The cranial cruciate ligament (CCL) is located in a dog’s knee (stifle joint) and is similar to the anterior cruciate ligament (ACL) in humans. The ligament can weaken over time until it eventually ruptures, causing pain and associated limping. CCL rupture can be treated either surgically or non-surgically. Many dogs with CCL rupture end up with long-term osteoarthritis.

This study aimed to identify factors associated with CCL rupture diagnosis in dogs.

**Breed risk of CCL rupture**

- **Breed with the highest risk of CCL rupture compared to crossbred dogs overall**
  - Rottweiler
  - Bichon Frise
  - West Highland White Terrier
  - Golden Retriever
  - Yorkshire Terrier
  - Jack Russell Terrier

- **Breed with the lowest risk of CCL rupture compared to crossbred dogs overall**
  - Labrador Retriever
  - Cocker Spaniel
  - Border Collie
  - French Bulldog
  - German Shepherd Dog
  - Shih-tzu
  - Chihuahua
  - Cockapoo

**Female neutered and male neutered dogs** had 1.5x and 1.4x the risk of CCL rupture diagnosis respectively compared with female entire dogs.

**Female neutered and male neutered dogs** had 3.2x the risk of CCL rupture diagnosis compared with dogs aged under 3 years.

**Bodyweight was not associated with risk of CCL rupture diagnosis.**

**Male neutered dogs** aged 6 to 9 years had 1.5x the risk of CCL rupture diagnosis compared with dogs aged under 3 years.

**Conclusions**

- It is important to seek veterinary attention if you consider that your dog may have cruciate rupture.
- These results can help owners of high-risk breeds such as Rottweiler and Bichon Frise to understand that sudden lameness in a hindleg could indicate a ruptured cruciate ligament.
- Absolute bodyweight was not associated with differing risk of CCL rupture diagnosis. Breed appears to be a major driving factor.

**Total number of dogs in the study**

- 1000 CCL rupture cases
- 500,000 non-CCL rupture dogs

**Average age of dogs in the study**

- 7.4 years (CCL rupture cases)
- 5.3 years (non-CCL rupture dogs)

**Dogs aged 6 to 9 years had 3.2x the risk of CCL rupture diagnosis compared with dogs aged under 3 years.**

**Dog breeds**

- Rottweiler
- Bichon Frise
- West Highland White Terrier
- Golden Retriever
- Yorkshire Terrier
- Jack Russell Terrier
- Labrador Retriever
- Cocker Spaniel
- Border Collie
- French Bulldog
- German Shepherd Dog
- Shih-tzu
- Chihuahua
- Cockapoo

**Click to read the full study**

Pegram et al. (2023) “Risk factors for unilateral cranial cruciate ligament rupture diagnosis and for clinical management in dogs under primary veterinary care in the UK”