

# Vertebral heart score

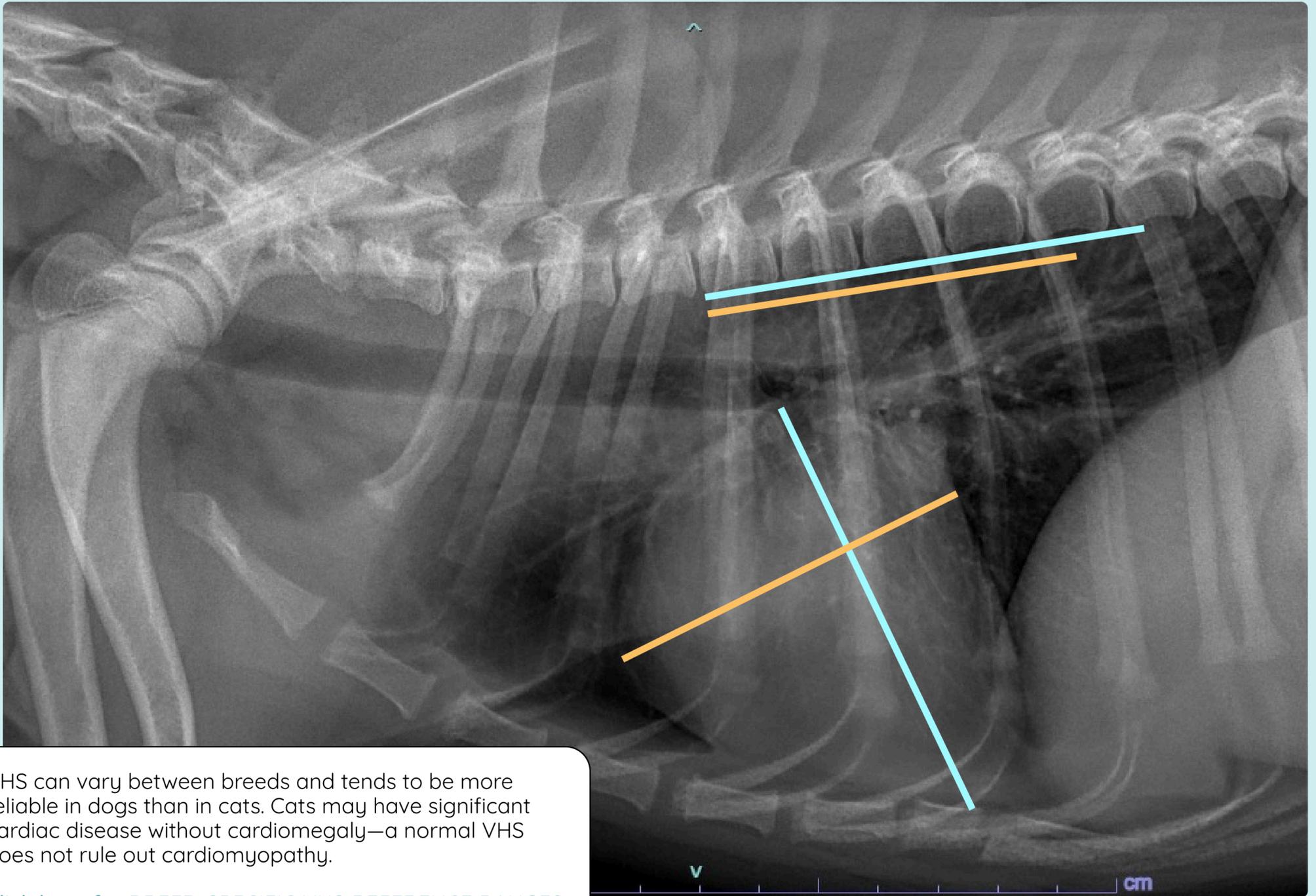


Vertebral Heart Size

Vertebral Heart System

Vertebral Scale System

# Vertebral Heart Score (VHS)



VHS can vary between breeds and tends to be more reliable in dogs than in cats. Cats may have significant cardiac disease without cardiomegaly—a normal VHS does not rule out cardiomyopathy.

[Click here for BREED-SPECIFIC VHS REFERENCE RANGES](#)

VHS	CATS	DOGS
Normal	< $7.5 \pm 0.3$ vertebrae	< $9.7 \pm 0.5$ vertebrae
Enlarged	> 8	> 10.5

# How to measure the VHS

VHS should be measured on a good quality lateral inspiratory radiograph where T4-T12 can be visualised and where there is minimal rotation (rib arches are parallel and costochondral junctions are aligned)

## 01.

Measure the length of the cardiac silhouette from the ventral border of the left main stem bronchus (carina) to the apex of the cardiac silhouette.

## 02.

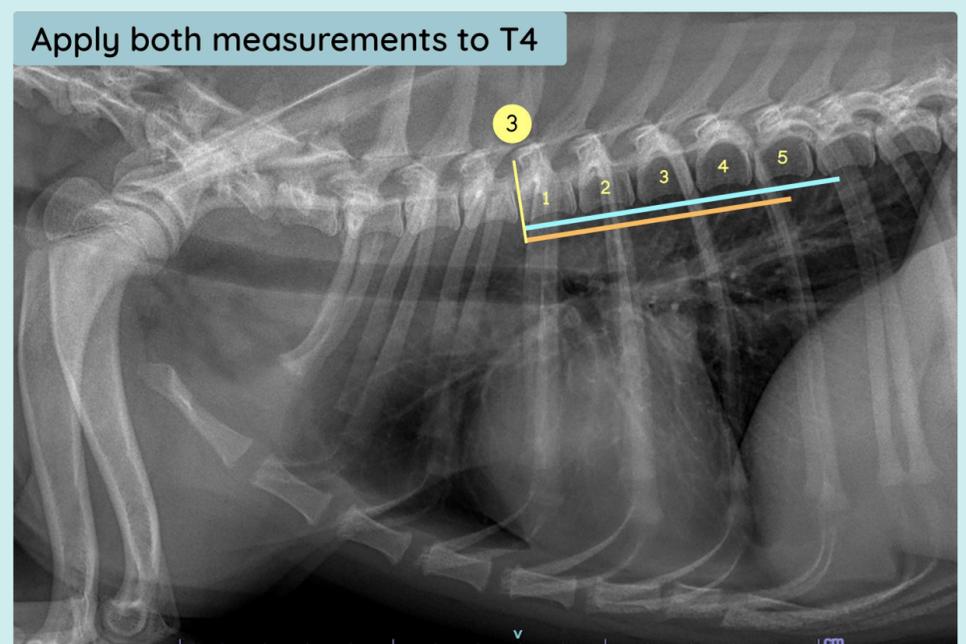
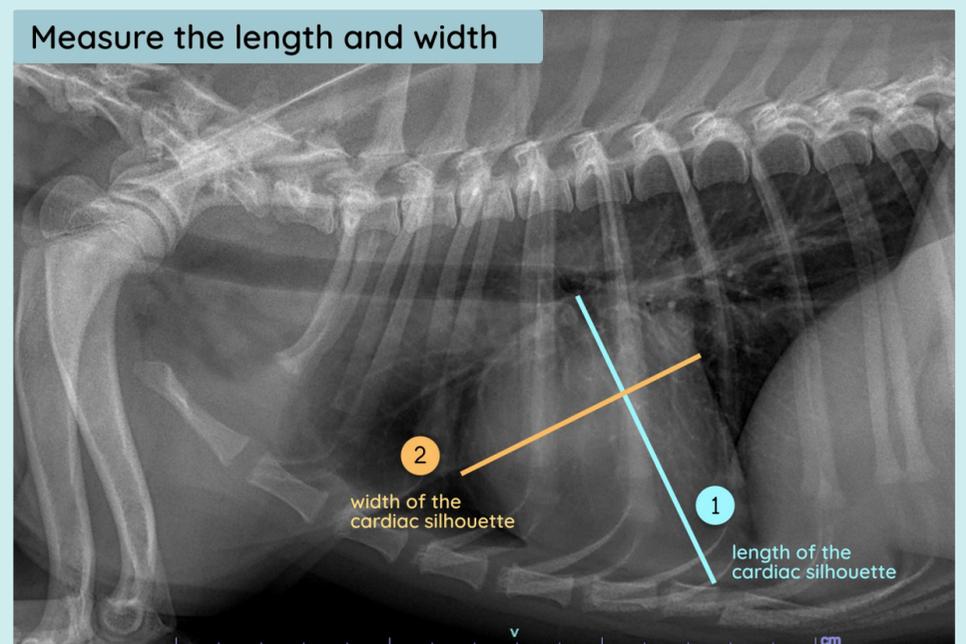
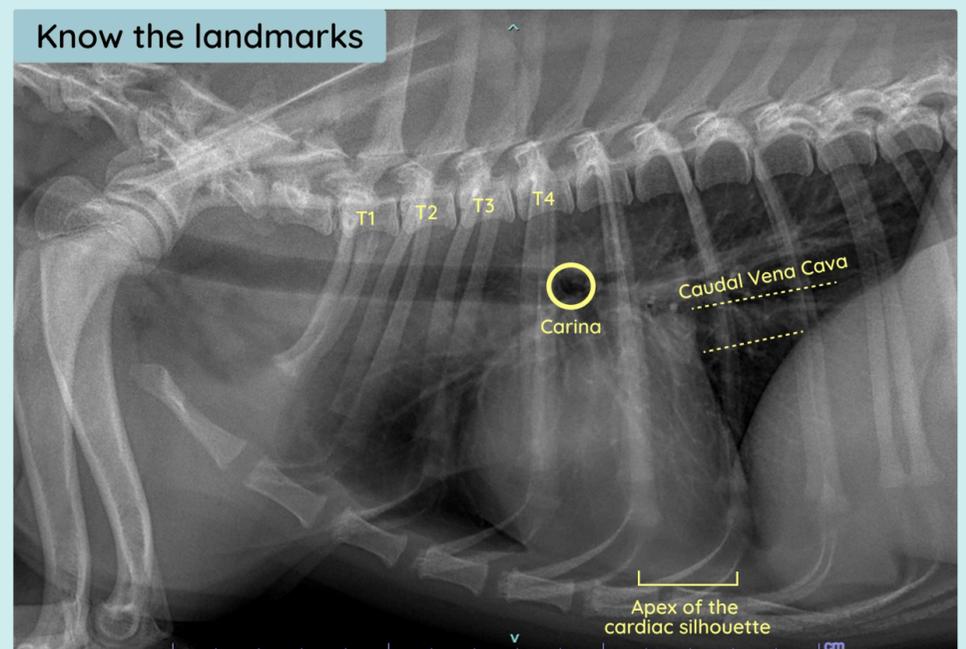
Measure the width of the cardiac silhouette, perpendicular to measurement 1 at the point of maximum cardiac width, usually at the level of the ventral border of the caudal vena cava.

## 03.

Apply both measurements to the 4th thoracic vertebrae (T4) caudally.

## 04.

Count the number of vertebrae for each measurement to the closest 0.1 vertebrae. Add them together to calculate the VHS.



# References

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