



**AUTISM, HEAD
BANGING AND OTHER
SELF-HARMING
BEHAVIOR**

**Autism Parenting
Magazine**

Autism, Head Banging and Other Self Harming Behavior

For children with autism spectrum disorder (ASD), head banging is a common way to self-soothe and communicate needs. Both neurotypical and autistic babies and toddlers seek to recreate the rhythm that stimulated their vestibular system while in utero. Other rhythmic habits that fuel a child's kinesthetic drive include head rolling, body rocking, biting, and thumb sucking. According to Dr. Harvey Karp MD, rhythmic habits trigger the calming reflex in infants and toddlers. Many babies begin head banging around six months of age, but neurotypical children usually will not continue the behavior after the age of three.

According to [Noha F Minshawi, PhD](#), assistant professor of clinical psychology in clinical psychiatry at Riley Hospital for Children, "Children with autism spectrum disorders demonstrate self-injurious behaviors at high rates."

Minshawi also makes the distinction that self-injurious behaviors, such as head banging in those with autism, is usually classified as a "highly repetitive behavior (occurring at frequencies up to dozens of instances per minute)." She also notes that head banging can be episodic and triggered by the same stimuli or appear to start out of nowhere. Monitoring your child's activity closely and taking note of what happened right before head banging begins will be most helpful in determining any triggers. When a child diagnosed with autism head bangs past the age of two and a half or three, there is likely one of four things happening:

1. The child is in pain
2. The child is attempting to communicate
3. The child is attention seeking, or
4. The child is experiencing sensory overload or a sensory deficit.

Self harming behavior as a response to pain

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Many parents are confused as to why a child would inflict more pain via head banging if a child is already experiencing discomfort. Head banging serves as a distraction from the pain they are experiencing elsewhere or it may offer the child a sense of control.

If you discover that your child regularly uses head banging as a way to manage pain, you should speak with your pediatrician to develop a plan to manage your child's discomfort. This may include checking your child's body for cuts, bruises, redness, swelling, or other physical signs of injury. Working with a communication specialist to help your child develop new ways to show you where he/she is experiencing pain could be helpful as well. Some children are able to point to where they are feeling pain, draw a picture of what hurts, or communicate verbally using short phrases. Verbal children may need prompting to tell you where they are experiencing pain, as head banging may be their first instinct.

Head banging in an attempt to communicate

More often than not, if a child is head banging to gain a sense of control, a secondary reason may be that they are trying to communicate. Children who are nonverbal will seek ways to communicate, often through movement. If a child knows head banging will cause a caregiver to rush over and intervene, he/she is likely to use this to his/her advantage to help get needs met. This goes hand-in-hand with attention seeking.

Head banging to seek attention

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Children who head bang for attention may be experiencing a sensory overload or deficit, and in the moment, may be unable to otherwise communicate their needs. When children with autism experience a sensory overload, their neurotransmitters are unable to process the input their brains are receiving. Noise, visuals, and even smells and tastes that neurotypical individuals are able to tune out or may find pleasing can cause extreme discomfort and overwhelm children with autism. The sensation of head banging is one they can control and on which they can place their focus.

Self harm due to sensory overload or sensory deficit

Children who are under-stimulated, lonely, or bored may head bang as a way to stimulate their vestibular systems. They are able to provide themselves with their own sensory input by stimulating themselves in a way that feels good to them. Under-stimulated children may often seek attention by head-banging, even if they know they will not receive positive reinforcement.

Autistic children who are under-stimulated may respond well to a vibrating pillow, weighted blanket, gentle touch, or a well-secured bouncing chair, yoga ball chair, or rocking chair as a distraction from their desire to head bang. Providing your child with attention including positive reinforcement, appropriate activities, and options on how to spend his/her time, may help redirect a child who is head banging.

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Additionally, some children head bang as a part of a routine they have developed to prepare for sleep. Autistic children often find the repetitive movements tire and soothe them. Establishing a bedtime routine with your child that includes some form of exercise or kinesthetic movements may be helpful in preparing him/her for sleep. Stretching, yoga poses, leg flutters, or balancing on alternating legs are popular options.

Physiological reasons for head banging in autistic children

Stephen M. Edelson, PhD, has suggested physiological reasons autistic children head bang including biochemical and genetic factors. He says that research has found that neurotransmitter levels may be linked to head banging and other self-injurious behaviors.

Edelson writes, "Beta-endorphins are endogenous opiate-like substances in the brain, and self-injury may increase the production and/or the release of endorphins. As a result, the individual experiences an anesthesia-like effect and, ostensibly, he/she does not feel any pain while engaging in the behavior ([Sandman et al., 1983](#)). Furthermore, the release of endorphins may provide the individual with a euphoric-like feeling.

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“Nutritional and medical interventions can be implemented to normalize the person’s biochemistry; this, in turn, may reduce the severe behavior. Although drugs are often used to increase serotonin levels or to decrease dopamine levels, the Autism Research Institute in San Diego has received reports from thousands of parents who have given their son/daughter vitamin B6, calcium and/or DMG. These parents often observed rather dramatic reductions in, and, in some cases, elimination of self-injurious behavior. Parents have also reported reductions in severe behavior problems soon after placing their child on a restricted diet, such as a gluten/casein-free diet, or removing specific foods to which their child showed signs of an allergic reaction.”

While Edelson admits that researchers and medical professionals have not reached a clear consensus on whether dietary or even pharmaceutical interventions can reduce head banging in autistic children, he recommends exploring these options with your child’s pediatrician.

Can head banging cause brain damage?

In conjunction with figuring out why a child is head banging, parents often ask if their child will harm themselves or if head banging can cause permanent injury. Children under three years old will rarely cause long-term damage by head banging. Their heads are designed to handle impact from learning to walk and head banging will rarely cause more trauma than a slip and fall accident at this age. However, as children get older, they are at a higher risk for causing lasting damage.

Children who are strong enough to cause injury should receive a functional behavioral intervention to formulate a plan to replace head banging with healthy coping and communication strategies.

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“[Self-injurious] behaviors can be physically dangerous for the individual who is head-banging...; and self-injurious behavior is very concerning for their caregivers who want to keep these children safe. In order to implement a behavioral treatment plan for self-injurious behaviors, a functional behavioral assessment should be performed to help determine the environmental and/or internal factors that are maintaining the behaviors. This information is then used to inform behavioral interventions in order to preempt the causes or replace the unwanted behaviors with ones that are more acceptable,” writes Minshawi.

How can I protect my child from self-harm?

It can be terrifying to witness when a toddler hits himself in the head, but protective measures can be taken to ensure children do not self-injure. Some children respond well to resistance exercises including chin ups or lifting light weights. Tracking when your child head bangs and to what extent will be helpful in determining what level of pain he/she might experience after the episode.

Your pediatrician should be your primary source of information on how to best help a head banging child. He/she will be able to diagnose the extent to which your child could injure him/herself, help you identify why your child head bangs, and offer solutions and alternatives for your child. The Cleveland Clinic recommends consulting a doctor immediately if your child injures him/herself, leaves bumps or bruises, or if you think that the child is experiencing seizure activity. If you are unsure if your child is head banging due to a diagnosis of autism or if it is developmentally normal at this point, partner with your pediatrician. He/she will be able to provide resources and references to other professionals who can help including occupational therapists, behavior interventionists, or community support groups for parents.

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Can an autism helmet protect my child?

Providing your child with a medical helmet as prescribed by your pediatrician and padding areas of your home that your child typically head bangs, especially any corners or uneven surfaces, will reduce the risk of physical injury occurring.

Treatment for self injurious behavior in autism

Treatment for your child can take many forms and will most likely be a process of trial and error. In-home accommodations can be made to help an overstimulated child including providing them with noise-cancelling headphones, allowing him/her to rest in a low-lit or dark, tidy, monochromatic environment, or identifying a favorite piece of clothing. An occupational therapist (OT) can help you and your child identify coping mechanisms that will best substitute for head banging. Many children find sensory therapy with and OT to be helpful. Activities such as holding an ice cube, playing with kinetic sand, or even exposure therapy can reduce instances of head banging. Additionally, your child may benefit from yoga and rhythmic therapy in conjunction with routine sensory input under the guidance of an OT. Your pediatrician or insurance company can help you identify an OT in your area.

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