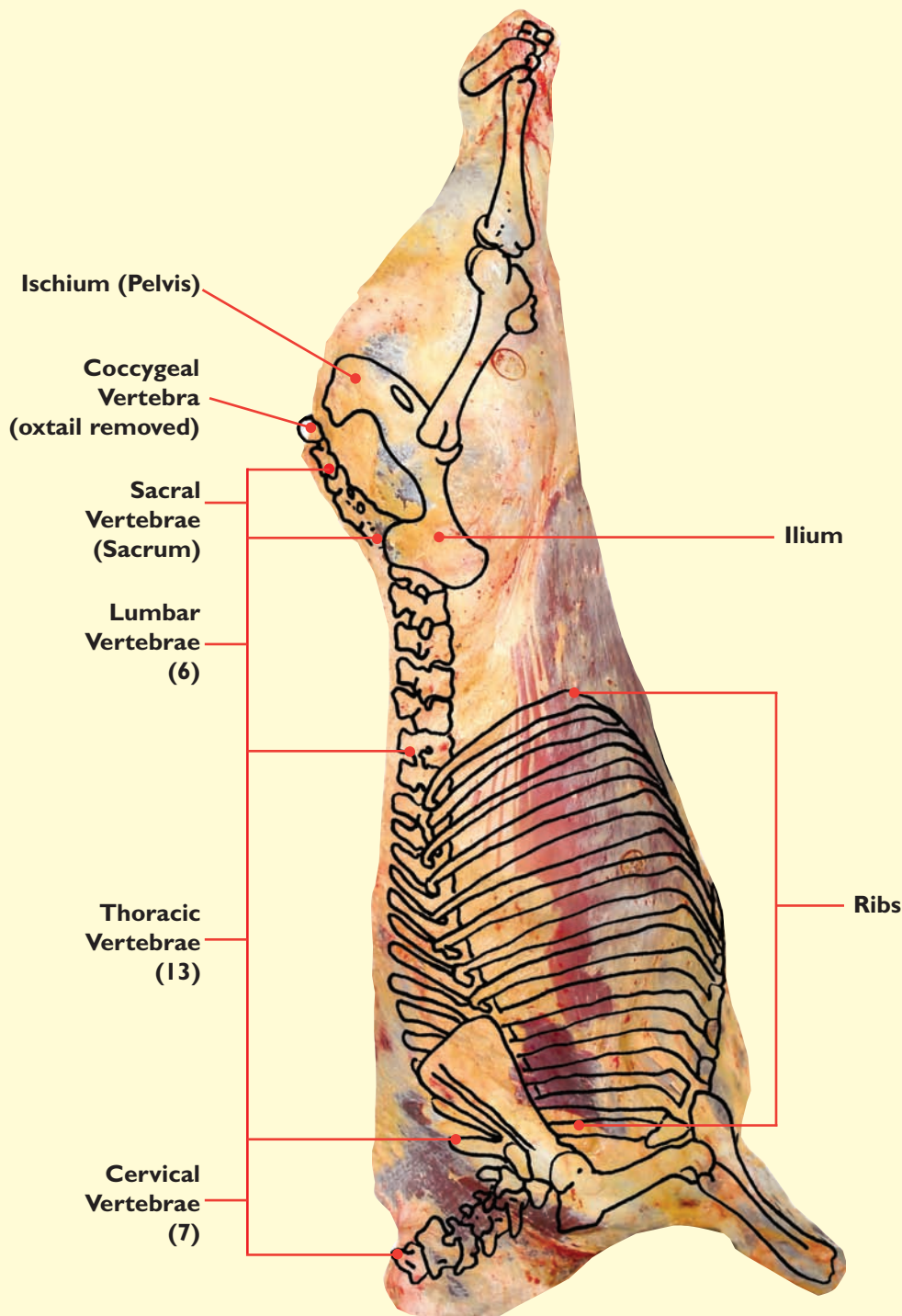


Removal of Vertebral Column

It is a **legislative requirement** that the vertebral column (VC) from cattle over 24 months of age is removed and treated as specified risk material (SRM). The legal definition of SRM **includes** the dorsal root ganglia (DRG), however it **excludes** the median sacral crest and the wings of the sacrum, the vertebrae of the tail and the spinous and transverse processes of the cervical, thoracic and lumbar vertebrae.

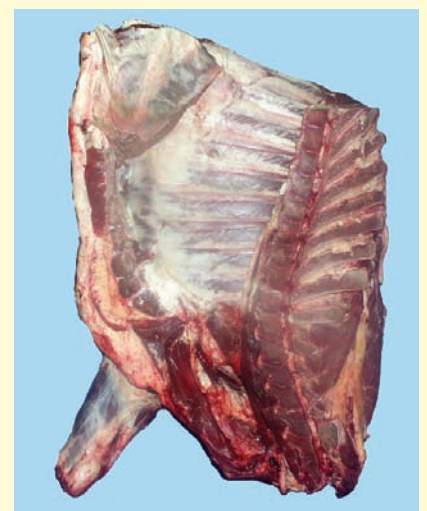
This leaflet provides guidance on the removal of VC (SRM) in compliance with the legislation.



Hindquarter



Forequarter

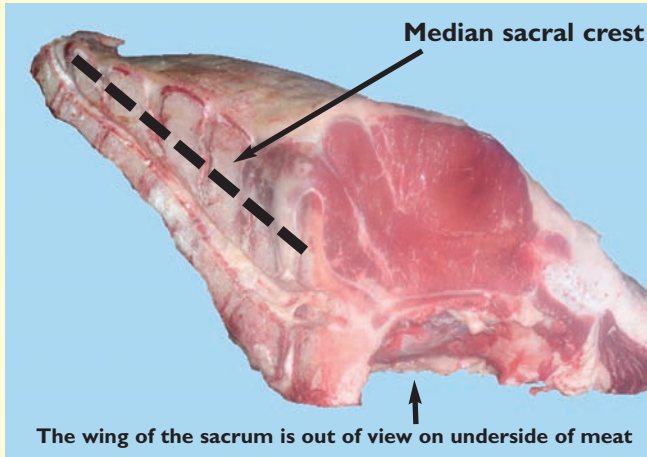


GLOSSARY

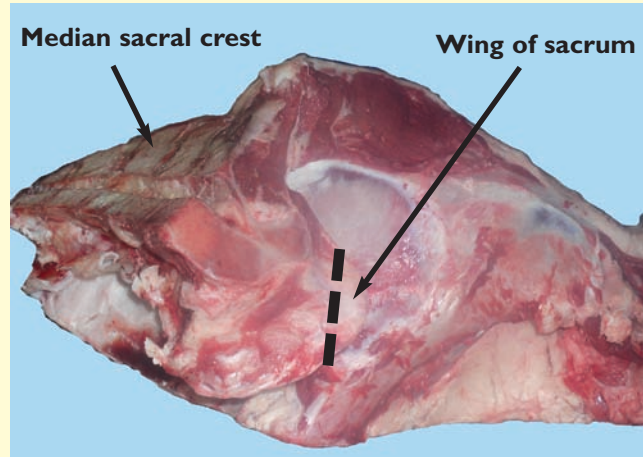
- **Central part of Vertebral Column:** Chine bone (regional variations may apply)
- **Ilium:** Hip bone / rump bone
- **Sacrum:** The bone formed by the fusion of the sacral vertebrae
- **Median sacral crest:** The fused sacral spinous processes
- **Spinous process:** Feather bone (regional variations may apply)
- **Transverse process:** Finger bone (regional variations may apply)
- **Wings of the sacrum:** Modified or reduced transverse processes of the sacrum

STEP-BY-STEP GUIDE TO REMOVAL OF VERTEBRAL COLUMN FROM PRIMAL CUTS

Sacral vertebrae (including the median sacral crest and wings of the sacrum) : Rump



Rump showing median sacral crest. Dotted line indicates portion of the sacral crest that could be left attached to the primal rump.

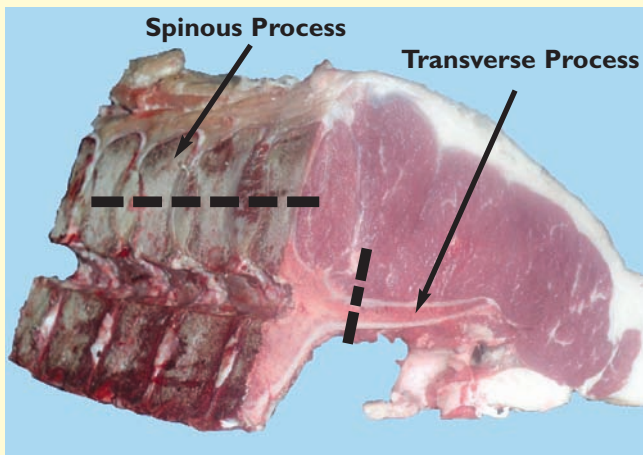


Rump with wing of sacrum partially separated by knife, leaving the ilium attached to the rump. Dotted line indicates portion of the wing that could be left attached to the primal rump.

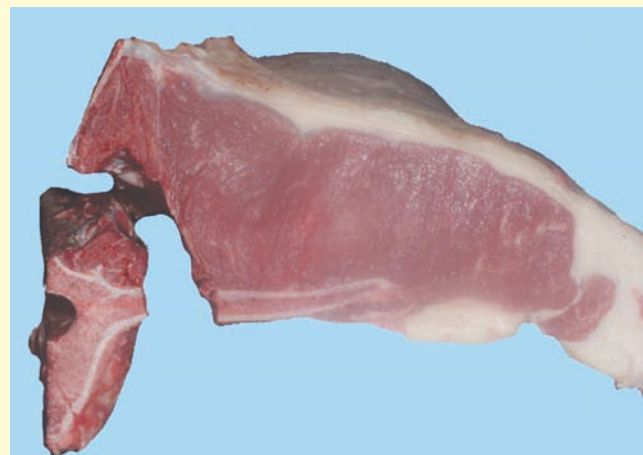


Sacrum removed as one piece including the median sacral crest and the wing of the sacrum.

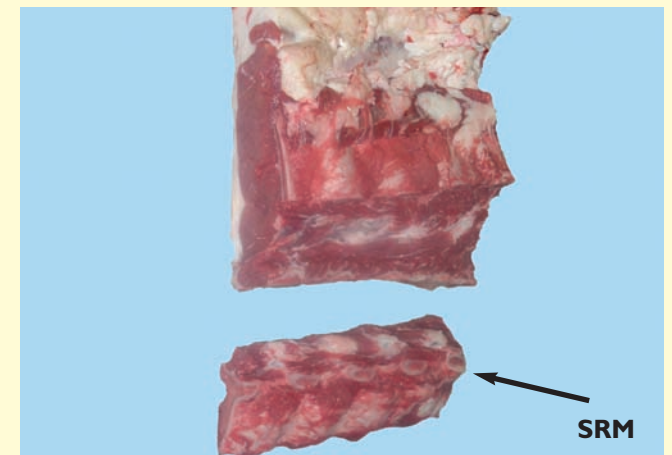
Lumbar vertebrae : Sirloin



Bone-in sirloin.

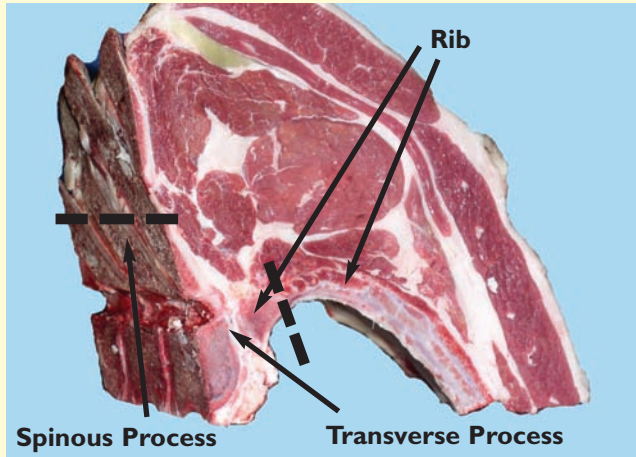


Partial separation of the vertebrae from the sirloin with the transverse and spinous processes remaining attached.

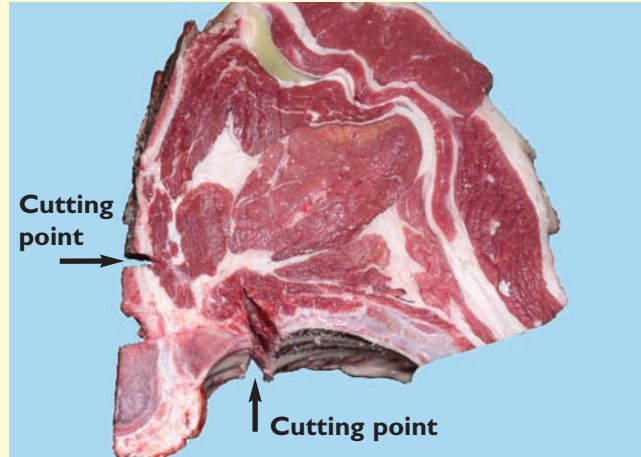


Vertebrae removed and left untrimmed.

Thoracic vertebrae : Forerib (also applies to the chuck)



Bone-in forerib.

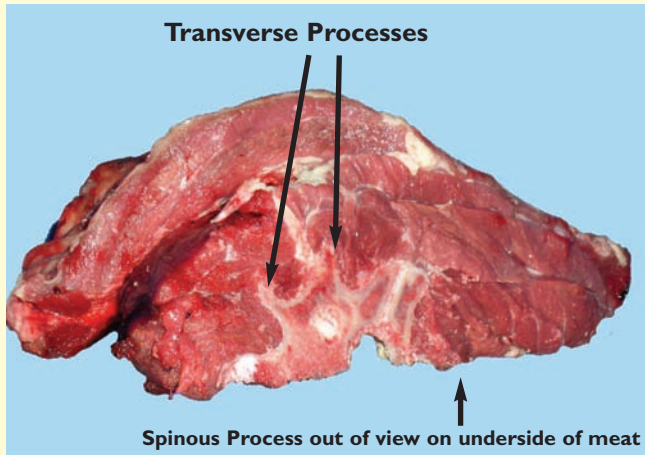


Partial separation of the vertebrae with the ribs and spinous processes remaining attached to the meat.

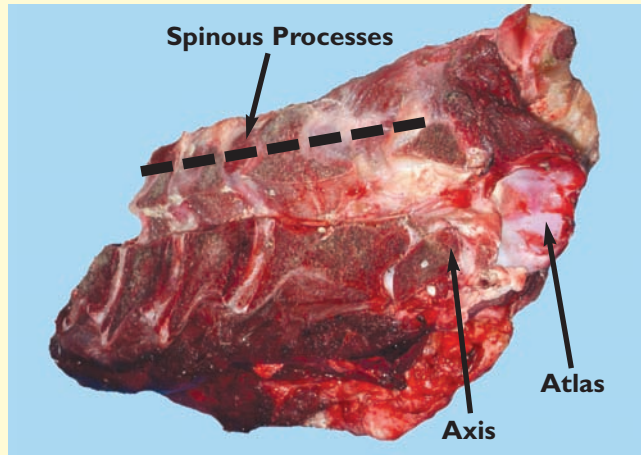


Vertebrae removed and left untrimmed.

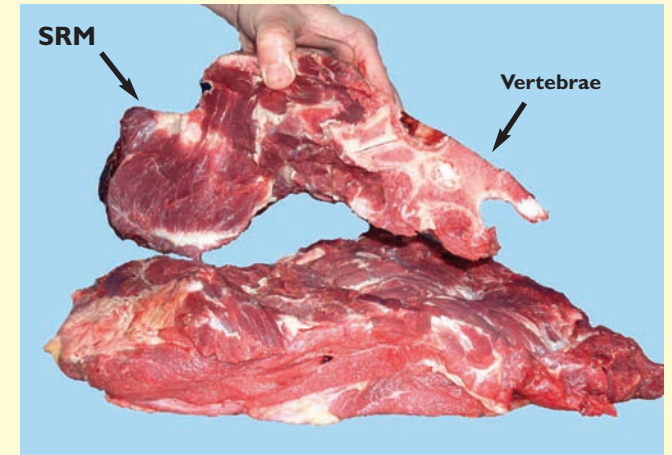
Cervical Vertebrae : Neck



Posterior end of neck showing the vertebral structure (cut through at the 6th cervical vertebra).



Anterior end of neck showing the first two vertebrae (the atlas and axis).



Removal of the vertebrae left untrimmed. Although the spinous and transverse processes are not SRM they are removed with the vertebrae to avoid leaving DRG attached in the meat.

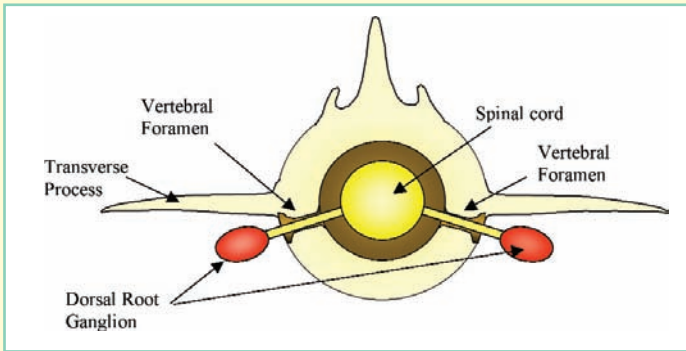
If you have any queries about this leaflet please contact your local authority.

(c) Food Standards Agency 2006

Prepared by the Food Standards Agency in conjunction with the Meat and Livestock Commission.



Dorsal Root Ganglia (DRG)

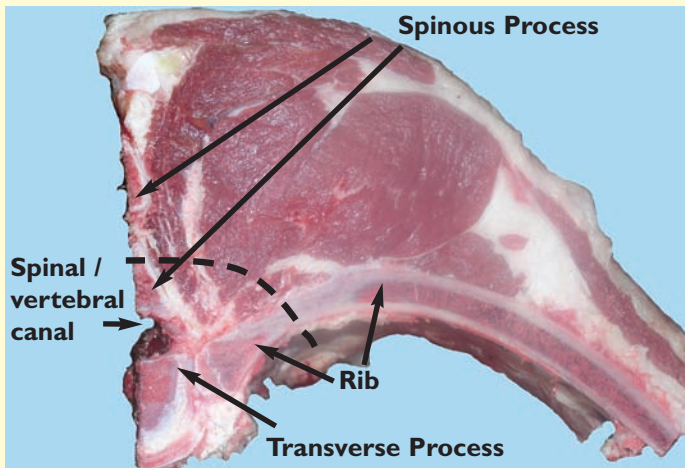


Courtesy: University of Bristol

The spinal cord lies in the spinal or vertebral canal within the vertebral column. A number of nerves arise from the spinal cord and each nerve exits the canal via a foramen (the space between adjacent vertebrae). As the nerves exit the canal they form the Dorsal Root Ganglia (DRG). The exact location of the DRG can vary along the length of the vertebral column and they can be found inside or outside a foramen (the latter is shown in the illustration above).

The DRG are defined as SRM and the butchery procedures illustrated in this guide have been designed to avoid DRG remaining in the meat after boning.

Thoracic vertebra with rib



The ribs are not defined as SRM but the cutting lines indicated have been selected to avoid leaving DRG in the meat.

Boning methods and practices which avoid SRM remaining in the meat

Traditional boning practice, which aims to maximise yield by removal of bones cleanly and individually, increases the likelihood that DRG will remain with the meat. Sheet boning, where bones are removed in one piece without further trimming, reduces this likelihood. Also, removing the fillet by pulling it out as opposed to cutting it out will reduce the potential for the DRG to remain within the meat.

Handling Specified Risk Material



Simple equipment for storage and staining of specified risk material can be purchased from any DIY or hardware store.



Bins must be:

- Labelled (i) "SRM" and (ii) "Cat. I ABP. For disposal only".
- Impervious (leakproof) and covered.
- Kept adequately separate from any food.
- Thoroughly washed as soon as reasonably practical after use.
- If intended for any use other than SRM, they must be thoroughly washed and disinfected before such use.

Staining means treating the material (by immersion, spraying or other application) with a 0.5% weight/volume solution of the colouring agent Patent Blue V (E131, 1971 Colour Index No. 42051). The stain must be applied in such a way that the colouring is and remains clearly visible over the whole surface of the material.

A **Commercial Document (CD)** must be completed and accompany the SRM despatched for disposal. A copy of the CD must be retained for two years.