

**Restless Babies** by Sue Dengate *Reprinted with permission from the Summer 2001 newsletter of Nursing Mothers Association (now the Australian Breastfeeding Association).*

See below this for text of [More Restless Babies](#) by Sue Dengate *Reprinted with permission from the February 2008 Australian Breastfeeding Association's magazine Essence.*

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During the first three weeks of her life, baby Emily Ridden slept most of the time. She rarely cried, sometimes having to be woken for feeds and her weight gain was good. Then Emily started to have wakeful times during the night. Feeling tired, her mother Cindy relied on up to five cans of carbonated lemon drinks a day to give her energy. Emily's wakeful periods increased until soon she was sleeping only about eight hours total in a day. 'I kept trying to feed her to sleep but even if I could get her to sleep she would wake as soon as I tried to move her,' recalls her mother.

Cindy's lemon drinks contained an artificial yellow colour called tartrazine (code 102). Six years ago, medical researchers discovered that tartrazine can cause irritability, restlessness, inattention, difficulty settling to sleep and frequent night waking (Rowe KS and Rowe KL 1994). The more you have, the more likely you are to be affected. Young children, and especially babies, are the most vulnerable to the effects of food additives because, dose for weight, they take in greater amounts than adults. Food additives can be transmitted through breastmilk (Clarke L et al 1996). Unknown to Cindy, the soft drinks were making her baby restless and wakeful.

Cindy also noticed that Emily's bowel motions had become dark and frothy, 'like cappuccino'. This can also be an effect of food chemicals. Altogether, 50 additives (see box) and some natural chemicals have been associated with problems including stomach-aches, bloating, diarrhoea, reflux, itchy skin rashes, migraines, headaches, asthma, depression, anxiety, unexplained tiredness, forgetfulness, hyperactivity and recurrent mouth ulcers. No child reacts to food colouring alone, and it was to take Cindy the next 15 months to find out exactly which foods affected her daughter.

In the meantime, Cindy's doctor suggested that sugar might be contributing to Emily's 'cappuccino poos', so Cindy cut out the soft drinks. Emily improved, although she still woke frequently at night and never slept for more than 30 minutes at a time during the day.

Introduction of solids at nearly five months started a new round of problems. For the first time, Cindy heard her baby really scream. Episodes, which lasted for hours, were accompanied by back-arching. Cindy tried the usual foods, introduced one at a time - rice cereal, potato, pumpkin, apple, pear, chicken, lamb and vanilla yoghurt. During this time Emily was restless and woke often with occasional bouts of screaming. The night after her first mouthful of broccoli, Emily slept only ten minutes at a time, tossing and turning, screaming and arching her back all night.

Child health nurses, doctors and paediatricians all agreed that Emily was a healthy baby. Settling techniques learnt at a sleep management course helped but were not enough. If Emily was feeding well she would sleep well. Sometimes she would arch back off the breast and constantly wriggle and fidget while feeding. At these times she would sleep badly. There was no problem with supply or let down. Medication for reflux made Emily worse. Cindy wondered if her baby's behaviour might be caused by stomach aches associated with certain foods.

During the next six desperate months, Cindy gradually identified a number of seemingly unrelated foods eaten either by herself or Emily that could cause problems. But it didn't make sense. As well as medications containing artificial colours or flavours, Emily seemed to be affected by a number of healthy foods eaten either by her or her mother. Tomatoes and broccoli were the

worst. Eventually Cindy found a doctor who could interpret these reactions. Broccoli and tomatoes are very high in a number of food chemicals including salicylates. Cindy Ridden's daughter is one of an estimated ten per cent of the population who react to these natural chemicals.

Salicylates (sal-i-sill-ates) are one of many chemicals that all plants have developed to protect themselves. Most people are able to detoxify many of these poisonous chemicals. However, some common foods contain enough of these chemicals to cause reactions in sensitive people. Intolerance to aspirin, which is a form of salicylate, is well recognised. Yet most people are unaware that significant amounts of salicylates occur naturally in foods such as fruits, fruit juices, vegetables, herbs, spices, nuts, wines, tea and coffee. According to researchers at Sydney's Royal Prince Alfred Hospital, an average Australian diet may contain up to 100 mg of natural salicylate per day (Swain AR et al 1985). This quantity can easily trigger food intolerance symptoms in sensitive people. Salicylate intolerance is usually difficult to identify since salicylates are eaten so frequently.

Reactions to food chemicals are not true allergic reactions, so they cannot be confirmed by allergy testing. The only way to be certain of which food chemicals affect you is to try a strict elimination diet for three weeks, followed by careful reintroduction, or challenges, of certain food chemicals. This is to make sure that healthy foods are not avoided unnecessarily. Cindy was referred to a dietitian who started them both on the Simplified Elimination Diet from Royal Prince Alfred Hospital. When she and Emily began the elimination diet, Emily improved almost immediately.

Three days later, Emily worsened again. By now, Cindy had read my book *Fed Up* and, discouraged, she phoned me from Perth. We had a lot to talk about. Seventeen years ago, I lived through the same experiences with my daughter. The elimination diet was not available then. Food intolerance symptoms can change with age and for years we lived with Rachel's reactions, starting with colic, restlessness and wakefulness and progressing to oppositional defiance, learning difficulties and eventually a diagnosis of attention deficit disorder. Her younger brother suffered from headaches, stomach aches and skin rashes. When Rachel was 11, we all tried the elimination diet, and everyone in the family improved in different ways. Rachel sticks to her diet strictly and is now in her final year of school, happy and successful.

I have talked to thousands of parents who have struggled with the effects of food on their children's health or behaviour. I have experienced myself, and seen in others, that mothers who are using the elimination diet need support. They need information and child-friendly recipes, and need to be able check on little details because even one small mistake a day can ruin the effects of the diet. To help with this, I wrote *Fed Up* as a guide and support manual for parents, and established the Food Intolerance Network of Australia. We now have members from 12 countries. We publish regular newsletters, available free by email. These are displayed on the website with reader feedback and new information. Readers are welcome to ask questions by email and there is an email discussion group. Several food intolerance support groups have been established around Australia. Information about the elimination diet for management of food intolerance in children and adults was only published in the *Australian Journal of Nutrition and Dietetics* in 1996, so it is quite new.

If you suspect food intolerance in your breastfeeding baby, you might like to first try avoiding additives (see list of additives to avoid). Some people find that cutting down is enough. If you still have problems, especially if there are any relatives with food intolerance symptoms like migraine, then you might want to try the elimination diet. It is essential to be supervised by a dietitian. Your dietitian will give you two booklets from the Royal Prince Alfred Hospital. If your dietitian is supportive but inexperienced, she can refer your questions to the RPAH Allergy Unit, a group that acts as a resource for dietitians all over Australia.

Everyone is different and although some children improve within hours of starting the elimination diet, others can take longer. If there is no improvement at all within a week it is worth checking for mistakes with your dietitian. Sometime in the first two weeks, often on days four and five, symptoms worsen. These are withdrawal symptoms. These withdrawal symptoms are a good sign that the diet will work.

Eight weeks later, Cindy reports that Emily is waking only once a night. Emily can tolerate a wide range of additive-free foods including permitted fruit, vegetables, wheat, egg and sugar, but not dairy foods or salicylates. She's more settled and content than ever despite teething and as Cindy says, 'When she's happy, I'm happy'. Cindy's only regret is that she didn't know right at the beginning about food chemicals that could affect her baby.

### References

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Response from an Early Childhood Nurse to this article

### **[129] "I am an early childhood nurse ..." (November 2001)**

Our dear Rosie was born August 2000. She is our second child, so we expected that she would be a tad easier than her brother. Alas, our Rosie had many new tricks in store. For the first 4 months or so she was 'OK', I just called her 'highly strung', and 'a hormonal girl'.

By 5 months she was really quite miserable, irritable, constantly grizzling and wanting to be held (except of course when we went out anywhere, where she played the cute, smiley happy babe).

Sometimes she seemed to be in pain, and we gave panadol with some relief for only a short time. We tried the reflux, colic, etc avenues, with no improvement. My husband was very understanding and supportive, as he lived with unhappiness, and my Mum saw the other side of her, but most of my friends didn't understand our problem, as she really was a 'street angel and home devil'.

Her sleep was poor by day, but strangely, she rested reasonably overnight, some nights only waking once or twice, and generally able to resettle quite well. I think she was so exhausted after her strung out days. For the bad nights she mostly slept in our bed, where we could all get some sleep.

I am an early childhood nurse, and had great support from my two wonderful colleagues, one saw her in a really sad state when visiting us at home. We had tried me off all dairy products at 5½ months, as Rosie was fully breastfed. That seemed to improve things a bit, but I still felt that babies should be happy, unless they had good reason not to be. Finding the reason was the trick. We also tried a naturopath, who felt she could help with a range of herbal remedies, which we started on.

Then I read your article called "Restless Babies", in the Nursing Mothers Magazine. [See "Restless Babies" article on website]. I felt the article was about us!! It was the start of a big change in our lives. We saw our local dietitian who gave us the booklets from RPAH, and discussed it. As I was breastfeeding, and she was on some solids, Rosie and I started the elimination diet when she was 7 long months old.

My very supportive husband was quite sceptical, she was such a beautiful fat healthy looking babe, how could it be diet related?? Anyway after only 3 full days on the diet, he was very apologetic for his scepticism. Our little girl was significantly happier, and so were we.

Each day seemed to get better, she now seemed able to relax her body at times, and was able to play alone for very short periods. I found sticking to the diet quite easy, as the improvement in Rosie was well worth it. Eating was a great source of pleasure for Rosie, so the diet did not worry her at all. The added bonus for me was that those extra 'hard to shed' kgs fell off me. That gave me a needed confidence boost as well.

We had a bad experience early on. Rosie was pretty miserable with a cold, so we gave her some panadol drops and put some Vicks rub on a tissue under the sheet as we put her to bed. An hour later she woke and was 'high'. She tried to get back to sleep, but her body was so restless and I hate to think what her head felt like. I took her to our bed and held her to try to control her body for her. She finally fell off to sleep after about 4 hours.

Rosie is now 14 months old. I weaned her at 10 months, as I began to crave some tasty food. I was too scared to do any challenges, so we were on the very basics.

Rosie continues the elimination diet, and still loves her food. We finally tried some challenges, wheat is OK in very small doses. Salicylates were a disaster, (pumpkin twice a day for 2 days and a granny smith apple core), she became irritable, clingy, whingy etc, then vomited, with no associated illness. We will try them again one day to be sure. We are trying amines at present, just banana to start with, OK so far.

I feel this experience has been wonderful for me professionally, and my colleagues too. I also recently heard that our dietitian who helped me with the diet (who has since moved) has tried the diet to get a feel for what she was prescribing, and has seen changes in her family she was not expecting. I have also had chats and given some of your info to our child psychologist who has quite an interest in ADHD. I will keep pushing the cause, I worry about all these behaviour problems, and see that some could be so easily sorted with food.

So thank you so much Sue, I hate to think where our family would be without your big input. I am converted. My husband is too, but he is a little nervous about how I will go when our children start school and I have some input into the tuckshop! Many, many thanks again from all our family. - Cath, by email

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## **Tartrazine and breastfeeding**

Thank you so much for the "Restless Babies" article. I recommended it to a distraught mum via a breastfeeding support bulletin board. She was shocked to discover that tartrazine was hiding in many 'healthy' foods. Within just 2 days of changing her diet, her baby had a normal sleeping pattern. Not only that, but her 2 year old 'spirited kid' is much calmer, and has stopped throwing incessant tantrums.

Other board members have benefited from the article, including one mum who recognised the frothy 'cappuccino' poops mentioned. She had asked her pediatrician about it, but he had no idea what caused it. Changing her diet to exclude tartrazine cured both the frothy poops and the night waking.

Here are the foods that the mother in the USA was surprised to find tartrazine in: potato bread, yoghurt, canned soup, margarine and cough syrup. She was also eating, and feeding her 2 year old, cakes, cake mixes, donuts, muffins, snack cakes, ice-cream, cookies and crackers, drink mixes, lemonade, pudding mix, boxed meals, rice and pasta dishes, cheesecake, butterscotch candy, jelly and chips all containing tartrazine.

## Dani's diary

**Birth** - Chris is born nearly 2 months early. We stay in hospital until Chris is a month old. Staff regularly comment on the huge amount of crying he does and his restlessness. They put this down to a consequence of being prem and assure me he will be more normal and settled by the time he was due to be born.

**2 mths** - Chris doesn't settle - he gets worse, screaming and crying all the time all day and night. Regularly passes out from lack of oxygen. We try every colic remedy available - nothing helps. I even try giving him a range of formulas on the doctor's advice - none of these make any difference so after a few days on each I go back to breastfeeding.

**2 1/2 mths** - we notice Chris has a serious hernia and needs an emergency operation - his stomach is split right across and the muscles are trapping the arteries going to the testes - we hope no permanent damage is done - staff and doctors tell me it was probably caused as a result of the bad colic he has and him pushing in pain all the time. They assure me he will be a lot better when his stomach heals and should settle down - a bit of a contradiction but I go home and hope.

**3 1/2 mths** - I am totally exhausted and can not cope at all anymore - sick of the lack of support and everybody telling me that babies cry and I should just get over it. They all think I am a hypochondriac. I start colouring behaviour charts showing his screaming/crying/grizzling and sleep. I now know I am not exaggerating or pulling things out of proportion - the charts show he is worse than I thought. He is crying and screaming for about 18 hours out of 24. When he does sleep out of exhaustion it will be for one or two hours only - generally throughout the night. He rarely sleeps during daylight hours.

I ring my doctor in desperation. I am afraid I might hurt Chris if I don't get some sleep soon and get him sorted out. My doctor admits us to hospital. The staff take over Chris and I get to sleep. Staff are amazed at the amount Chris screams - at first they think it is just because he is away from me and home but I assure them he is the same at home. His crying continues non stop even after being in hospital over a week and in my arms a lot of the time. The doctor suggests we try the elimination diet. We see our local dietitian. I start the diet. The dietitian suggests we don't give Chris any solids for a while. I read somewhere that he shouldn't get them until he is about 7 to 8 months old.

**4 1/2 mths** Chris is getting a lot better. He isn't screaming near as much though is still crying a fair bit. We really notice it when I eat anything on the no go list - we have to cope with his screaming within 24 hours.

Chris's diarrhea is nowhere near as constant. He is now sleeping for 4 to 5 hour blocks at night and settling quickly after a feed and change. His body language now shows more tiredness rather than pain symptoms when he is upset. His reflux has disappeared.

**5 1/2 mths** My behaviour charts show that Chris is improving a lot. He is now crying more than screaming. He is slowly getting over all withdrawal symptoms of the many chemicals in the foods that I was eating that were affecting him. I still can't get him to sleep during the day. (The diet is not as effective as it should be because I am making salicylate mistakes like drinking way too much lemonade and eating lots of carrots and pumpkin - but I don't find that out for another 10 months.)

**7 1/2 mths** We start using management strategies to try to get Chris to sleep during the day. Our doctor thinks he can't sleep as he doesn't know how and is not in the habit. We succeed after a week and now Chris is sleeping for 2 hours in the morning and afternoon. We also introduce some solid foods. Chris's crying and grizzling improves hugely. He is now actually appearing to be really happy sometimes.

**12 mths** Chris weans himself and has been on Neocate ever since - other formulas such as soy cause instant unpleasant reactions - back to no sleep and crying a lot.

**14 mths** Chris goes off all carrots and pumpkin - makes it really hard for me to find foods to get him to eat as he eats a huge amount of each of these. We notice a big change in Chris - he stops grizzling altogether and is suddenly really easy to manage. He is a lot more agreeable!! Have a look through my books and discover that pumpkin and carrot are moderate in salicylates - I thought they were low!! No wonder he wasn't 100%. He was obviously getting too many salicylates!

**19 mths** Chris is now fantastic. We are really enjoying him. He reacts to all the things avoided on the elimination diet still so it is not much fun when we try challenges. We really pay for it - he reacts differently with different chemicals. Salicylates, preservatives and amines make him scream in pain and he gets diarrhea. Preservative 282 in bread is by far the worst - within 3 hours Chris is screaming in agony and has chronic diarrhea. When I was breastfeeding and ate 282 he would react within 12 hours. Colours make him really hyperactive, uncontrollable and he ends up getting hurt. - Dani Hewton, WA

## Rita's baby

We were doomed from the start when you look back on it.

I grew up on the Great Lakes in Canada. My father worked at Allied Chemical (located on the water) for 20 odd years. We ate fish that he caught in the Lakes two or three times a week. I remember tumours being common in these fish in the latter days. I do wonder what effect living in this environment and eating the fish has had on the situation I am presently in.

I used to be a hairstylist, but had to give it up due to reactions to colours, perms, allergy to latex gloves and sensitivity to customers' perfumes. I also have hayfever. My husband has asthma and seasonal allergies and his whole family has asthma.

From birth, our daughter never slept more than 40 minutes at a time, day or night, and by the second week she screamed most of the time. Nobody understood why she wouldn't "just fall asleep" in her pram or her crib or the car. She was seen by a quite a few doctors, midwives and early childcare nurses but no one did much except to label it reflux and say it would correct itself. Tresillian (mother and baby program) gave a different answer every time. A breastfeeding counsellor put me on a high salicylate diet (peppermint tea, wine, licorice - for relaxation) and told me to feed her around the clock. Needless to say she was totally out of sorts, crying all the time and inconsolable!

Then an early childcare nurse lent me a copy of *Fed Up* and sent me to a dietitian. I immediately started on the elimination diet. My baby calmed down in the beginning, but it wasn't a cure all. I was to the point of just eating rice, chicken and egg and trying to keep my milk supply up to breastfeed. When my baby started losing weight we went to RPAH and started on Neocate. It took a few weeks to wean her but once she was feeling better she accepted it.

Once she was settled we tried to slowly introduce foods from about 6 or 7 months. Except for a small amount of potato and chicken she reacted terribly to everything. She would wake all through the night screaming, refuse a nap and scream all day, refuse her formula and food in general. She was irritable, had loose bowels several times a day, and would be very aggressive.

I also try to stay away from all chemicals in the house for cleaning. She has had terrible reactions to paint fumes in the early days when I didn't realize how sensitive she was. We were trying to renovate our house, that's on hold for a long while.

I had never heard of this before. Allergies to nuts and things yes, but food intolerance and everything that goes along with it, no.

- Rita Mallet, NSW

## **Daniel's story**

From the minute Daniel was born, he was a very unsettled baby. We went home on day three and I expected he would improve when my milk came in. I work as a midwife, so I had some idea of sleepless nights etc, but nothing had prepared me for a baby who screamed constantly when awake and slept very little. My mum said I had been a very colicky baby and my mother-in-law said my husband David had been an extremely colicky baby - so we presumed Daniel was the same.

After three doses of mastitis, I put Daniel on the bottle at five weeks of age. He was just as unsettled on formula as on breast milk. He continued to have several loose green bowel actions a day. The next day we left for the U.K. - my husband David was transferred over there for what was meant to be five weeks but turned into three months. I think ignorance is bliss, when I look back and see myself taking a screaming six week old baby half way across the world to live in a shoe box hotel room. In the U.K. Daniel continued to be very irritable and unsettled. He posited after every feed and only very occasionally vomited. The only place he was happy was in the bath, so we bathed him four times a day some days to keep him quiet. When I look back on my diary of this time, he began interrupting his feeds at about 8 weeks of age. A normal night out for tea (we had no cooking facilities in our room) would be David that would walk out on the pavement with a screaming Daniel while I ate and then we would swap. I remember feeling physically sick myself some nights, he would scream so much.

We visited a doctor for Daniel's immunisations and I told her of his constant screaming - she told me it was colic and that it would improve by three months of age.

I started him on solids early in case he was hungry (rice cereal and tinned pumpkin) and changed to a formula for hungrier babies. He seemed better for a couple of days but then was just as bad.

When we arrived back in Australia I took Daniel to a local GP, the one I had seen as a child myself. Daniel was screaming and it was 11 am. This doctor gave me a lecture about colic (by this stage Daniel was four months old) and said, "how could there be anything wrong with a child that has such good weight gains?" I tried to explain that it was taking 1-2 hours to feed him a

bottle, but he just gave me a lecture on midwives not making any better mothers. He threw a referral at me for a paediatrician on the way out the door (I think only to cover himself).

I tried making an appointment with the paediatrician, but, being Christmas, there were none available for another month. So we continued to battle on and tried Daniel on a soy formula which seemed to help for a while, but then he just went back to square one. He got worse with this feeds, arching his back. We would bang toys on his bottle to distract him. At this stage most nights he was sleeping though and I think that was the only way we survived. He continued to scream and whinge all day and I'm sure he was exhausted at night and that is why he slept. Despite all this he continued to gain weight and reach all his milestones. I lost weight rapidly and was lighter than before falling pregnant. We contemplated that he was just an attention-seeking baby because when we played on the floor, or took him somewhere different, with different toys, he was okay.

The feeding continued to get worse so two and a half months after seeing the GP, when Daniel was six months old I took him to a paediatrician. He immediately diagnosed reflux and oesophagitis (inflammation and ulceration of the oesophagus) and started Daniel on Ranitidine (Zantac) which reduced the acid in the stomach, to stop the 'heartburn' type pain. I will never forget what a relief it was to get a diagnosis; little did I know that this was only the start.

Daniel's feeds immediately improved on the Zantac but he continued to be very irritable and whiny between feeds. Three weeks later we started him on Prepulsid (Cisapride) which increases the rate of the stomach emptying, but it didn't seem to make a great deal of difference. We tried him on Nutramigen, in case he was cow's milk intolerant. It seems to help for a couple of weeks, but then he just went back to the old irritable Daniel.

I had become suspicious of a few things in his diet. We went camping over Easter and I gave him a Heinz tomato based baby food - it came out the other end looking nearly same as it went in and Daniel was extremely unsettled all weekend. A booklet from a support group for reflux babies mentioned avoiding acidic foods for reflux babies so we presumed that was the reason it was upsetting him. Luckily, for this reason, we didn't give him Kiwi fruit, oranges or fruit juice.

At eight months of age he was still whingeing all day and throwing huge temper tantrums (head banging the dishwasher) so our paediatrician organised a barium swallow. He also started him on Mylanta four times a day. The first week on Mylanta he was wonderful and that week he had the barium swallow, which was normal, much to my disgust. The next week he was worse than ever. I stopped the Prepulsid at 12 months and started Daniel on cow's milk, which made no difference.

At this time I went back to work two days a week and left my mum to cope with Daniel - there was no way a child care centre would have taken him. I think going back to work was the best thing. I would come home after my two days and feel ready to cope with another week of life with Daniel. My mum says she even dreaded him coming for the two days sometimes.

Around this time I tried a naturopath, masseur and chiropractor, but nothing really helped.

By fifteen months of age he was no better. A normal day was leaving him scream to get him to have his afternoon sleep and to settle at night. I would put him in his room several times a day on a bad day and sit for ten minutes and try to calm myself down. Normal daily tasks such as cooking meals and washing were all done while he screamed.

I returned to his paediatrician and he referred us to a gastroenterologist at the Royal Children's Hospital in Melbourne. He told us that he doubted Daniel's behaviour was due to reflux (Daniel smiled at him and played with the toys in his room!) He advised I stop the Zantac and organised for him to have a pH study (monitors acid in the oesophagus over 24 hours) and gastroscopy

(tube to look at the stomach and oesophagus). After stopping the Zantac, David actually seemed a little better and stopped his head banging.

The pH study showed 'mild' episodes of reflux. His gastroscopy showed moderate to severe inflammation and ulceration of his oesophagus and suggested that there may be an allergy involved. They suggested we see the allergy department at the Royal Children's Hospital. They put Daniel on the Neocate diet. He was only allowed Neocate formula, rice, zucchini, apple, pear and potato. The doctor at the allergy department also advised me that these children get into such bad behavioural problems that once they're fed and changed you just have to leave them scream! The diet was a disaster to say the least - to try to get an 18-month-old to drink this formula, that you gag on yourself it's so foul tasting, was impossible. Daniel screamed all week and was so bad by the end of the week I had to take time off work. He was constipated from only drinking small amounts of water.

In desperation we were referred to a surgeon about the possibility of surgical correction. He wasn't convinced - so he sent us for a gastric emptying study, which was very distressing for Daniel - they put a large dome over his face and stomach. This showed he only refluxed once. The surgeon suggested trying Losec (Omeprazol) which stops acid production in the stomach and helps heal the oesophagus. We started Losec - after about a month we noticed a big difference in his behaviour - he was a much happier little boy and he actually sat and played with toys for short periods of time - something he had never done before.

I was suspicious of food colouring and artificial additives at this stage, as some evenings we described Daniel as 'bouncing off the walls' he was so hyperactive. For this reason we only let him drink plain milk and water and filled him full of 'healthy' fruits, vegetables and cheese!

Like everything else the effect of Losec was wearing off. Daniel was starting to complain of his 'tummy burning' and pointing to his oesophagus. He required constant amusement and was generally a very unhappy little boy. I was finding him nearly impossible to live with and constantly comparing myself to the other mums in playgroup and wondering why they all got so much enjoyment out of their children.

When Daniel was around two and a half years old I happened to go to a seminar through work on food intolerance and allergy run the team at the Royal Prince Alfred Hospital in Sydney. I couldn't believe what I was hearing at the lecture - it was Daniel all over! I immediately sent away for the elimination diet books and got a copy of Friendly Food.

I started off by leaving him on dairy and wheat products. After 1-2 weeks we noticed a difference in his hyperactivity on the diet but he was still having many days of irritability and complaining of his tummy burning. His loose bowel actions were persisting. We stopped dairy products and put him on soy and we started giving his Losec in pear jam instead of yoghurt. He had watery diarrhoea for two weeks after stopping dairy products as a withdrawal effect. Unfortunately what we didn't know was the Losec is not absorbed properly unless given in something acidic like yoghurt. After one month of giving the Losec in pear jam, Daniel's stomach pain was severe.

After being unwell for three days with a high temperature and complaining of shoulder tip pain, Daniel was finally diagnosed at the Royal Children's Hospital with pneumonia from aspirating on his vomit. (I had seen two other doctors who told me children don't know where their pain is and that he had a viral infection.) The pneumonia was in the back of his lung and was pressing on his diaphragm, which was giving him shoulder tip pain. I have never seen Daniel so sick - we thought he was going to die.

Again in desperation we returned to his gastroenterologist who advised another pH study and returning to the surgeon for fundoplication, which kinks the oesophagus to stop food refluxing

back from the stomach. He felt he might have a physical problems as well as an intolerance, which caused hyperactivity. So when he was three, Daniel had fundoplication. We stopped the Losec the night before surgery. The surgery was major - four days in hospital and two days on a morphine infusion. As soon as the morphine stopped Daniel started complaining of his stomach burning but now he pointed to his stomach rather than his oesophagus - the surgery had only moved the pain. We recommenced his Losec on leaving hospital. Daniel's weight had dropped from above to below average, as we struggled to maintain his nutrition on vitamised elimination diet.

I hit rock bottom. I was waking at night in a sweat over what I had put him through. I rang the Royal Prince Alfred Hospital Allergy Clinic in Sydney, beside myself, and they suggested that we bring Daniel up to Sydney. I only wish we had done it prior to the surgery.

At the clinic, his behaviour chart revealed that Daniel was very high for hyperactivity and learning problems and we were told we were dealing with severe food intolerance and ADD. We were advised to try Daniel off pears as he is very salicylate sensitive.

Daniel is now nearly four and in the last month he has been consistently much better. He only tolerates rice, potato, cabbage, beans, chicken, lamb, Nuttalex and restricted amounts of sugar. He is still on Losec which we have increased in the last month to combat his stomach pain. We have found he is no longer reacting as badly to perfumes since stopping pears and maple syrup. Since stopping rice bubbles his aggressive behaviour have ceased. He will actually sit and play with toys now, although his concentration is poor at times. We have tried him on Ritalin but if he's having a bad day food wise, Ritalin only makes him worse.

The last four years all seem to blur into one big nightmare but I realise I was becoming very bitter about the whole thing. I have resolved to look ahead only. Daniel is really a beautiful little boy underneath all the problems he has had. I try to make the most of the good days and not dwell on the bad days – Jenny.

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**More Restless Babies** by Sue Dengate *Reprinted with permission from the February 2008 Australian Breastfeeding Association's magazine Essence.*

Five years ago, when my article *Restless Babies* was published in the Australian Breastfeeding Association's magazine *Essence*, I was surprised by the feedback.

Many mothers had been unaware that food additives can pass through breastmilk to affect babies, and that food additives have been associated with irritability, restlessness and sleep disturbance.

'I recommended your article to a distraught mum via a breastfeeding support bulletin board,' wrote one breastfeeding counsellor. 'She was shocked to discover that tartrazine [artificial colour 102] was hiding in many 'healthy' foods. Within just two days of changing her diet, her baby had a normal sleeping pattern. Not only that, but her two year old 'spirited kid' is much calmer, and has stopped throwing incessant tantrums.'

The consumption of food additives in processed foods became widespread in the 1960s and has increased every year since then. The more additives you eat, the more likely you are to be affected, and the effects may be worse when additives are consumed in combinations.

New mothers are particularly at risk. Cindy from *Restless Babies* knew she had to keep up her fluids while breastfeeding so she drank up to five cans of carbonated lemon flavoured drinks a

day, each containing two additives associated with behavioural problems. Another mother wrote, 'my husband thought he was helping by bringing home takeaways every night'.

### **The 30 minute rule**

How will you know if your baby or child is affected by additives? Research shows that if reactions don't occur within 30 minutes, consumers don't make the connection. Yet reactions to additives generally occur hours or even days later. With breastfeeding, the delay is much longer. It's usually only by avoiding these additives that you can see a difference.

When baby Chris Hewton from Western Australia was born he screamed for about 18 hours a day every day for three months, until he and his mother Dani were hospitalised.

'I am afraid I might hurt Chris if I don't get some sleep,' Dani wrote in her diary. 'The staff take over Chris and I get to sleep. Staff are amazed at the amount Chris screams.' Referred by the hospital doctor to a dietitian, Dani began an elimination diet, and Chris' reflux and diarrhoea started to improve. Due to mistakes, it took nearly 12 months to work out exactly which food chemicals affected him. 'Preservative 282 in bread is by far the worst,' she wrote later. 'Within 3 hours, Chris is screaming in agony and has chronic diarrhoea. When I was breastfeeding and ate 282 he would react within 12 hours. Colours make him really hyperactive'. As well, Chris was affected by some natural chemicals called salicylates.

Like Dani, most mothers have never heard of salicylates, yet doctors have reported since the 1960s and 70s that some children's behaviour can be affected while 'under the influence' of these natural pesticides in some medications, most fruit and some vegetables. Food processing has led to an increase not only in additives but also in our daily intake of salicylates because, for example, there are many more salicylates in a serve of juice that contains the equivalent of ten oranges plus peel than in one orange.

### **Allergy or intolerance?**

Food sensitivity runs in families. Babies can be born with a susceptibility to food allergy, reacting to proteins in foods such as peanuts, milk or eggs, or with an intolerance to food chemicals such as additives and salicylates. A family history of hayfever, eczema and asthma suggests an allergic family. Although rare, food allergy is increasing. Mothers in allergic families are urged to delay introduction of peanuts and other known allergens and to avoid them during late pregnancy and breastfeeding.

'My husband has eczema, but I had no idea this meant we were an allergic family', commented a mother from Coffs Harbour. Alerted to the possibilities of food sensitivity by *Restless Babies*, Ruth discovered through tests at a hospital allergy clinic that her baby's rashes were related to a severe peanut allergy.

Ruth's baby also had sleeping problems. 'We could never get her to sleep,' Ruth said. A family history of sleeping difficulties, migraines, irritable bowel symptoms or ADHD suggests food intolerance. As it turned out, Ruth's daughter had both food allergy and food intolerance. Although laboratory tests can confirm allergy, there are no scientifically proven tests for food intolerance, so like Dani, Ruth was put on an elimination diet to find out what was affecting her daughter.

### **How many children are affected?**

When food additives first became common, studies suggested that only a few children were affected. However, as reactions are related to dose and doses are increasing every year, you would expect more children to be affected and that appears to be happening.

Last year I was invited to take part in an additive-free trial at Palmers Island Primary School in Northern NSW. For two weeks, children were offered additive-free breakfasts and asked to avoid nasty additives. Accompanied by a film crew, I visited the school to teach children, staff and parents to read labels. At that stage I doubted whether asking children to avoid additives would make any difference but within a week everyone saw an improvement. After the trial the students were permitted to eat additive-laden treats and everyone could see for themselves the changes in behaviour. Students who had previously been calm and cooperative became loud, cheeky and argumentative.

'I didn't think I'd see a lot of changes because they eat pretty well anyway' said one mother who was surprised to find her boys played much more cooperatively when she switched from artificially coloured lollies to Werthers toffees, and from BBQ flavoured biscuits to plain crackers.

Altogether, out of the hundreds of additives permitted in our foods, more than 50 (see box) have been linked to a range of problems with sleeping, toilet training, bedwetting, fussy eating, speech delay, behaviour and many other seemingly trivial childrearing issues that can erode family quality of life. As well, there can be reflux, colic, nappy rash and other itchy skin rashes, asthma and headaches.

All children are affected differently and any food additive can be related to any symptom. Adults can be affected as well, so mothers often discover a food sensitivity themselves.

### **A '50s diet**

What children ate in the 1950s was low in additives – porridge, preservative free bread, pure butter, fresh fruit and vegetables, home cooked 'meat and three veg', plain biscuits such as butter shortbread, water or milk to drink. There's an additive free recipe booklet on our website with this kind of food and many families can see an improvement by cutting down on additives.

'Since getting your DVD and booklet, we have been amazed at the level of additives and preservatives in nearly everything we fed to the kids', wrote one father. 'After we started to remove the nasties from our 4 year old son's we saw an immediate difference in his behaviour.'

A smaller number of families are sensitive to salicylates. For best results with the most sensitive babies, mothers can do a trial of an elimination diet supervised by a dietitian, although it is important to check with your doctor first in case there is medical cause of your baby's problems. Ruth's baby was five months old when she started on her elimination diet. 'Within a couple of days there was a total change', said Ruth. 'It was quite miraculous. Her eczema cleared up, she was settled and she was sleeping well'.

### **More information**

Food allergy: [www.allergyfacts.org.au](http://www.allergyfacts.org.au)

Food intolerance: [www.fedup.com.au](http://www.fedup.com.au).

A list of supportive dietitians is available at <https://fedup.com.au/information/support/failsafe-friendly-dietitians-and-other-health-professionals>

Sue's new DVD, *Fed Up with Children's Behaviour*, is available through [www.fedup.com.au](http://www.fedup.com.au), from selected outlets and online. The Failsafe recipe booklet is freely downloadable from the Fed Up website.

### **About the author**

Sue Dengate is a psychology graduate and former high school teacher who became interested in the effects of foods on children's behaviour as a result of her own children's experiences. She is author of the Fed Up series of books and runs the Food Intolerance Network with her husband Dr Howard Dengate, a food scientist.

## NASTY ADDITIVES

### ARTIFICIAL COLOURS

102 tartrazine, 104 quinoline yellow, 107 yellow 2G, 110 sunset yellow, 122 azorubine, 123 amaranth, 124 ponceau red, 127 erythrosine, 128 red 2G, 129 allura red, 132 indigotine, 133 brilliant blue, 142 green S, 151 brilliant black, 155 chocolate brown

### NATURAL COLOUR

160b            annatto

### PRESERVATIVES - *sulphite preservatives are most associated with asthma*

200-203            sorbates (*in margarine, dips, cakes, fruit products*)  
210-213            benzoates (*in juices, soft drinks, cordials, syrups*)  
220-228            sulphites (*in dried fruit, fruit drinks, sausages, and others*)  
280-283            propionates (*in bread, crumpets, bakery products*)  
249-252            nitrates, nitrites (*in processed meats like ham*)

### ANTIOXIDANTS - *synthetic antioxidants in vegetable oils and margarines*

310-312            Gallates  
319-320            TBHQ, BHA, BHT

### FLAVOUR ENHANCERS

621            MSG (*in tasty foods, fast foods, snack foods*)  
627, 631, 635    disodium inosinate, disodium guanylate, ribonucleotides  
                  (*can be associated with itchy skin rashes*)  
HVP            hydrolysed vegetable protein, vegetable protein, yeast extract

### ADDED FLAVOURS

There are thousands of artificial flavours which don't have to be identified by number because they are considered to be trade secrets. Flavours may contain unlisted artificial colours and preservatives.

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