CONQUER CHIARI®

From Knowledge, Strength. Through Research, Hope.

Chiari Anatomy

Most of the articles in the Conquer Chiari Research Updates are based on recent publications in the medical and scientific literature. However, it is also important for educated and empowered Chiari patients to have a broad understanding of a number of different topics, including human anatomy. Naturally, much the anatomical focus as related to Chiari concerns the cerebellum, the cerebellar tonsils, and the back part of the skull known as the posterior fossa. What some people may not realize is that many symptoms associated with Chiari can be traced to the brainstem and cranial nerves. The cranial nerves are 12 pairs of nerves that originate in the brain as opposed to the spinal cord (10 of the 12 start in the brainstem). The cranial nerves are responsible for a variety of functions including smell, eye control, chewing, swallowing, balance and more. The chart below indicates the name and general function of each cranial nerve. A quick review reveals how Chiari symptoms such as nystagmus, abnormal gag reflex, fullness in the ears, and others may at least partially arise from some type of damage to or pressure on one or more of the cranial nerves. It is important to note that some of these complex functions, such as balance, also involve the cerebellum as well.

CN Number	Name	General Function
I	Olfactory	Sense of smell
II	Optic	Convey visual information
III	Oculomotor	Eye movement; pupil constriction
IV	Trochlear	Eye movement
V	Trigeminal	Facial sensation; chewing
VI	Abducent	Eye movement
VII	Facial	Facial movement; taste; salivation
VIII	Vestibulocochlear	Balance and equilibrium; hearing
IX	Glossopharyngeal	Oral sensation; taste; gag reflex
X	Vagus	Swallowing; blood pressure; heart rate
XI	Accessory	Head and shoulder movement
XII	Hypoglossal	Tongue movement

SOURCE: *Gould, Douglas. (2014). Neuroanatomy – 5th Edition. Baltimore, MD: LWW.*