

Vascular Model Repository

Specifications Document



0051_H_CERE_H

Legacy Name: 0079_0001

Model added: 27 Dec 2021

Species	Human
Anatomy	Cerebral
Disease	Healthy
Procedure	None

Clinical Significance and Background

Cerebral

The cerebral arteries are involved in providing blood to the brain and the spine. They provide about 20% of the blood to the brain while the carotid arteries provide the other 80%. The two vertebral arteries start at the subclavian arteries near the collarbone and run up the left and right sides of the spinal column in the neck. At the base of the skull, the two vertebral arteries then merge into one artery called the basilar artery which is the main supply of blood to the brain stem and also supplies blood to the brain itself through the Circle of Willis.

Clinical Data

General Patient Data

Age (yrs)	25
Sex	Male

Notes

Paper patient ID "2". See [paper](#) for more details. See below for information on the image data.

Image Modality: MR

Image Type: VTI

Image Source: UCSD

Image Manufacturer: GE MEDICAL SYSTEMS

Publications

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

Bockman, M.D., Kansagra, A.P., Shadden, S.C. et al. Fluid Mechanics of Mixing in the Vertebrobasilar System: Comparison of Simulation and MRI. *Cardiovasc Eng Tech* 3, 450-461 (2012).

<https://www.doi.org/10.1007/s13239-012-0112-8>

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AND/OR

N.M. Wilson, A.K. Ortiz, and A.B. Johnson, "The Vascular Model Repository: A Public Resource of Medical Imaging Data and Blood Flow Simulation Results," J. Med. Devices 7(4), 040923 (Dec 05, 2013) doi:10.1115/1.4025983.

AND/OR

Reference the official website for this data: www.vascularmodel.com

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