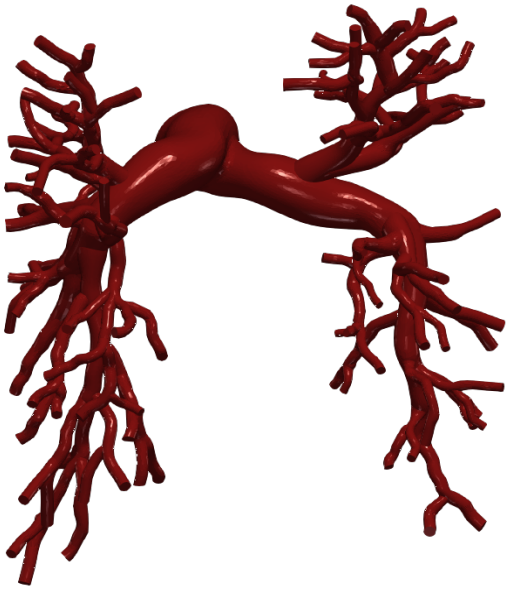
Vascular Model Repository Specifications Document



0079_H_PULM_H

Legacy Name: 0081_0001

Model added: 27 Dec 2021

Species	Human
Anatomy	Pulmonary
Disease	Healthy
Procedure	None

Clinical Significance and Background

Pulmonary

Pulmonary circulation involves blood flowing from the right ventricle of the heart into the pulmonary arteries. From the pulmonary arteries, the blood then reaches the lungs, performs a gas exchange, and then continues to the pulmonary veins which then lead to the left atrium of the heart.

By definition, an artery is a blood vessel that carries blood away from the heart. This usually means arteries carry oxygenated blood to the rest of the body, but since the pulmonary arteries are transporting blood from the right side of the heart to the lungs to perform respiration, that makes the pulmonary arteries the only arteries in the body that carry deoxygenated blood. Similarly, the pulmonary veins, which carry blood that has been freshly oxygenated from the lungs back to the heart, are the only veins that carry oxygenated blood.

Clinical Data

General Patient Data

Age (yrs)	51
Sex	Female

Specific Patient Data

BSA (m^2)	1.75

Notes

Paper patient ID "6". See paper for more details. See below for information on the image data.

Image Modality: MR

Image Type: VTI

Image Source: TLAB

Image Manufacturer: GE MEDICAL SYSTEMS

Publications

See the following publications which include the featured model for more details:

Tang, B. T., Fonte, T. A., Chan, F. P., Tsao, P. S., Feinstein, J. A., & Taylor, C. A. (2011). Three-dimensional hemodynamics in the human pulmonary arteries under resting and exercise conditions. Annals of biomedical engineering, 39(1), 347-358. https://www.doi.org/10.1007/s10439-010-0124-1

License