

FOOD INTOLERANCE NETWORK FACTSHEET

Head banging

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What is head banging?

Head banging is one of the childhood problems such as restless legs and hyperactivity that have increased dramatically since the introduction of processed foods in the 1960s in the USA and 1970s elsewhere. Although rarely mentioned in parenting books 30 years ago, head banging is now considered to be a normal childhood behaviour, estimated to affect up to 20% of healthy children in the USA, and 5-15% of children in Australia.

It is more common in boys than girls, and in children with autism. Toddlers usually bang their heads against their cot, but it can be walls, floors and other objects. Children who frequently engage in this behaviour can develop a bald spot or long lasting bruising as a result.

Paediatricians and psychologists generally suggest that head banging is an attention seeking or pleasurable repetitive behaviour and that parents should ignore it. Some children have to wear protective headgear to protect them from brain damage.

Head banging and foods

In our experience, head banging in both autistic and non-autistic children can be related to food chemicals. Children often start head banging around the end of their first year when they are introduced to a wider set of foods. Children aged three and under are unable to explain why they do it, although when they avoid certain food chemicals, their head banging stops.

Growing out of head banging

Children generally grow out of head banging by the age of three or four. This is because the smallest children are most vulnerable to the effects of food chemicals - the effects of food chemicals are related to dose, and dose for weight, children eat, drink and breathe more than adults. As they grow, their tolerance increases. In autistic children, extremely food sensitive children, or those with a high intake of processed foods, episodes of head banging may persist. Children who have exhibited head banging as toddlers are probably intolerant to other food chemicals with other symptoms as well.

Head banging and headaches or migraines

Although most children grow out of head banging at a young age, those who are still doing it when old enough to talk have reported banging their heads due to severe headaches.

Which colour is most often associated with head banging?

The FIN (Food Intolerance Network) register contains many reports of head banging in young children associated with artificial colours and especially annatto (yellow, natural colour 160b; annatto extracts; E160b). Many foods targeted at toddlers contain annatto, for example, yoghurts and Heinz Little Kids Apricot Flavoured Soft Fruit Bars for children aged 1-3 years. One mother who was already avoiding artificial colours reported that her two-year-old's head banging dropped from 10 episodes per day to only one within two days of avoiding annatto.

A twelve-year-old former head banger doing the failsafe diet for behaviour and learning problems reverted to banging his head repeatedly against a brick wall during his annatto challenge. After the episode, he was able to describe a headache so severe and overwhelming that banging his head seemed to be the only way to obtain relief.

Which foods should be avoided?

Preservatives, artificial flavours and other food chemicals can also cause head banging.

- Artificial colours
- Preservatives (sorbates, benzoates, sulphites, nitrates, propionates)
- Flavour enhancers (MSG 621 and others in the 600 range)
- Strong added flavours
- Natural colour Annatto 160b (from the seed coat of the tropical *Bixa Orellana* tree).

Annatto 160b is the most commonly used food colour in our food supply. It is found in a wide range of both healthy and junk foods.

- breakfast cereals
- yoghurt
- custard
- ice cream
- margarine
- crumbed or battered foods such as fish fingers or chicken nuggets
- biscuits
- dried apricot snacks
- other snack foods.

Parents often choose foods labeled 'all natural - no artificial colours, flavours or preservatives' unaware that they can contain natural colour annatto 160b which has been shown to affect more people than artificial colours. The reaction is likely to be more delayed than with artificial colours, which makes it even more difficult to identify. MSG and other flavour enhancers are also considered to be natural – although many consumers wouldn't agree – and can be present in foods labelled 'All Natural - no artificial flavours, colours or preservatives'.

A safe alternative to annatto

Betacarotene natural colour 160, as found in carrots, is a safe alternative to annatto natural yellow colour and artificial yellow. Although Australian food manufacturers say it is too difficult and expensive to use, betacarotene is used extensively as a colouring in Europe.

Readers' stories

[913] 160b: Jack's head banging and annatto (June 2010)

My son Jack, now aged 4, was a great baby, he slept 18 hours a day and was joy to be around except that he would not use his bowels for days and days. We took him to doctor after specialist after scan and no-one knew why. In the end the only way we could get him to use his bowels was to medicate him every day.

Also at about 6 months (at the time of introduction of solids) Jack started head-butting the cot. Honestly I am not exaggerating when I tell you that he had golf ball sized lumps on his forehead – again more scans, tests and drs. No-one knew why. The professionals told me to take him out of a cot and put him into a bed so he couldn't forward head-butt. Great Idea – he then proceeded to get out of bed and backward head-butt the wall. I have holes in the gyprock in the wall where he would head-butt his way through the gyprock. One night it was that hard the hinges in the door popped out. My neighbours could hear it and if I was on the phone people could hear it. It would mainly happen during the night or when he woke up from a day sleep. People told me he was hot, cold, tired, not stimulated enough, over stimulated, lonely blah blah blah.

I decided none of the professionals were helping so I decided one by one to withdraw foods from his diet. I started with dairy – I removed 95% of the dairy from his diet – I allowed him 1 cup of milk and 1 yoghurt a day and this showed a massive improvement, he would use his bowels without medication - it still required a lot of effort on his part but hey it was better than medication and the headbutting decreased. I took yoghurt off him and amazingly enough my happy little man returned. At the time I did not realise the importance of this find (that there was annatto in his favourite yoghurt).

One year later I gave him his favourite vanilla yoghurt with 160B in it and OH MY GOD!!!!!!!!!!!!!! He was up on all 4s rocking all night headbutting the pillow moaning and the next morning he woke up with a headache. We let it go a week and then we tried it with icecream and he was the same only this time he was reverse headbutting the wall like he used to do when he was a baby. – Nicolle, NSW

[912] 160b: Rash and head banging with bruises from annatto (June 2010)

From about 12 months of age, my son developed intermittent spots, rashes and blotches on his face and around his mouth. On 3 occasions he swelled up in the face, neck and hands (twice at daycare, once at home). We took him to an allergist who told us it was intolerances, gave us a list of additives to avoid, and told us he would outgrow it. The only additive that I could definitely identify at the time was 160b. Each time he ate it he would get develop a rash or tiny spots around his mouth and the blotches would return. Interestingly, at the same time, he also would bang his head in frustration on the floor. It was usually as part of a tantrum, he would drop to the floor and bang his head. He had a permanent bruise in the middle of his forehead for several months (see photo – it's really a bruise upon bruise upon bruise, from banging his head on the floor!) I cannot say for sure if the headbanging stopped at exactly the same time as we eliminated 160b, because I never associated them together, but am now thinking it was related.

As it turned out, the allergist was wrong and he did not outgrow his intolerances, they just manifested in a different way and he became a very difficult child around 2.5 years of age... At 3 years of age we went additive free for 6 weeks, and while this did help, it was not enough, so we have now been failsafe since Oct 2007. He is very sensitive to sals, sensitive to amines and cannot tolerate some additives. – by email, Vic

[911] 160b: Head banging stopped when additives were removed (June 2010)

My son is 2 and spent approx 18 mths headbanging. I can't say for sure, but it could possibly have been approx the time we removed 160b from his diet that he stopped. I removed 160b along with the other additives you recommend avoiding to help manage my son's behaviour. It has seemed to work very well. Adjusting his diet has made being a parent so much more enjoyable and I would like to thank you for this.

We removed the 160b (and all the other additives) approx 5 -6 months ago. We had a major relapse at Easter. This confirmed my suspicions and made my husband realise that the food additives did affect our child.

On looking back, our son stopped headbanging around this time, but I can't say whether it was as a result of the changed diet or not. I didn't realise until seeing your talk a few weeks ago, the headbanging could be related to 160b. The foods my son ate that contained 160b were cheese slices, margarine and yoghurt. I'm sure there would have been others, but these are the ones he ate every (or almost every) day. – Heather, by email

[910] 160b: Annatto related head banging in a 2 year old (June 2010)

My two year old daughter was banging her head about ten times per day. I was giving her 'no artificial colours, flavours, preservatives' yoghurt but I didn't know to avoid annatto. When I changed to a different brand (no annatto), she only had one episode of head banging in the next two days. – by email, NT

[909] 160b: Head banging in a 3 year old (June 2010)

I am a fan of your work and have been looking at the Head Banging information, I am going to make sure we avoid 160b because I think that causes my 3 year old son to do head banging. My son has been eating custard, yoghurt (I have switched to the Jalna brand this week), and ice cream (home ice-cream treasure troves, lots of colours in it, so stopped them). He would generally have custard or yoghurt in the morning and either ice-cream, custard or yoghurt around 5pm.

I have taken 160b out of his diet, which I will do for a few weeks and then re-introduce it to see what happens. His head banging can be to put him to sleep and during the night and very early in the morning, approx 5am. He banged his head in his cot, which was probably around the time he started eating solids, custard and baby yoghurt.

Since avoiding annatto and artificial colours his head banging incidents have lessened. He has had one head banging incident this week around 5am in the morning on Thursday morning so he may have had something at child care that caused it. They do have Yoplait yoghurt on alternate days, so they would have had it on Wednesday morning. – Caryn, by email

[908] 160b: irritability, defiance, head and body banging (June 2010)

We adopted our son from Russia two years ago (he is now three). He is sensory seeking and delayed in speech. We have only recently uncovered a link between his food and behavior, particularly with Annatto. It makes him hyper, sleepless, defiant, irritable, and a body banger against furniture (not limited to head banging), starting within 1-2 hours and lasting up to 24 hours.

Our son had been seeing an occupational therapist 2x's per month for sensory seeking behaviors. The OT recommended looking into a link between nutrition and behavior. We met with an allergist first. Her tests proved negative for protein allergies. She suggested that we start saving food labels any time we suspected reactions and compare them for common ingredients. The first food we noticed was Pepperidge Farm Cheddar Goldfish Crackers. Our son was very stimulated and not able to nap. I saw Annatto listed and wondered what it was. I did an internet search and found your website and others. The next time I saw a reaction, Annatto was in the peach yogurt I had fed him. On this particular day at naptime, he sat backwards in his rocking chair and banged it continually into the wall.

We started the Feingold program here in the U.S. and, as you probably know, it does not address Annatto so we eliminated Annatto as well. Our son's issues decreased within the first week. He was less hyper, more compliant, and able to sleep better, except for one noticeable withdrawal episode - his first on-the-floor kicking temper tantrum. My favorite result to cite is when I asked him to put books away. He answered "Okay, Mama" and did it right away. This is the sweet little boy who was there all along. I hate the idea that the foods I thought were good for him were causing him to misbehave and causing me frustration. We are happy to be Annatto-free now.

We are finding it hard to identify products with Annatto since it is not always stated by name or number in the ingredients list. We are learning to stay away from products with "natural flavors & colors" even if Feingold approved. There are many products that we have since cut out of his diet after discovering the Annatto link.

Changing our son's food and skin care products was easier than I ever imagined. He hardly notices, except for the times I have to say no to certain foods that do not have good things in them for him. It does take extra effort but it is well worth it. Still, I look forward to the day when the food-behavior link is widely accepted, forcing companies to eliminate these harmful additives from our supermarket shelves.
– by email, USA

[562] Yellow addiction (May 2007)

My son was restless from the day he was born. His paediatrician told me to not feed him dairy or wheat and suggested I feed him meat and vegetables and fruit for the first year of his life. When he was one, I decided to broaden his diet a bit and started feeding him vanilla ice cream. I didn't understand at the time, but he started throwing the most awful tantrums and head banging. He became obsessed with the colour yellow. He only wanted to wear yellow clothes, draw with yellow pencils and chose toys that were yellow. My friends constantly commented on his yellow addiction. I used to feed him corn and cheese omelettes for dinner with vanilla ice cream and banana for dessert. I'd mix the banana in thoroughly so the ice cream looked more yellow. It wasn't until 18 months later that I started learning about nasty food chemicals, and learned that annatto 160b natural yellow colouring was causing a lot of problems. When we got together with other mothers, he'd go straight for yellow food and always want yellow drinks. It was a bit of a joke really. He'd choose yellow lollies over other colours and when I asked him what colour he wanted his room painted, he of course said Yellow. I stopped allowing him food with 160b in it, but still let him have it when he went out. My friends thought I was over the top with food.

One day after meeting with my friends, and my son eating their yellow food, he went off the rails. I managed to get him into the car, (which is hard when they stiffen their bodies like a board) and drove him to my friend's house. He was screaming in his car seat, 'Let me out, let me out' and was struggling like crazy in his seat. We drove up her driveway and my friend said Oh my god, what's happened to Liam? I explained this is what happens when he eats bad food chemicals. It was only after this that she actually believed me. I then became strict and totally eliminated it from his diet. His headbanging stopped and his outrageous tantrums stopped also. I then realised that his obsession with yellow was caused from an addiction to yellow food. When I eliminated it from his diet, he began to choose other colours to wear. He'd choose other coloured lunchboxes, drink bottles and hats. I've never heard any other parent mention the colour phenomenon, but I still believe it was connected to his addiction to 160b. – Helen, NSW [For another report of colour addiction, see story

The mother of a child with autistic spectrum disorder described how her young son reacted to a children's colour-free paracetamol:

"He became incredibly agitated, head banging, aggressive, thrashing ... inconsolable... we rushed to the doctor (because we were to hop on an international flight the next day!) and he sent us off for urgent blood and urine tests. While waiting for the tests (about 3 hours later I think) my son suddenly regained his composure and became calm."

What you can do

1. For autistic children, go straight to step 5.
2. Read all ingredient labels.
3. Avoid artificial colours, annatto 160b and other nasty additives. The following items are examples of colour-free products:

- Sara Lee French Vanilla ice cream
- So Good Vanilla Bliss soy ice cream
- Vaalia natural but not vanilla yoghurt
- Jalna yoghurt
- Orgran custard powder

4. Avoid preservatives and artificial flavours in foods and children's medications (you can buy specially made additive free preparations from Compounding Pharmacists - not cheap - or ask for our children's paracetamol recipe – suedengate@ozemail.com.au).
5. Read my book [Fed Up: Understanding how food affects your child and what you can do about it](#), by Sue Dengate, Random House, 2008
6. If head banging persists: Consider a trial of the full elimination diet to find out exactly which food chemicals are causing your child's problem.
7. If you think your child's head banging is related to foods, tell us! (suedengate@ozemail.com.au)

www.fedup.com.au

The information given is not intended as medical advice. Always consult with your doctor for underlying illness. Before beginning dietary investigation, consult a dietician with an interest in food intolerance. You can find a supportive dietitian through the Dietitians Association of Australia www.daa.asn.au or write for our list of supportive dietitians (confoodnet@ozemail.com.au)

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