

Heart



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ERLER ZIMMER

Heart

This 3D model represents a 'normal' sized adult heart with light dissection to the epicardium to expose the coronary arteries and cardiac veins.

At the base of the heart, the terminal part of the superior vena cava and azygous vein can be observed just prior to draining into the right atrium. Immediately adjacent to the superior vena cava, the arch of the aorta has been preserved with the origins of the aortic arch derivative arteries. In slight contrast to the typical branching pattern, the brachiocephalic trunk includes both the right subclavian and right common carotids as well as the left common carotid. As a result, only two direct arterial branches can be observed – with the unusually joined brachiocephalic trunk and left subclavian arising before the descent of the thoracic aorta posterior to the pulmonary trunk. The pulmonary trunk and pulmonary arteries are preserved, including a robust ligamentum arteriosum connecting the left pulmonary artery to the aortic arch.

The removal of the epicardium has exposed the coronary arteries and branches across both the anterior and posterior aspects of the heart chambers. The right coronary artery can be seen descending from its origin at the ascending aorta, and wrapping posteriorly to approach the posterior interventricular sulcus. The origin of the left coronary artery is obscured by the auricle of the left atrium, but the branches from this artery – the anterior interventricular (left anterior descending), diagonal (passing deep into the myocardium) and the circumflex artery can be observed at the superior margin of the left ventricle. The anterior interventricular descends towards the apex with several branches passing deep into the myocardium, while the circumflex passes posteriorly and lies just superficial to a preserved portion of the great cardiac vein. On the posterior aspect, a well-defined coronary sinus is preserved to its termination at the right atrium near the inferior vena cava.



