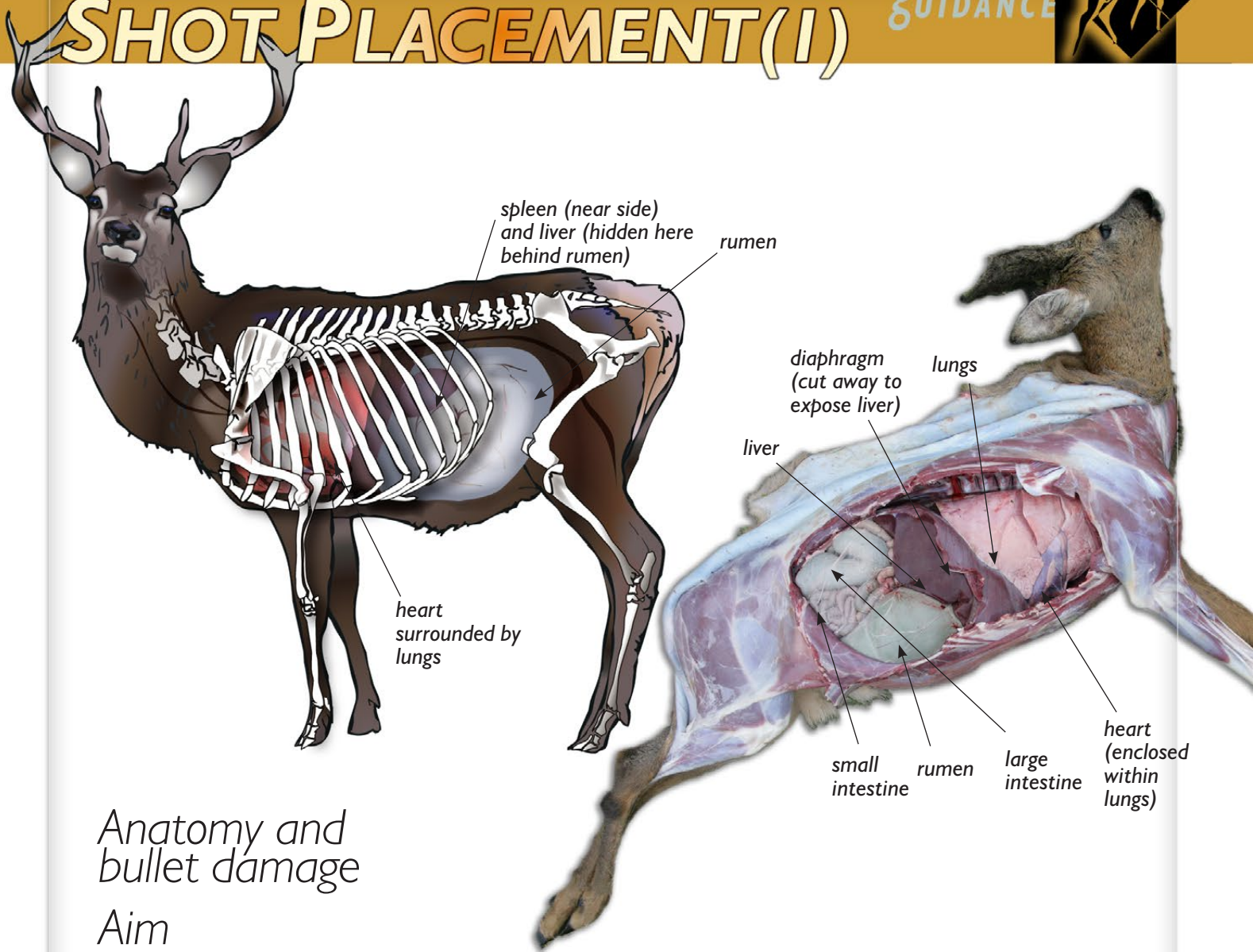




SHOT PLACEMENT (I)



Anatomy and bullet damage

Aim

The aim of this guide is provide information on the anatomy of deer and the consequences of bullet damage, to enable shots to be placed which:

- ◆ Achieve rapid death;
- ◆ Minimise suffering;
- ◆ Avoid carcass contamination.

The BP Firearms guides are an essential accompaniment to this guide.

Anatomy

- 2 Be familiar with the relative positions of the heart, lungs, rumen, spinal column, bones of the shoulder, upper foreleg and brain.
- 2 Consider the angle from which the shot is being taken. The body is a dynamic, three-dimensional structure and the relationship of an internal organ to the external features can vary depending on the posture of the deer.

'Time to death' following shooting

'**Rapid**' death is caused by the combination of the temporary and permanent tract wounds* of the bullet causing rapid loss of blood and circulation, leading to rapid loss of consciousness and death. A well-placed shot, with an appropriate bullet in the recommended target areas, will result in death in less than five minutes in most cases.

'**Slow**' death can result from badly placed shots (e.g. those rupturing the stomach or intestines), leading to only a gradual loss of circulation.

'**Consequential**' death may follow after a non-fatal wound, such as a jaw injury or broken leg, which leads to starvation or secondary infection.

Minimising suffering

The quicker a deer bleeds out and loses consciousness following shooting, the less it will suffer. Loss of consciousness from bullet damage is generally achieved through loss of blood circulation – either through the heart being destroyed or through blood loss. Instantaneous loss of consciousness can only be achieved if the bullet destroys vital areas of the brain, (for example when carrying out humane dispatch at close quarters).**

The aim of good bullet placement should be to induce maximum blood loss and induce unconsciousness as swiftly as technically possible, rendering the animal insensitive to pain. Care should be taken to ensure the animal remains unconscious until there is a complete loss of brain responsiveness due to lack of blood circulation or blood loss.

Current knowledge on the onset of pain indicates that if death occurs within five minutes then the likelihood of the animal experiencing pain could be reduced.¹ The five-minute period should allow adequate time for the stalker to take any further action necessary.

Species and size of deer

The disparity in size between large and small deer has a significant influence on shot placement. In general, in small deer (either species or calf/fawn) the angle of oblique shots becomes more critical if the heart, lungs and large blood vessels in the chest are to be hit.

Bullet placement

Head shots Unless at close range, a small movement in the head of the deer is likely to result in a misplaced bullet which can cause serious and unnecessary suffering. Head shots, due to the small target area of the brain, should only, if ever, be considered at close range, and then only as a second follow-up shot.

continued in Shot Placement(2)

Neck shots are discouraged. Stalkers should be aware that a neck-shot deer may be paralysed but fully conscious. Not all neck shots break the spine. A non-fatal wound can be caused to the windpipe or foodpipe and the animal can run off.

Bullet injuries to the abdomen are likely to cause fatal injury but the time-to-death interval is unacceptable. Bullet injuries that rupture the stomach also increase the risk of carcass contamination.

Bullet injuries to limbs, while usually non-fatal, may result in consequential death and will lead to significant suffering.

Chest shots As a result of all these factors, Best Practice recommends that in order to:

- ◆ Achieve rapid death,
- ◆ Minimise suffering, and
- ◆ Avoid carcass contamination from ruptured stomach contents

the broadside chest is the best target area for optimum bullet placement, (that is half way up the body and just behind the line of the foreleg).



* See *Firearms Rifles and Ammunition*
** See *BPG Humane Dispatch*

¹ There is considerable evidence from people who have been shot to indicate that onset of pain is delayed for a variable period (usually measured in minutes) after shooting. It is probable that the same phenomenon occurs in deer.