

Arnold-Chiari Malformation

Arnold-Chiari malformation [Chiari malformation (CM)] is a congenital defect at the base of the brain. The cerebellum (part of the brain which controls balance) and the brain stem (which controls respiratory and heart functions) are pushed down into the spinal canal. This herniation of the brain sometimes blocks the flow of fluid (cerebrospinal fluid (CSF)) leading to increase CSF pressure. This elevated pressure may cause enlarged brain ventricles (hydrocephaly) or syringomyelia (cavity or “syrinx” the cervical spinal cord). CM is often asymptomatic or it can present with headache and/or cerebellar problems, such as vertigo, imbalance, and incoordination. If syringomyelia is present, signs and symptoms depend on the severity of the spinal cord compression by a growing syrinx. There are four types. Type I CM is most common and least severe. It can be an incidental finding on a brain scan done for other reasons (such as migraine headache). Brain herniation is mild. Usually, there are no symptoms and no clinical findings. However, hydrocephalus and/or syringomyelia can occur with Type I. Type II CM causes more severe brain herniation, resulting in significant neurologic problems. Hydrocephalus and myelomeningocele (protuberance of membrane and spinal cord through a hole in the vertebral bone) are usually present (with or without syringomyelia). Type III and Type IV CM are most severe and rare. Due to considerable risk, preventive surgery is not indicated. Surgery is only done for symptomatic lesions. The goal of surgery is to decompress nerve tissue and restore the free flow of CSF. Surgical procedures vary but may include removal of the back of the skull and back of the first few neck vertebrae. This creates more space for the cerebellum and brainstem. A tube is sometimes placed in a syrinx to shunt fluid to the peritoneal or chest cavity. Surgery may or may not relieve symptoms and has not been shown to improve mortality. Surgery is unlikely to reverse severe neurological defects (e.g. paralysis), and such applicants are uninsurable.

If your client has had a diagnosis of Arnold Chiari malformation, please answer the following questions and send the most recent CT or MRI reports.

1. When was the diagnosis made? _____(date)

2. When was the surgery completed? _____(date)

3. Please note type of surgery:

Ventricular shunt Decompression or Other? _____

4. Have any of the following occurred?

Headache Yes No

Breathing problems Yes No

Paralysis Yes No

Dizziness/fainting Yes No
Muscle weakness Yes No

5. What are the current symptoms if any? _____

6. Is there a history of any other neurological conditions?

If yes, please give details

7. Is your client on any medications?

If yes, please give details

8. Has your client smoked cigarettes or any other form of tobacco in the last 5 years?

If yes, please give details _____

9. Does your client have any other major health problems (ex: cancer, etc.)? If yes, please give details
