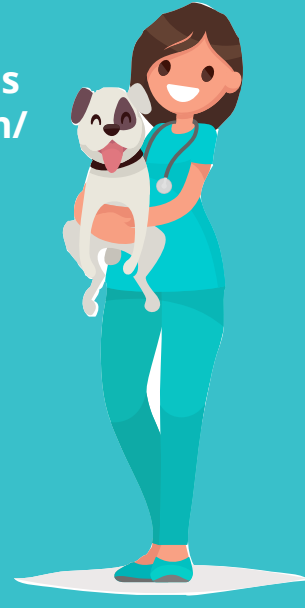


Risk of death from sedation/ anaesthesia in UK dogs

General anaesthesia and sedation are common veterinary procedures but can result in substantial worry for owners. Owners may be particularly concerned about anaesthetic risk for young dogs undergoing neuter surgery.

This study aimed to provide a reliable evidence base on the overall risk of death related to sedation/anaesthesia in dogs across the UK. Specific emphasis was placed on understanding risks associated with neutering. Anonymised veterinary records were searched for any deaths in the 2 weeks following sedation/ anaesthesia.



Number of dogs in the study which had sedation or anaesthesia 2010-2013

157,318

Number of dogs which had neuter surgery 2010-2013

89,852 (57.11%)

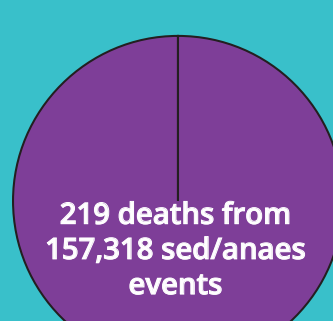
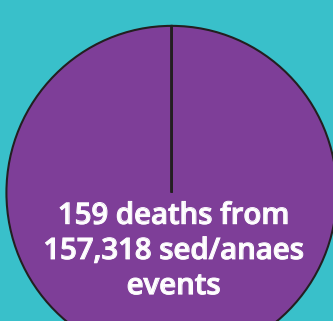
Deaths related to sedation/ anaesthesia

All procedures

Within 48 hours:

Within 2 weeks:

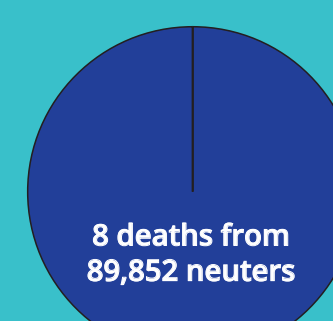
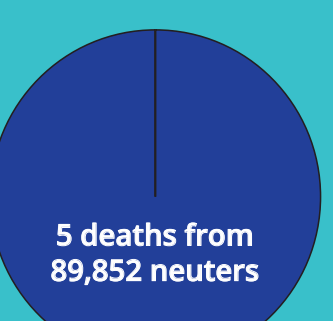
10 per 10,000 dogs died related to sedation/ anaesthesia within 48 hours of procedure (0.10%)



14 per 10,000 dogs died related to sedation/ anaesthesia within 2 weeks of procedure (0.14%)

Neuter surgery

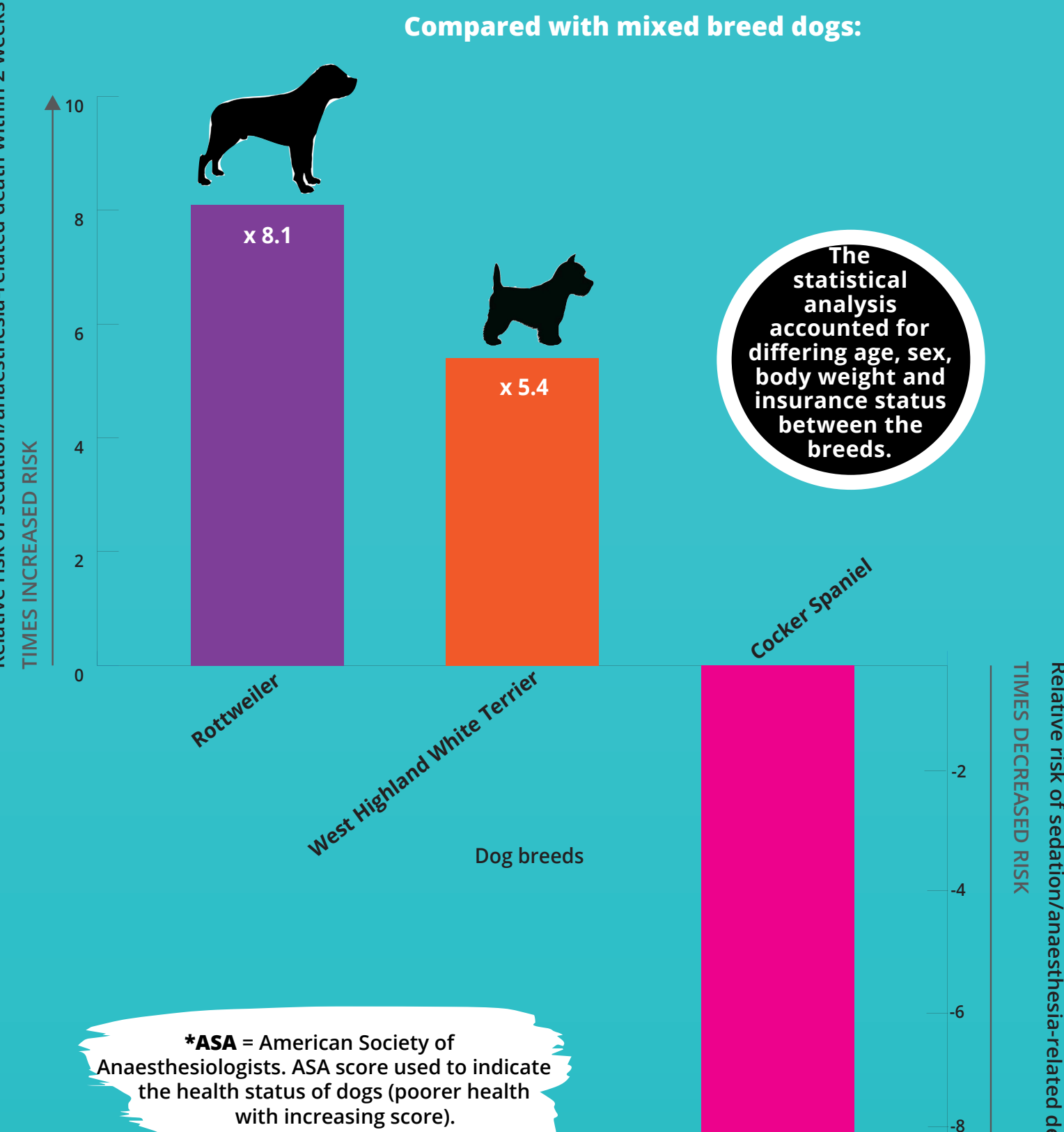
0.6 per 10,000 dogs died related to sedation/ anaesthesia within 48 hours of neuter surgery (0.006%)



1 per 10,000 dogs died related to sedation/ anaesthesia within 2 weeks of neuter surgery (0.009%)

Breeds at differing risk of sedation/ anaesthesia-related death

Compared with mixed breed dogs:



*ASA = American Society of Anaesthesiologists. ASA score used to indicate the health status of dogs (poorer health with increasing score).

Poorer health
Compared to dogs with ASA* scores of 1-2, dogs with ASA scores of 3-5 had 4.8-19.0 times the risk of sedation/ anaesthesia-related deaths.

Urgent procedure
Compared to dogs undergoing routine or elective surgery, dogs undergoing urgent procedures had 13.6 times the risk of sedation/anaesthesia-related deaths.

Dogs that were **older**, in **poorer health**, had **undergone an urgent procedure** or had a **long nose** were at **higher risk** of an sedation/anaesthesia-related death.

Older age
Compared with 0.5-1.5 year old dogs, 5.0-7.0 year old (x 4.9), 7.0-9.0 year old (x 4.9) and >9.0 year old (x 12.8) dogs had increased risk of sedation/ anaesthesia-related deaths.

Long nose
Compared with dogs, with medium length skulls, dogs with long skulls had 3.7 times the risk of sedation/ anaesthesia-related deaths.

Conclusions

The risk of death in dogs undergoing sedation/ anaesthesia is very low in the UK.

The risk of sedation/ anaesthesia-related death for neuter surgery is particularly low.

These results help shared decision making between owners and veterinarians for procedures which require sedation or anaesthesia.

[CLICK TO READ THE FULL STUDY](#)

Shoop-Worrall et al. (2022) "Mortality related to General Anaesthesia and Sedation in Dogs under UK Primary Veterinary Care" Veterinary Anaesthesia and Analgesia

RVC VetCompass <https://www.rvc.ac.uk/vetcompass> carries out welfare research based on anonymised clinical information shared from over 30% of UK veterinary practices. We are very grateful to the owners and veterinary professionals who contribute to VetCompass research.