



Chiari Academy Video Transcription

Chiari Bootcamp- Symptoms

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[Music]

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In this lesson we will cover what causes Chiari symptoms, the most common symptoms, the Chiari

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headache, the cognitive and psychological impact of Chiari and pediatric symptoms. One of the more

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complicated and confusing aspects of Chiari is that it can cause many different symptoms and for

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some patients it can seem like Chiari is impacting every part of their body. In addition, while some

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symptoms such as headaches are very common among Chiari patients Chiari affects everyone

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differently meaning for some people headaches are the worst issue but for others it may be balance

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problems. A 2004 study documented the wide variety of Chiari symptoms in dramatic fashion the

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research involved over 250 Chiari patients from as young as 12 to as old as 78. In all, 13 different

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symptoms were reported by at least half the patients and 95 percent of the patients reported

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five or more Chiari related symptoms. The reason behind the wide variety of Chiari's symptoms is

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that it can affect the brain and nervous system in several different ways these include: compression

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of the cerebellum, the cerebellum is primarily thought to be involved in voluntary movement

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balance coordination and walking. However recently the cerebellum has been found to be important for

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many higher order brain functions as well. In Chiari, the cerebellum is squeezed through the

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opening in the bottom of the skull which can impact its function compression of the brain

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stem. The brain stem is located at the top of the spinal cord and sits next to the cerebellum when

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the cerebellar tonsils are herniated they can push directly against the brain stem. The brain

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stem controls many automatic bodily functions such as breathing sleep heart rate internal body

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temperature and digestion and having something pushed against it can disrupt these important

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processes compression of cranial nerves. The cranial nerves are nerve fibers that originate in

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the brain stem and are involved in eye movement, hearing, facial sensation, swallowing and head

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and neck movement. With Chiari these nerves can get pinched causing them to not work properly.

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Disruption of the flow of cerebrospinal fluid, as we learned earlier, cerebrospinal fluid flows

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naturally back and forth between the Brain and Spine. However Chiari blocks this flow

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and basically clogs it the potential negative effects of this are not known damage to nerves

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in the spinal cord. Chiari can damage nerve roots in the spinal cord leading to chronic pain, loss

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of sensation and weakness in the arms, shoulders, hands and legs. Once you understand what Chiari

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can do to the nervous system it is easy to see why it can cause so many different and serious

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symptoms. With that in mind next we will focus on common Chiari symptoms. This diagram shows the 10

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most common Chiari symptoms among adults according to the Chiari 1000 patient database. Let's take

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a closer look at some of them. At the top of the list are headaches suffered by 95 percent

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of Chiari adults. As mentioned previously the classic Chiari headache is an intense pressure

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in the back of the head brought on by activities such as coughing, straining, singing, laughing,

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going upstairs and even standing up. However, some Chiari patients feel more pressure behind

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their eyes than in the back of the head and still others may suffer from headaches that are more

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like migraines in addition to or instead of the classic headache. It is worth noting that while

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the classic Chiari headache may not last long it is incredibly painful and can feel like your

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brain is being crushed or conversely like your head is going to explode. Just behind headaches

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in terms of frequency is neck and shoulder pain the nerves associated with the neck and shoulder

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are at the top of the spinal cord and can be damaged. In Chiari this can lead to chronic pain

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muscle atrophy and loss of function. In addition some Chiari patients may suffer from cervical

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instability in this area meaning that when they move their neck the vertebrae of the spine become

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misaligned which can also cause pain and other problems. Nerve damage to the neck and shoulders

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due to Chiari can lead to long-term problems and disabilities. With all that is happening

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with Chiari it might seem natural that it would be common for patients to have trouble sleeping but

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the Sleep issues associated with Chiari go deeper than that. Research has shown that sleep apnea,

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where breathing repeatedly stops and starts during sleep, is common with Chiari. In fact one sleep

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study found that 73 percent of adult patients and 60 percent of pediatric patients met the

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criteria to be diagnosed with sleep apnea. While more than 80 percent of adult patients report

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trouble sleeping formal sleep studies to identify apnea are not generally part of the Chiari testing

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regimen. One set of symptoms that are very common but don't get as much discussion are eye and ear

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problems visually Chiari patients can experience involuntary rapid eye movements and are often

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sensitive to bright lights. It is also common for Chiari patients to suffer from ringing in

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the ears, pressure in the ears, and sensitivity to loud noises. Relatedly Chiari patients often

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have balance issues. The human balance system also known as the vestibular system is complex

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and involves the eyes the inner ear the brain stem and the cerebellum Given that all of these can be

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compromised with Chiari it is not surprising that patients struggle with balance and walking and in

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fact research has shown that balance issues can be an objective indicator of Chiari. For

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many years despite patients talking over and over about suffering from brain fog. Cognitive issues

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associated with Chiari were not taken seriously by the medical community. However in the past several

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years research spearheaded by Conquer Chiari has shown through a series of projects involving

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Imaging and cognitive testing that Chiari can in fact have a significant impact on memory executive

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function and other critical thinking skills. Similarly the psychological effects of Chiari have

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only recently been explored but the mental health impact is profound. Conquer Chiari research has

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found that high levels of depression anxiety and loneliness are common with one researcher equating

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the situation to what is seen with post-traumatic stress disorder in fact fact research has shown

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that Chiari patients are at an increased risk of suicidal behaviors. Finally let's

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focus on pediatric symptoms. While children and adults share many Chiari symptoms there are some

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differences in which ones are the most common. For example young children under the age of six

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often suffer from throat related issues such as trouble swallowing, gagging, reflux, hoarseness,

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chronic cough and failure to gain weight. Among older children scoliosis and abnormal curvature

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of the spine is often seen. In association with Chiari while scoliosis among adolescents is a

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common finding in general Chiari patients often have unusual curve patterns which are

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indicative of an underlying neurological issue. When it comes to what first concerned parents

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about their child both seizures and developmental delays have been reported as the primary reason

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they started looking for a diagnosis. Similarly parents of infants have reported head banging by

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their child was the first indication they had that something was wrong. In this lesson we

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learned that Chiari patients suffer from a wide array of symptoms and Chiari affects everyone

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differently. Symptoms can involve problems with the cerebellum, the brain stem, cranial nerves,

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spinal nerves, and disruption of the flow of cerebrospinal fluid. The most common symptom

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is headaches especially those in the back of the head caused by coughing or straining. Other

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common symptoms include neck and shoulder pain, sleep apnea, balance issues, vision problems and

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auditory issues. Recently Chiari has been shown to cause both cognitive and psychological problems.

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Throat issues are very common among young children while scoliosis is common among adolescents.