shot, they can be soaked in a solution of cool saltwater to remove clotted blood before freezing them.

CARE OF TROPHY GAME BIRDS

If you plan to have a taxidermist mount a bird for display, you should do the following:

- Immediately after retrieving your game bird, wipe any blood off its feathers using a clean cloth. Dab the cloth lightly in water to remove stains. Do not rough up the feathers but wipe in the direction they lie. Prevent further bleeding by stuffing tissue or cloth in the bird's mouth and nostrils.
- Place the bird in your car or boat in a clean area where it will not be disturbed. Smooth out the feathers before laying it down. If you have a distance to walk, place the bird carefully in a paper bag or pack, or carry it with the head down so blood from the mouth or nostrils does not stain the feathers.
- Do not gut any bird you intend to take to a taxidermist.
- At home, check to ensure all feathers are correctly positioned and smoothed down. Wrap the bird in paper or a plastic bag and freeze it. Keep it frozen until you deliver it to the taxidermist.



Cleaning rabbit

RABBITS AND HARES

Carry disposable gloves for cleaning rabbits and always use a clean knife.

To field dress a rabbit:

- Cut off its head and remove its feet at the ankle joint.
- Pinch the loose skin on its back between your fingers and insert your knife through the skin, cutting across the back.
- Grasp the hide on both sides of the cut and pull it away in opposite directions. Peel the hide completely off and remove the tail.
- Cut the abdomen open and remove the entrails. Trim away any shot-damaged meat.

- Keep the carcass in a cool location while transporting it home. The carcass should be cooled and maintained at a temperature not exceeding 4 degrees celsius, as soon as possible.

PREPARING THE MEAT FOR CONSUMPTION

Unlike domestic animals that go through licenced processing plants, wild meat is not government-inspected. This places a special duty on the hunter to ensure the meat that is safe and well cared for. Always wash your hands before preparing food and keep raw meat away from other food. Thaw your meat in the refrigerator or microwave, not on the kitchen counter.

You risk your health and the health of others when you do not thoroughly cook meat. Health officials indicate that meat must be cooked to a temperature of 82 degrees celsius or higher. Use a meat thermometer to check that it is cooked all the way through. Clean the thermometer after each use. Red meat is cooked when it is brown or grey inside and birds are cooked when the juices run clear.

For additional information on safe food handling consult your local public health unit.