

UP CLOSE AND PERSONAL

KNOW

BIG GAME

By **Chuck Adams**
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Photos courtesy of Author

ANATOMY

“Half a buck is better than none,” a shirttail relative of mine was fond of saying when I was a kid. “If I can see hair, I’m going to shoot!”

This particular character, God rest his soul, was a notoriously poor shot on game. More often than not, if he hit a deer at all, he nailed it in a bad spot. The smallish Columbia blacktails in my native northern California usually went down with any solid hit from a large-caliber rifle, and my relative carried a .300 Weatherby. He often lost one or both hams or the backstraps of a deer, but he usually ended up with half the meat. Mission accomplished.

This sloppy approach to shooting always bothered me, even before I was old enough to tote anything larger than a BB gun. I figured, from an early age, that you should get close enough and aim precisely enough to cleanly drop your target. There are enough variables in hunting without whanging away in the general direction of a critter.

No matter how far you shoot, you should know where to aim and have the ability to place your projectile on target. If you lack the confidence to nail the vital zone, you should try to get closer. Not all North American species can be dropped as easily as a 140-pound blacktail deer. In any event, a poor hit usually ruins precious meat. You owe straight shooting to the animal, and you owe it to yourself.

The first step in dropping big game is knowing the size and location of the vital heart/lung zone. If you don’t know specifics about your target, how can you possibly hit it on purpose?

A fuzzy knowledge of big game anatomy can create several problems.

One is misplaced outrage at other hunters. For example, I once had a notoriously cantankerous bowhunter take me to task

for shooting an Alaska-Yukon moose through both lungs at 38 yards away. This guy was a part-time writer and seminar speaker, and routinely boasted about shooting whitetail deer from 20 or 25 yards. His complaint about me was bogus by his own standards, because an average bull moose has a lethal target zone more than twice as large as a whitetail’s 8-inch vital chest. Mathematically, in terms of target size and hit percentage, a 20-yard whitetail shot equals a 50-yard moose shot. I doubt the guy had ever seen a moose up close and personal to realize just how big old Bullwinkle really is.

Here’s another more serious problem with uncertainty about animal anatomy.

One gun-hunting acquaintance of mine admitted that he “pulled to the middle of animals” and let fly. “The lungs stretch halfway back in the body, don’t they?” he continued. He had obviously never autopsied the game he shot and probably thought that paunch material blown through the meat was something every bullet caused no matter what the point of impact.

Myths about big game anatomy abound. I began hearing one of these early in my bowhunting life, and I still hear it occasionally today.

“I don’t shoot straight down at deer from a tree stand,” one guy told me not long ago. “The vital zone is too narrow and too hard to hit from above.”

Several years ago, I shot a nine-point whitetail in November. It was bitterly cold, and the gutted deer froze solid overnight on the meat pole. I cranked up my chainsaw the next morning, braved minus-25-degree weather, and cut that buck in half just behind the shoulder. My suspicions were confirmed. The chest cavity measured exactly 8 vertical inches between spine and brisket, and 8-1/4 horizontal inches between the inside of the ribs. I took photos with a ruler to prove the point.

Shooting practice on a 3-D deer target will sharpen a bowhunter's skill to hit the vital chest.

MY!

If you don't know where the vitals are on an animal like this black bear, how will you know where to aim?





LEFT: Chuck's massive mule deer turned broadside and presented more than 10 inches of vertical chest cavity. You should know the size of the heart/lung zone in every big game species you hunt.

RIGHT: Chuck shot this big black bear with one shot through both lungs. It ran less than 50 yards and dropped.



No matter what the shooting angle, the inside chest of a deer and most other North American species measures almost exactly the same in cross-section.

Precise location of the chest cavity is a different matter. A friend of mine had always been a master at shooting elk, deer, and pronghorns. But then he traveled to Africa to fulfill a lifelong dream. Nobody told him that many animals on the Dark Continent have heart/lung zones farther forward than those in North America. He gut-shot a wildebeest and a giraffe the first day of the hunt. Both bullet placements would have drilled the boiler room on any North American critter. Thanks to skilled trackers, my pal recovered the animals and quickly learned to aim along the backline of the foreleg instead of several inches behind it.

You should know the average size of the vitals in every species you plan to hunt with gun or bow. For example, most whitetail bucks have a heart/lung cavity 8 to 9 inches from top to bottom. A mule deer's chest cavity measures a bit more, usually 9 to 11 inches deep. A bull elk's vital chest measures 15 to 16 inches deep. In every case, this vital zone comprises about 60 percent of total body depth, with 30 percent being spine tissue above the chest and 10 percent being brisket tissue below.

As an example, consider the American elk. A broadside bull presents a profile approximately 28 inches deep just

behind the shoulder—7-1/2 inches of meat and bone above the chest cavity, three inches of meat and bone below the cavity, and about one inch of hide and hair above and below. The center of the vital zone is slightly below center in the animal, and as in most North American big game, the rear of the chest cavity extends several inches behind the backline of the foreleg.

There is a wealth of information available about big game anatomy in books and on the Internet. As a bowhunter, I especially like the anatomy guides for various species published by the National Bowhunter Education Foundation. Some state game departments like Alaska's also offer big game anatomy diagrams free of charge. If you Google "big game anatomy", you can instantly view heart/lung and skeletal structures of common North American critters like deer, elk, and bear.

Diagrams are great, but actual shooting practice is better. With a rifle, you can quickly determine how far you can actually hit a deer's 8-inch chest cavity or an elk's 15-inch vital zone. Tape a white paper plate on a cardboard box and do some shooting in the field.

Relaxed target shooting is one thing, and real field shooting is another. The late, great Jack O'Connor often wrote that most riflemen cannot consistently drop deer-sized game beyond 200 yards. A "wobble factor" takes over when you are cold, tired, or excited

and forced to blaze away from an off-hand or sitting position.

Shooters can improve their field performance in many simple ways. A slight adjustment of trigger pull on a rifle can lead to crisp, superior shots. Using an auto-alignment bow sight like the popular IQ Sight with Retina Lock Dot can help to prevent hits to left or right in the heat of the shooting action.

Bowhunters are well advised to practice on 3-D foam targets that realistically duplicate the size and shape of deer. My favorite is the GlenDel Buck target, available in three sizes to match the stature of deer weighing 200, 250, or 300 pounds. All GlenDel Bucks feature a unique rotating foam cube in the kill zone with heart, lungs, and liver lightly etched in the surface. One side of this cube shows the vitals when a deer is viewed broadside at ground level. Another side shows vital location on a quartering deer, and a third side shows vital location when viewed broadside from an elevated stand. This is a terrific teaching tool for hunting archers, and the GlenDel's durable layered foam design withstands thousands of arrow impacts for years of trouble-free shooting.

You should learn the size, shape, and placement of a game animal's heart/lung zone before you hunt. Then and only then can you decide where to aim and how far to shoot when a deer, elk, or bear appears. ■



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