

CVS2 Addendum 2: COMPARATIVE ANATOMY OF THE HEART

HEART	HORSE	COW	SHEEP	PIG	DOG	CAT
Weight	Average 3.4kg 0.6-0.7% of body weight, but in trained Thoroughbred can be 1.1% body weight	Average 2.2kg 0.4 - 0.5% body weight	Average 220 -240g 0.4% body weight	Average 250g 0.3 - 0.35% body weight	Average 30 - 450g 0.8 - 1.4% body weight Upper range applies to trained Greyhound	Usually about 0.5% body weight
Shape	Irregularly flattened cone with a relatively large base and a blunt apex	A narrow cone that is relatively longer than the horse with a shorter base	Apex is more or less pointed than cow	Broad, short and blunt	Barrel-chested breeds: ovoid with a round apex; in deep-chested breeds: like ruminants	Less clearly conical, almost globular
Origin of right interventricular artery	Right coronary a.	Left coronary a.	Left coronary a.	Right coronary a.	Left coronary a.	Variable
Os cordis	Absent	2 ossa cordis	1 os cordis	Absent	Absent	Absent
Brachiocephalic trunk (BT)	Common origin from aorta for BT and left subclavian a.	Common origin from aorta for BT and left subclavian a.	Common origin from aorta for BT and left subclavian a.	Independent origin for BT and left subclavian artery	See Pig, but BT maybe divided into R. subclavian a. and bicarotid trunk	Independent origin for BT and left subclavian artery
Right & left Azygous veins	Right only present: drains into the cranial vena cava (CrVC)	Both present: right drains to CrVC and left to the coronary sinus	See cow	Left only present: drains into the coronary sinus	See horse	See horse
Pericardiac ligaments	Single midline sternopericardiac ligament	Paired sternopericardiac ligaments	Paired sternopericardiac ligaments	Phrenicopericardiac ligament	Phrenicopericardiac ligament	Phrenicopericardiac ligament
Fat	Soft, yellow and oily	Soft and yellow in Channel Island dairy breeds (Jersey, Guernsey etc) but beef breeds firm and white	Usually extensive and hard and white	Softer than sheep and white to cream in colour	Very little fat unless animal is obese then it is white and oily	Very little fat but if present white in colour