20 July 2023

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Senate Education and Employment Committees
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SENATE COMMITTEE: Barriers to consistent, timely and best practice assessment of attention deficit hyperactivity disorder (ADHD) and support services for people with ADHD

This submission is made July 2023 on behalf of the Food Intolerance Network, which consists of 20,737 current members (verify at https://www.facebook.com/groups/128458328536/members), mostly in Australia and New Zealand but with members in USA, UK, EU, Canada and several other countries and includes dietitians and other health professionals. The Network provides independent information about the effects of food on behaviour, health and learning in both children and adults through www.fedup.com.au which has had over 13.7 million visitors.

Responsibility for comments is taken by Howard Dengate BSc (Food Sci UNSW), PhD (Plant Sci LC), Cert Plant-based Nutrition (eCornell) and Sue Dengate BA (Psych UNSW) DipEd (Guidance UNSW). The support of Network members is acknowledged.

The major barrier which we see is that many symptoms diagnosed as ADHD are not distinguished from food intolerance symptoms which resemble them.

This is not best practice assessment or treatment.

Many of these symptoms can be reduced in a proven practical way for both children and adults. Support services exist in the form of hundreds of trained dietitians who understand the use of diet in this context.

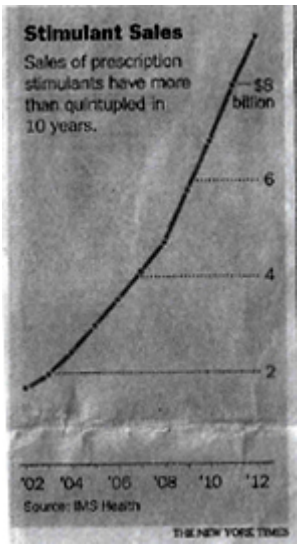
Here is the evidence, scientifically referenced and supported by practical reports from those who have used this approach successfully over many years. If you want to see dietary intervention in operation, see videos of entire classrooms in Appendix A.

Focus on ADHD and diet for both children and adults

A. Rise in cases reported and medication and no mention of diet

In the USA

Up to 16 percent of high school-age children have been diagnosed with ADHD (1). Sales of prescription stimulants more than quintupled in 10 years as shown from the fascinating article: [The Selling of Attention Deficit Disorder: the number of diagnoses soared amid a 20-year drug-marketing campaign](#) by Alan Schwarz, New York Times, 2013 (2)



At the time, Dr C. Keith Conners who had worked to raise awareness of ADHD in children for 50 years, described what was happening as ***"preposterous … giving out of medication at unprecedented and unjustifiable levels".***

In Australia

From 2019-2021, prescription rates for some ADHD medications have gone up an astounding 45 times! (3). It is not clear where the impetus has come from but there seems to have been a concerted and successful campaign, mainly by psychologists and psychiatrists, to make ADHD more visible. Given their scope of knowledge, diet is very rarely mentioned (4). This has raised the following concerns:

- **possible harms of over-diagnosis for children**

Luise Kazda, a researcher from the University of Sydney, writes that rising diagnoses of ADHD may be unnecessary or even harmful:

"During my daughter's challenging first year of school … she was the youngest in her class, placing her at higher risk of being diagnosed with ADHD … Our study concluded these children are unlikely to benefit from being labelled with ADHD and may, in fact, be harmed by it ." (5).

- **long waiting times and costs**

ADHD clinics charging up to $3000 a visit for adults (6).

- **serious long term risks of ADHD medications for adults**

These can include (7)
- Heart disease
- High blood pressure
- Seizure
- Irregular heartbeat
- Abuse and addiction
- Skin discolorations

A new study shows that non-ADHD people who use ADHD medications such as Ritalin can actually reduce their mental performance. These medications are not recommended for mild ADHD, only moderate to severe symptoms (8).

So … Why not try diet first???

Recent European studies show that diet works well for the majority of children with ADHD who do it properly (9). **This is a critical finding and confirms many previous studies.**

According to Dr Lidy Pelsser, senior researcher at the ADHD Research Centre in Eindhoven, Netherlands:

"In all children, we should start with diet research. If a child's behaviour doesn't change, then drugs may still be necessary. But now we are giving them all drugs, and I think that's a huge mistake." (10)

But consumers are very unlikely to get useful information about diet from any support organisations (11).

Brief reader reports from facebook threads "Did diet work for ADHD?"

Children

"Omg yes!!! This diet is a lifesaver!! We were on the school speed dial list before term finished, anger issues, couldn't control emotions, discipline of all degrees made no difference. 3 weeks on the diet and I have a different kid!! The days when I mess up accidentally I can tell and so can the school." – Madonna [1420]

Adults

"I have ADHD and while FS doesn't completely 'cure' it, my symptoms are much better and more manageable...amines make my ADHD, emotions, etc. much worse" - Jenny [1558]

B. Diet first for ADHD

See the Few Foods (Oligoantigenic) Diet working (Youtube 5mins)

Multiple studies published in the last three years around the world - in China (1), Turkey (2), Iran (3), Italy (4) and USA (5) - show that a diet high in processed food can increase ADHD symptoms.

Elimination diets to manage ADHD symptoms

USA - Feingold Diet

1976: Allergist Dr Ben Feingold was the first traditionally trained physician to recognise that the rise in childhood behaviour problems was associated with the increasing use of artificial food additives. His diet avoided additives and natural food chemicals called salicylates, and he claimed a 50% success rate (6).

Australia - RPAH Elimination Diet

1985: 61% of 140 children improved significantly in an open trial of the Royal Prince Alfred Hospital Elimination Diet that avoids food additives and a wider range of salicylates and other natural chemicals than the Feingold diet (7). A report from an ex-Feingolder:

> *"My daughter… has improved immensely since we started the (RPAH) diet. When I looked over her old diet (Dr Feingold's), I realise that it is really only halfway there, which explains why sometimes she reacted and sometimes she didn't"* - from [263]

England and Europe – Few Foods (Oligoantigenic) Diet

1985: 82% of 76 hyperactive children improved and 29% achieved normal behaviour on a trial of the Few Foods (oligoantigenic) diet in Great Ormond Street, Hospital, London (8).

2011: 64% of children diagnosed with ADHD showed significant improvement after 5 weeks on the Few Foods diet at the ADHD Research Centre in Einhoven, Netherland, and in **2021**,

behavioural changes after diet were associated with changes in brain function, seen in before-and-after functional MRIs (9).

2022: Over 30% of ADHD children were still doing well on diet alone, approximately 3.5 years after doing a 4 week Few Foods diet at Freiberg University in Germany (10).

Diet training for doctors?

According to Dr Lidy Pelsser, a senior researcher at the ADHD Research Centre in Eindhoven, Netherlands (12), changing a child's diet should be done with a doctor's supervision:

> **"We have got good news - that food is the main cause of ADHD. We've got bad news - that we have to train physicians to monitor this procedure because it cannot be done by a physician who is not trained**."

Despite evidence from all over the world showing that ADHD symptoms are related to diet, last year's Australian Evidence-based Clinical Guidelines for ADHD (13), prepared by doctors and psychiatrists, barely mentions diet, presumably because they have no training in diet. See more in blog Doctors and food intolerance

As Dr Feingold explained, the reason why he ignored the connection between diet and behaviour for 10 years :

> *"I was an allergist, not a behaviourist… such activity was not within the scope of the Allergy Department"* (14) .

Another possibility is that early industry-funded studies showed that diet didn't work, although it is now recognised that BigFood and BigPharma - funded studies are likely to be heavily biased in favour of the products they sell (15) and in 1989, Dr C Keith Conners who has been described as "the founding father of ADHD" wrote in in his book *Feeding the Brain* (16):

> *"I believe that the failure of some experiments to validate parent observations about food and behaviour is the fault of the studies, not the parents" .*

Health professionals who don't "believe…"

Award-winning dietitian Joy Anderson wrote in the June 2013 issue of the Medical Journal of Australia Insight (17):

> *"As a dietitian who uses the RPAH Allergy Unit Elimination Diet in my everyday practice, I can assure you that it does work brilliantly in the majority of cases… it needs to be done properly ... The diet should be supervised by an Accredited Practising Dietitian with experience in food-chemical intolerances … I have many, many satisfied clients who were fobbed off by other health professionals in the past, because they didn't 'believe' in food-chemical intolerance."*

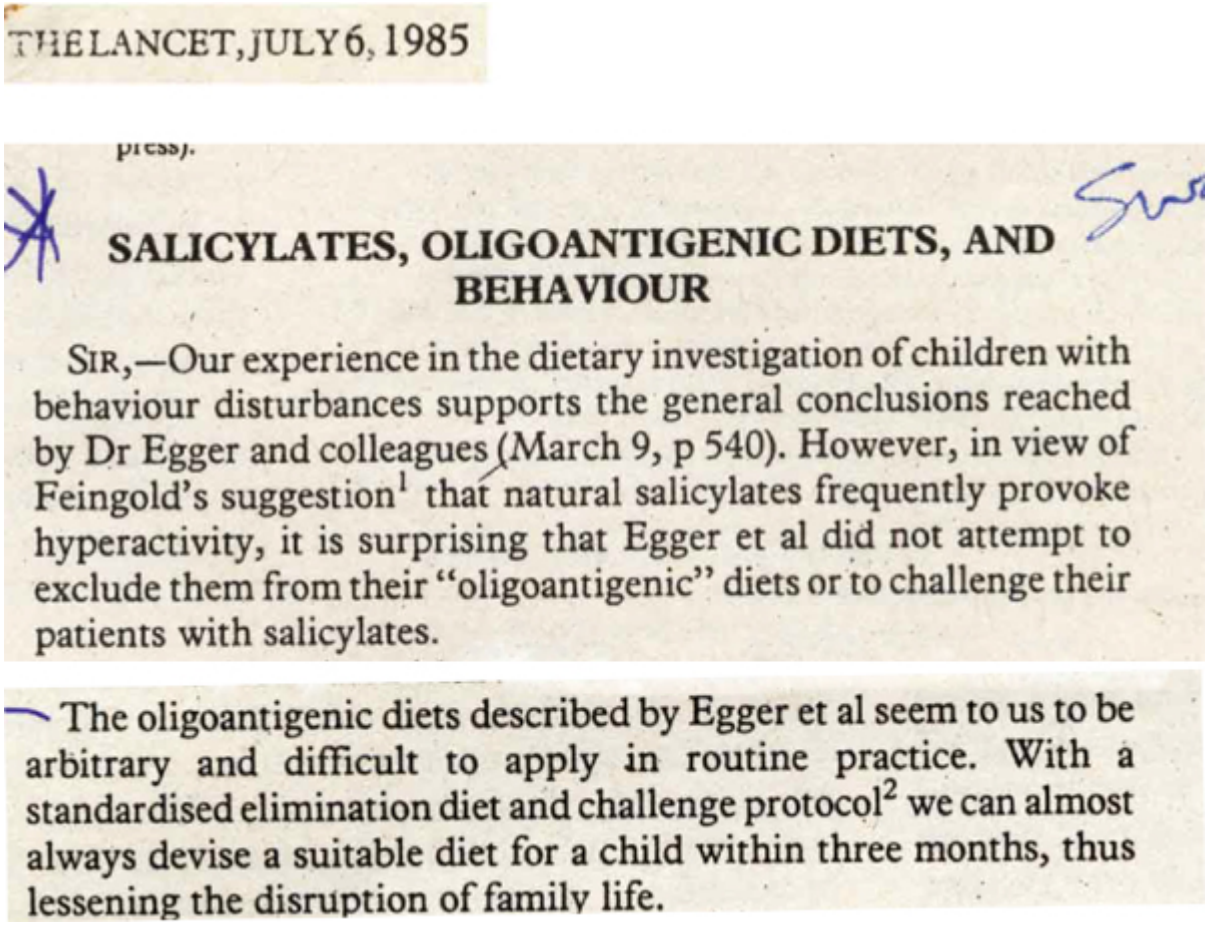
Evidence of effects on the brain

Two of the most recent studies have noted food effects on the brains of ADHD children (10) and young adults (5) which may provide plausible mechanisms. Other researchers suggest that the effects of petroleum-based artificial colours and other processed foods on the brain are important and should not be ignored (18).

The diet we support

The diet regarded as "the gold standard" in the European studies above is the Few Foods (Oligoantigenic) diet pioneered by Dr John Egger in England (8). However, in the experience of the Food Intolerance Network, the Few Foods diet that starts with rice, turkey, lettuce, pears and a few vegetables, is extremely difficult for families to use.

We support the RPAH Elimination Diet that achieves the same results and is easier to use.



THE LANCET, JULY 6, 1985

press).

SALICYLATES, OLIGOANTIGENIC DIETS, AND BEHAVIOUR

SIR,—Our experience in the dietary investigation of children with behaviour disturbances supports the general conclusions reached by Dr Egger and colleagues (March 9, p 540). However, in view of Feingold's suggestion[1] that natural salicylates frequently provoke hyperactivity, it is surprising that Egger et al did not attempt to exclude them from their "oligoantigenic" diets or to challenge their patients with salicylates.

The oligoantigenic diets described by Egger et al seem to us to be arbitrary and difficult to apply in routine practice. With a standardised elimination diet and challenge protocol[2] we can almost always devise a suitable diet for a child within three months, thus lessening the disruption of family life.

Reader reports

Children

> ***"Did Diet work for ADHD?*** *- Yes, had* ***huge results after first 2 weeks*** *of going baseline. Concentration, focus, calmness. The boys dad thought I had sedated him. Strict elimination…"* - Tracy [1503]

*"**My eldest son aged 8 is now excelling in school due to failsafe** - he previously had all the symptoms of inattentive ADHD - head in the clouds, extremely forgetful, vague … The biggest culprit … is salicylates. When we did the RPAH diet and salicylate challenge he fell asleep in the classroom at school and had to be taken home". –* Lindy [708]

*"Ten years ago the teachers and doctors wanted to medicate our daughter for ADHD ... Last year she graduated high school with one of the highest scores which guaranteed her entry into top universities. Everyone comments on how polite and engaging she is as a teenager. My advice to those starting the failsafe journey ... hang in there ... **the rewards are well worth the effort**."* – D [1179]

*"I am a primary school teacher … we have just recently begun failsafe eating after my six year old son's diagnosis (of ADHD … at a recent doctor's visit the GP looked at him sitting quietly and said, **"He doesn't have ADHD!""*** – Cara from story [926]

Adults

*"As a young girl, I grew up … struggling with the difficulties of ADHD and food intolerances…. (Since doing the diet as an adult) … **I have grown so much as a person in the last year, most people wouldn't recognise me** …"* [1414]

*"I have had extremely severe ADHD and Aspergers diagnosed from when I was six … I can honestly say that **since I first started this diet (one month ago), my life has been unrecognisably changed for the better** ... Before this diet I was surviving, and now I am genuinely, for the first time in my whole life, living life to the full"* – Ffion [1395]

C. How to do diet for ADHD

– thanks Jodie!

We support the Elimination and Challenge Diet developed and trialled on over 30,000 patients at Sydney's Royal Prince Alred Hospital (RPAH) Allergy Unit.

We highly recommend that this diet is used with a supportive and experienced dietitian. There are 100's in Australia - see list. For adults **and** children with ADHD!

These are the important factors:

1. Do it properly

"As a dietitian who uses the RPAH Allergy Unit Elimination Diet in my everyday practice, ***I can assure you that it does work brilliantly in the majority of cases****… it needs to be done properly…"* Joy Anderson, see more in our blog Why see a dietitian

"It's easier with the assistance of an RPAH trained Dietitian" – Samantha [1616]

"Pre-failsafe, my ADHD daughter was annoyingly hyperactive and inattentive. ***I was looking for one trigger****…"* - Rhonda [1528] (**NOTE:** most children react to between 2 and 5 challenges and delayed reactions mean you can't work it out for yourself) - see more of Rhonda's story below.

2. Avoid misdiagnosis/malnutrition

It is easy to misinterpret food reactions and people can end up avoiding nutritious foods unnecessarily.

"I've heard people say, 'I can't eat wheat,' for instance, when the real problem has turned out to be an additive, propionate, used to prevent bread going mouldy" - Dr Alan Barclay, see more

3. Get best results and tolerate more foods

"Thought I would let you know I am a lot better. Seeing RPAH Allergy Clinic directly made the difference and now I am having symptom free days..." see more

4. Smooth the way

"We have been to a dietitian from your list… It was great advice as it really smoothes the way when having to deal with doctors and other govt agencies" see more

Reader reports

Children

"Pre-failsafe, my ADHD daughter was annoyingly hyperactive and inattentive. I was looking for one trigger. What I learned was...

- *Salicylates make her vague*
- *Amines make her antagonistic*
- *Glutamates make her highs extra high and her lows extra low*
- *Colours make her silly but only last a few hours*
- *Antioxidants make her … an absolute pain in the neck … and it lasts for a week*
- *Nitrites stop her sleeping*

*… But **because the worst one - the antioxidants - lasted a week, I never connected** the small Maccas fries she had on Sunday to the crappy behaviour on Thursday, and **because amines took WEEKS to build up and was always there, there was no way I could have linked it** to aged meat and bananas … I know rpah (failsafe) elimination diet is huge and daunting and really inconvenient but it really is the best (the only?!) way of clearly connecting trigger foods with symptoms"* – Rhonda [1528]

*"**Did Diet work for ADHD?** - Yes, had **huge results after first 2 weeks of going baseline**. Concentration, focus, calmness. The boys dad thought I had sedated him. Strict elimination. MSG was huge problem"* - Tracy [1503]

*"We were told at nearly 5 that we would get an ADHD and ODD diagnosis and to read up about Ritalin -I never did instead **we went on the diet - changed after 2 days** - when we went back **the paediatrician was so amazed and said she could no longer give the diagnosis**…"* – Roxanne [1420]

*"My 5yr old has ADHD, **after 4wks on full elimination diet we definitely saw improvements in focus and sitting still.** Eg. from getting up from dining table 20+ times while having dinner to only getting up 2-5 times ... Sals made him return to previous non-focus behaviours"* – Lena [1616]

*"My daughter diagnosed with ADHD, severe anxiety and reacts really badly to high sals, artificial colours, dairy and wheat. **Definitely worth trying elimination process, it has helped us heaps**"* – Lucy [1612]

*"We did diet for explosive ADHD symptoms. It made a massive difference ... **I highly recommend going the whole hog and doing full elimination**. We tried just doing low and moderate and it didn't give us a clear enough picture of what the trigger/s were. I promise it's not as hard as it looks..."*. – Kat [1529]

Adults

*"I've had a patient I was seeing for gut issues who also had ADHD. She had an improvement & was **able to reduce medication**"* – Jo (a dietitian) [1558]

*"I did the elimination diet before being diagnosed with ADHD. I am sensitive to salicylates, amines, artificial colours, preservatives and antioxidants, mostly with behavioural reactions. Colours I react violently. **The diet helped a lot,** but the ADHD diagnosis and medication filled in the gaps and cleared the rest of the brain fog"* - Jay [1558]

*"…I started with my family about 25 years ago. It made a huge difference to all my children … **I found out that I reacted to everything that they did**, just not as strongly…"* - Jane [1503]

*"I've watched your fantastic DVD three times since receiving it. It has made me go back to the drawing board, **I think I missed salicylates earlier.** You might want to reconsider the title "Fed up with Children's Behaviour", it is not just about children I feel, and it is not just about behaviour either. It goes much further ."* Peter [1134]

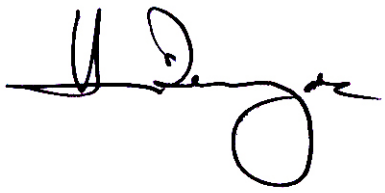
Why won't this Committee recommend this form of intervention?

- Because food additive regulators do not consider any evidence regarding behaviour or learning in approving the widespread use of food additives, or even require testing on children. Therefore regulators will not ban them, or support such an action.
- Because this form of intervention is seen as crossing too many disciplinary boundaries and so is too hard and beyond the scope, expertise and understanding of educators, psychologists and psychiatrists who run the ADHD industry, and the medical profession generally.
- Because you think that you have heard all this before and, incorrectly, that is has been discredited. It has not. Food industry lobbying and inaction has led to your pre-judgement about this proven cause of many ADHD symptoms.
- Because for policy makers such as yourselves, it is always more appealing to attempt to quash the symptoms than to undertake the more difficult task of addressing the causes.

So there it is. The Committee members have the answer in their hands.

What are the chances of this new information being heard, or effective intervention being attempted? There are huge countervailing pressures from the food industry and from the many narrow disciplines involved, so chances are not great. But a response like "more research is needed" is not acceptable. A serious trial of the approach would be.

Nevertheless we are willing to address the committee in person if you have sufficient interest AND a willingness to hear and act.



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PO Box 718, Woolgoolga NSW 2456 AUSTRALIA +61 2 6654 7500 confoodnet@ozemail.com.au www.fedup.com.au The Food Intolerance Network provides independent information about the effects of food on behaviour, health and learning in both children and adults, and support for families using a low-chemical elimination diet free of additives, low in salicylates, amines and flavour enhancers (FAILSAFE) for health, behaviour and learning problems. ABN 72 705 112 854

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11. Advice from support organisations, examples:

CHADD (Children and Adults with Attention-Deficit/Hyperactivity Disorder), the major USA-based organisation at https://chadd.org/ , provides information funded by the Centers for Disease Control and Prevention (CDC). They say "use fresh and healthy ingredients that are low in fat, sugar, and salt **without artificial ingredients and additives that can make ADHD symptoms worse for some people**. Eating healthy foods can make ADHD symptoms easier to manage". And "Research ... does not support the view that ADHD is caused by food additives or coloring. The research does show that these ingredients can make symptoms worse for some people affected by ADHD." See more Arnold LE, Lofthouse N, Hurt E. Artificial food colors and attention-deficit/hyperactivity symptoms: conclusions to dye for. Neurotherapeutics. 2012 Jul;9(3):599-609. doi: 10.1007/s13311-012-0133-x. PMID: 22864801; PMCID: PMC3441937. https://pubmed.ncbi.nlm.nih.gov/22864801/

ADHD Support Australia at https://www.adhdsupportaustralia.com.au/ is self-funded and has taken no funds from pharmaceutical companies. They support diet among other interventions https://www.adhdsupportaustralia.com.au/does-diet-affect-adhd/ and are rightly concerned about coeliac disease as a unrecognised cause. However they also promote and test without evidence for Pyrroles, Pyrroluria, Kryptopyrroles or Mauve factor and treat on that basis with high dose zinc and B6, supplements to remove excess copper, as well as other supplements. See detailed evidence about this issue https://www.fedup.com.au/information/frequently-asked-questions/symptom-questions#pyroluria

ADHD Foundation at https://adhdfoundation.org.au/ is an Australian national consumer not-for-profit organization registered as a charity. They support the use of the stimulant medications and say that ADHD "is not caused by diet, foot additives, refined sugar". Further that "treatments with little or no evidence for their effectiveness include dietary management, such as removal of sugar from the diet, high doses of vitamins, minerals, trace elements, or other popular health food remedies, long-term psychotherapy or psychoanalysis, biofeedback, play therapy, chiropractic treatment, or sensory-integration training, despite the widespread popularity of some of these treatment approaches". Evidence is provided by retired psychologist Dr Russell Barkley at https://www.russellbarkley.org/ , most recently 18 years ago. While they are a "wholly volunteer run organisation" revenue from donations and bequests (over $20,000 last year) is not otherwise detailed.

World Federation of ADHD at https://www.adhd-federation.org provides an ADHD Guide funded in part by pharmaceutical companies. The words 'food', 'diet' and 'additive' do not appear in this guide, in common with the focus on psychology and psychiatry in many other umbrella organisations lacking any knowledge of diet.

B. Diet first for ADHD

Diets high in processed foods a risk for ADHD

1. China

A case-control study with 102 ADHD children and 102 healthy children using a food frequency questionnaire (FFQ) found of five dietary patterns, the most processed pattern consisting of processed meat, fried food, puffed food, sugared beverages, and candies was associated with a risk of ADHD. Yan W, Lin S, Wu D, Shi Y, Dou L, Li X. Processed Food-Sweets Patterns and Related Behaviors with Attention Deficit Hyperactivity Disorder among Children: A Case-Control Study. Nutrients. 2023 Mar 2;15(5):1254. doi: 10.3390/nu15051254. PMID: 36904252; PMCID: PMC10005288. https://pubmed.ncbi.nlm.nih.gov/36904252/

2. Turkey

A study with 169 ADHD children aged 6-17 and 221 healthy controls used a FFQ Food consumption including 18 food containing processed meat products and snacks. Consumption amount of all snacks were positively correlated with ADHD symptom scores. Akin S, Gultekin F, Ekinci O, Kanik A, Ustundag B, Tunali BD, Al-Bayati MBA, Yasoz C. Processed meat products and snacks consumption in ADHD: A case-control study. North Clin Istanb. 2022 Jul 8;9(3):266-274. doi: 10.14744/nci.2021.64497. PMID: 36199857; PMCID: PMC9464840. https://pubmed.ncbi.nlm.nih.gov/36199857/

3. Iran

A case control study with 500 pre-school and school age children, identified 2 major dietary patterns The healthy dietary pattern was rich in fruits, vegetables, vegetable oils, whole grains, legumes, and dairy products. The Western pattern was rich in processed meat, red meat, pizza, eggs, snacks, animal fat, hydrogenated fat, and salt. Children in the top quintile of the Western dietary pattern score had greater odds having ADHD. Abbasi K, Beigrezai S, Ghiasvand R, Pourmasoumi M, Mahaki B. Dietary Patterns and Attention Deficit Hyperactivity Disorder Among Iranian Children: A Case-Control Study. J Am Coll Nutr. 2019 Jan;38(1):76-83. doi: 10.1080/07315724.2018.1473819. Epub 2018 Oct 11. PMID: 30307794. https://pubmed.ncbi.nlm.nih.gov/30307794/ AND

A case-control study with 120 newly diagnosed ADHD children and 240 controls, age 7-13 years. found that higher adherence to Mediterranean diet containing vegetables, legumes, fruits and nuts, grains, and fish could decrease the odds of ADHD in primary school children. Darabi Z, Vasmehjani AA, Darand M, Sangouni AA, Hosseinzadeh M. Adherence to Mediterranean diet and attention-deficit/hyperactivity disorder in children: A case control study. Clin Nutr ESPEN. 2022 Feb;47:346-350. doi: 10.1016/j.clnesp.2021.11.014. Epub 2021 Nov 15. PMID: 35063225. https://pubmed.ncbi.nlm.nih.gov/35063225/

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Elimination diets

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Few Foods (Oligoantigenic) diet

England

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Netherlands

9. 2011 Pelsser LM, Frankena K, Toorman J, Savelkoul HF, Dubois AE, Pereira RR, Haagen TA, Rommelse NN, Buitelaar JK. Effects of a restricted elimination diet on the behaviour of children with attention-deficit hyperactivity disorder (INCA study): a randomised controlled trial. Lancet. 2011 Feb 5;377(9764):494-503. doi: 10.1016/S0140-6736(10)62227-1. PMID: 21296237. https://pubmed.ncbi.nlm.nih.gov/21296237/

10. 2021 *"Behavioural changes after diet were associated with changes in brain function, seen in before-and-after functional MRIs"* Hontelez S, Stobernack T, Pelsser LM, van Baarlen P, Frankena K, Groefsema MM, Kleerebezem M, Rodrigues Pereira R, Postma EM, Smeets PAM, Stopyra MA, Zwiers MP, Aarts E. Correlation between brain function and ADHD symptom changes in children with ADHD following a few-foods diet: an open-label intervention trial. Sci Rep. 2021 Nov 12;11(1):22205. doi: 10.1038/s41598-021-01684-7. PMID: 34772996; PMCID: PMC8589974. https://pubmed.ncbi.nlm.nih.gov/34772996/

Germany

11. 2022 *"… ADHD symptoms and other clinical abnormalities can be improved by an oligoantigenic diet. It can be a treatment option for ADHD not only in the short term but also in the long term. Food intolerances are individual and the oligoantigenic diet is currently the gold standard to identify them. Personalized nutrition could be a valid tool for the personalized treatment of ADHD"*. Walz G, Blazynski N, Frey L, Schneider-Momm K, Clement HW, Rauh R, Schulz E, Biscaldi M, Clement C, Fleischhaker C. Long-Term Effects of an Oligoantigenic Diet in Children with Attention-Deficit/Hyperactivity Disorder (ADHD) on Core Symptomatology. Nutrients. 2022 Dec 1;14(23):5111. doi: 10.3390/nu14235111. PMID: 36501141; PMCID: PMC9737158. https://pubmed.ncbi.nlm.nih.gov/36501141/

12. Dr Pelsser's quotes from NPR Research News Study: Diet may help ADHD kids more than drugs http://www.npr.org/2011/03/12/134456594/study-diet-may-help-adhd-kids-more-than-drugs

13. "Tiniest mention of diet": Among 111 recommendations, under 4.1.1 Lifestyle changes in this $500,000 government-funded guideline : *"Clinicians should offer guidance on lifestyle factors to help people with ADHD, including … asking about diet and physical activity levels, and offering strategies and/or referral to assist with any challenges, if needed"* **Australian Evidence-Based Clinical Practice Guideline for ADHD** by Australian ADHD Professionals Association, 2022.
https://adhdguideline.aadpa.com.au/ https://adhdguideline.aadpa.com.au/wp-content/uploads/2022/10/ADHD-Clinical-Practice-Guide-Summary-of-Recommendations-031022.pdf

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15. Industry-funded studies didn't agree, Lisa Bero, Industry influence on research: A cycle of bias, 2022, Oxford University Press https://academic.oup.com/book/44473/chapter-abstract/376462402?redirectedFrom=fulltext

16. Dr C Keith Conners, Feeding the Brain, 1989 https://www.amazon.com/Feeding-Brain-Foods-Affect-Children/dp/0738206202

17. Joy Anderson, Medical Journal of Australia Insight , 2013, reference in Why see a dietitian

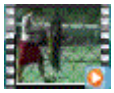
18. Effects on the brain

The following USA research suggests that “allowable heavy metal residues” in petroleum-based artificial colours and other ultra-processed foods may be contributing to the increasing rates of ADHD and autism in American children and should be further investigated. Lead author Dr Renee Dufault is a former food investigator for the FDA (Food and Drug Administration) and author of the book *Unsafe at Any Meal*, 2107, https://www.amazon.com/Unsafe-Any-Meal-About-Foods/dp/0757004369

Dufault RJ, Crider RA, Deth RC, Schnoll R, Gilbert SG, Lukiw WJ, Hitt AL. Higher rates of autism and attention deficit/hyperactivity disorder in American children: Are food quality issues impacting epigenetic inheritance? World J Clin Pediatr. 2023 Mar 9;12(2):25-37. doi: 10.5409/wjcp.v12.i2.25. PMID: 37034430; PMCID: PMC10075020. https://pubmed.ncbi.nlm.nih.gov/37034430/

APPENDIX A. Diet in operation

Please view these three short videos showing graphically the effects of food on children. These were large interventions we made at three separate schools, each with amazing results. Larger copies of the videos can be provided (1).

 https://youtu.be/5JVrFeosiNI (4:51)

Principal's quote: *"They were able to relate better to their peers in general and also to concentrate better in class which means that you're having fewer behavioural problems"*

Teacher 1 quote*: "It's just been much more harmonious in the classroom and that's had an effect on the classroom as a whole"*

Teacher 2 quote: *"…far more sociable, and amiable with each other and settled"*

Teacher 3 quote: "*I found that certain kids had a longer attention span, and they were able to concentrate and work more effectively"*

 https://youtu.be/K9KhjVLKRDo (3:07)

Principal's quote: *"Over this last week, we haven't had one student on detention. That speaks volumes for itself."*

Teacher quote: *"They listen to instructions better and they're not so impulsive… they think before they act".*

 https://www.youtube.com/watch?v=75knC_Zqwwo (3:25)

Teacher 1 quote: "…t*he more active students in the classroom - they've been more settled, definitely … I looked over* ***a sea of calmness****, it was wonderful"*

Teacher 2 quote*: "One student in particular that I had a lot of trouble with, a very fidgety child, couldn't focus, couldn't work, now sits quietly the whole time … reading a lot better, writing on the lines in his workbooks instead of all over the page and he's a lot more pleasant to be around and less disruptive in the class"*

The approach used is based on Sydney's Royal Prince Alfred Hospital Allergy Unit's elimination protocol tested on over 30,000 patients, avoiding approximately 60 additives they have identified that can affect children's behaviour

Even the National Healthy School Canteens Guidelines 2014 acknowledge that an unknown number of children are affected by these specific food additives (2) but the implications are not evident in current school canteen practice.

In fact, in 2003 when an entire class of six-year-olds were asked to avoid additive-free food at home and at school for two weeks, **more than half** of the parents reported an improvement in their child's behaviour (3). Similarly, an Australian pilot trial showed than more than half of school age children may be affected by these common food additives (4). More and more recent research confirms these effects (5).

If even half this number were disruptive in class, learning would be completely disrupted and blamed on ADHD (6). Diet would be an effective intervention.

Parents, teachers and students are very positive about this approach (7) – see some of their comments in the reference.

> **The appropriate educational and public health response would be to reduce the use of food additives that contribute to behavioural and physical disorders.**

What happens if you reduce food additives fed to children?

The largest study of its kind ever done (8) with over a million students at 803 New York schools showed that removal of additives from school meals was strongly associated with a reduction of learning disabilities and improved academic achievement.

> *"7.5% of a million children – 75,000 children – ... "had become able to perform at the level normal for their age. These were the children that no other efforts had helped".*
>
> *"No other school district could be located which reported such a large gain above the rest of the nation so quickly in a large population".*

The massive UK Southampton study (9) in 2007 found that a range of artificial colourings and a preservative could cause significant behavioural effects detectable by parents. Researchers concluded:

> "*normal, healthy children*" can be affected, not just in those with learning or behaviour problems.
>
> "*children's ability to benefit from schooling*" can be reduced by additives.

As a result, since 2010, many artificially coloured foods in the EU carry a mandatory warning which has virtually removed such food dyes from their food, **BUT THIS HAS NOT OCCURRED IN AUSTRALIA**:

> ***WARNING: "May have an adverse effect on activity and attention in children"***

The longest running study (10) was a five-year trial at Wisconsin's Appleton Central Alternative High School for troubled teenagers who were initially described as *"rude, obnoxious and ill-mannered"*. Designed by former parole officer Barbara Stitt and her biochemist husband Paul Stitt, the program replaced vending machines and junk food by bottled water, fresh juice and healthy preservative-free cafeteria meals and snacks.

> *"According to Principal LuAnn Coenen, negative behaviors such as vandalism, drug and weapons violations, dropout and expulsion rates, and suicide attempts are virtually non-existent."*

From the award winning documentary Super Size Me:

> *"…they've changed things around, not through discipline but through diet"*

 https://www.youtube.com/watch?v=Mm0XvU5rOOs (1:40)

But our kids eat a healthy diet!

Studies have shown that people eat far more food additives than they recognise because the food industry has responded to consumer concern by hiding them. The strongest example is that virtually everyone is eating the propionate bread preservatives 280-283 on a daily basis, even in foods labelled “no artificial preservatives”, because it now appears on the INGREDIENTS label as ‘cultured’ OR ‘fermented' AND ‘wheat/wheatflour/flour/whey/dextrose/etc, while claiming “no artificial preservatives”. Consumers have no idea this is the same preservative chemical, but now in unregulated amounts.

This matters because propionates have been proven to affect irritability, restlessness, inattention and sleep disturbance in children (11) and most recent research describes neurotoxicity of propionates linked to autism and dementia (12).

Here is the verbatim response from a 15 year old student (13):

> Mother: *"Do you find 282 [the bread preservative] affects you that badly?"*
>
> Teenager: *"HELL YEAH, I find a huge almost uncontrollable anger building up inside me, for no reason, and I feel I just want to punch something or someone.”*

And from a teacher (14)

> *"I used to get very angry quickly and then in a split second I would feel like crying my eyes out ... If the kids in my class were feeling like I was, I can understand why they behaved the way they did."*

References

1. Larger versions of the three videos can be provided.

2. See p45 of https://www.health.gov.au/resources/publications/national-healthy-school-canteens-guidelines-for-healthy-foods-and-drinks-supplied-in-school-canteens

3. 2003 – The Dingle School, Haslington, Cheshire, UK ¬ an entire class of 6-year-olds was asked to avoid additive-free food (39 additives) at home and at school for two weeks ¬ the trial was monitored by Professor Jim Stevenson from Southampton University and filmed by ITV ¬ ***“57 per cent of parents reported an improvement in their child's behaviour and 56 per cent recorded better sleep patterns and cooperation”***

4. How many children are affected by food additives? - a pilot trial. Dengate H, Dengate S, Watt M (2008). J Food Intolerance No 2.
https://fedup.com.au/images/stories/JFICoomaNorth2008.pdf

> **Abstract:** OBJECTIVE: To determine the proportion of children affected behaviourally or physically by 56 common food additives. METHOD: Behaviour and health were rated for 49 children who avoided food additives for two weeks and for 46 children who continued with their normal diet. RESULTS: Rating 14 behavioural symptoms, teachers reported that 69% of all children improved at the end of two weeks; parents reported that 53% improved. For children able to show improvement, teachers reported that 89% improved; parents reported that 59% improved. Parents observed that at least 25% of all children improved in sleeping, headaches, stomach aches, rashes or bedwetting by avoiding food additives for two weeks in a normal school setting. CONCLUSION: **More than half of school age children may be affected by common food additives.** IMPLICATIONS: The appropriate educational and public health response would be to reduce the use of food additives that contribute to behavioural and physical disorders.

5. Examples of 2022 papers:

Chronic exposure to synthetic food colorant Allura Red AC promotes susceptibility to experimental colitis via intestinal serotonin in mice
https://www.nature.com/articles/s41467-022-35309-y

A Review of the Association of Blue Food Coloring With Attention Deficit Hyperactivity Disorder Symptoms in Children https://www.ncbi.nlm.nih.gov/pmc/articles/PMC9573786/

Potential impacts of synthetic food dyes on activity and attention in children: a review of the human and animal evidence https://www.ncbi.nlm.nih.gov/pmc/articles/PMC9052604/

> **Abstract:** Concern that synthetic food dyes may impact behavior in children prompted a review by the California Office of Environmental Health Hazard Assessment (OEHHA). OEHHA conducted a systematic review of the epidemiologic research on synthetic food dyes and neurobehavioral outcomes in children with or without identified behavioral disorders (particularly attention and activity). We also conducted a search of the animal toxicology literature to identify studies of neurobehavioral effects in laboratory animals exposed to synthetic food dyes. Finally, we conducted a hazard characterization of the potential neurobehavioral impacts of food dye consumption. We identified 27 clinical trials of children exposed to synthetic food dyes in this review, of which 25 were challenge studies. All studies used a cross-over design and most were double blinded and the cross-over design was randomized. Sixteen (64%) out of 25 challenge studies identified some evidence of a positive association, and in 13 (52%) the association was statistically significant. These studies support a relationship between food dye exposure and adverse behavioral outcomes in children. Animal toxicology literature provides additional support for effects on behavior. Together, the human clinical trials and animal toxicology literature support an association between synthetic food dyes and behavioral impacts in children. **The current Food and Drug Administration (FDA) acceptable daily intakes are based on older studies that were not designed to assess the types of behavioral effects observed in children.** For four dyes where

adequate dose-response data from animal and human studies were available, comparisons of the effective doses in studies that measured behavioral or brain effects following exposure to synthetic food dyes indicate that the basis of the ADIs may not be adequate to protect neurobehavior in susceptible children. **There is a need to re-evaluate exposure in children and for additional research to provide a more complete database for establishing ADIs protective of neurobehavioral effects.**

6. According to the latest survey results from the PISA program for International Student Assessment

   - Australian school scores have plummeted globally (in maths, reading and science) over the last 18 years (see graph in reference)
   - New Zealand and Australian students now rank 27th and 29th of 79 countries for maths
   - 7 Asian countries are top, followed by many European countries with the UK at 18th.

   Experts can't explain this dramatic decline, or why UK for instance went up since 2010 in maths and reading - but it is pretty obvious to us that our food regulators FSANZ are to blame for not following the 2010 lead of the European food standards agency regarding artificial colours. EU countries are generally flat-lining, not declining, but they have always used few artificial colours. **Europe acts, Australia doesn't.**

   More in https://www.fedup.com.au/news/blog/food-colours-shame-on-you-fsanz

7. Parents, teachers and students are very positive about this approach:

   What the parents say

   *"**My son has been on the diet since year 1** and he is now in year 12 and is the best thing we could have done for him"* – Charlotte from story [1353]

   *"My failsafe son has gone from distracting others to being named **student of the week** for great work habits!* - from story [338]

   *"School principal took me aside and said how amazingly well my son is doing and that **whatever I am doing to keep it up because it's working**"* – Megan from story [1494]

   *"…**3 weeks on the diet and I have a different kid!!** The days when I mess up accidentally I can tell and so can the school"* – Madonna from story [1420]

   *"As a naturopath and nutritionist I thought I was conscious of what was healthy ...My son is now 14 yrs of age and thriving academically and socially… I sing the praises of Failsafe to parents far and wide…**My son has a future because of failsafe!**"* – Vicky [1625]

What the teachers say

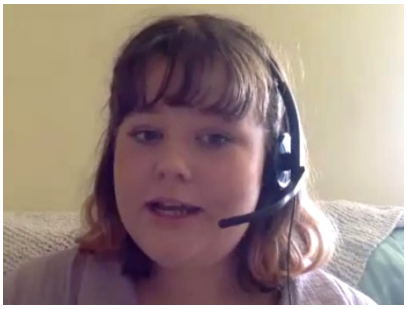
*"**I work as a teachers' aide in special schools** … the child that has a strict diet … **the child is a great deal calmer and easier for us to manage**"* – Sheree from story [1509]

*"**I am a teacher … I now recommend fedup** to as many people who will listen…"* – Penelope from story [1353]

***"I am one of the …principals** that actually recommend this diet ALL the time. I truly believe **it makes such a difference for kids' ability to focus, to persevere without too much frustration and emotional outbursts…**"* – Jen from story [1353]

What the students say

*"I am 18… **I'm currently in university**… I have ASD (Autism), GAD (Generalised Anxiety Disorder), ADHD and Depression… I have struggled all my life with food intolerances… I recently went back on failsafe because my symptoms were getting out of hand. **I have found massive improvements**…"* Jemma - [1594] **COURAGE AWARD**


9min 25secs

*"I am becoming progressively more organised… At uni I have been doing a lot more work than usual. I am feeling **a lot more settled and focused, and I am able to memorise things a lot easier than before the diet"*** – Ellas from story [023]

https://www.fedup.com.au/news/blog/diet-at-school

8. https://fedup.com.au/images/stories/NewYorkCityPublicSchools.pdf

   Schoenthaler, SJ, Doraz WE, Wakefield JA. 1986 – The Impact of a Low Food Additive and Sucrose Diet on Academic Performance in 803 New York City Public Schools, International Journal of Biosocial Research, Vol. 8(2): 185-195

   Schoenthaler, SJ, Doraz WE, Wakefield JA. 1986a – The Testing of Various Hypotheses as Explanations for the Gains in National Standardized Academic Test Scores in the 1978-1983 New York City Nutrition Policy Modification Project, International Journal of Biosocial Research, Vol. 8(2): 196-203

9. "Food additives exacerbate hyperactive behaviours (inattention, impulsivity, and overactivity) in children at least up to middle childhood. Increased hyperactivity is associated with the development of educational difficulties, especially in relation to reading, and

therefore these adverse effects could **affect the child's ability to benefit from the experience of schooling**. These findings show that adverse effects are not just seen in children with extreme hyperactivity (i.e., ADHD), but **can also be seen in the general population and across the range of severities of hyperactivity".**

Southampton study: Food additives and hyperactive behaviour in 3-year-old and 8/9-year-old children in the community: a randomised, double-blinded, placebo-controlled trial. https://pubmed.ncbi.nlm.nih.gov/17825405/

10. J Keeley et al, Case Study: Appleton Central Alternative Charter High School's Nutrition and Wellness Program, 2004 https://www.sustainlv.org/one/wp-content/uploads/Appleton-school-food-study.pdf

11. Dengate, S. and A. Ruben (2002). "Controlled trial of cumulative behavioural effects of a common bread preservative." J Paediatr Child Health 38(4): 373-6. https://pubmed.ncbi.nlm.nih.gov/12173999/

    Abstract: OBJECTIVE: Many anecdotes and one scientific report describe cumulative behavioural effects of bread preservative on children. METHODOLOGY: Twenty-seven children, whose behaviour improved significantly on the Royal Prince Alfred Hospital diet, which excludes food additives, natural salicylates, amines and glutamates, were challenged with calcium propionate (preservative code 282) or placebo through daily bread in a double-blind placebo-controlled crossover trial. RESULTS: Due to four placebo responders, there was no significant difference by ANOVA of weighted placebo and challenge Rowe Behaviour Rating Inventory means, but a statistically significant difference existed in the proportion of children whose behaviours 'worsened' with challenge (52%), compared to the proportion whose behaviour 'improved' with challenge (19%), relative to placebo (95% confidence intervals 14-60%). CONCLUSIONS: Irritability, restlessness, inattention and sleep disturbance in some children may be caused by a preservative in healthy foods consumed daily. Minimizing the concentrations added to processed foods would reduce adverse reactions. Testing for behavioural toxicity should be included in food additive safety evaluation https://www.ncbi.nlm.nih.gov/pubmed/12173999

12. See most recent references in https://www.fedup.com.au/news/blog/harm-from-bread-preservative-confirmed

13. [206] 282: A teenager talks about the bread preservative 282

14. [207] 282: " very moody, stressed out and anxious " (September 2002)