

# FOOD INTOLERANCE NETWORK FACTSHEET

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## The bread preservative (282)

280 Propionic acid

281 Sodium propionate

282 Calcium propionate

283 Potassium propionate

Whey powder (may be cultured with propionibacteria but not listed on the label)

The use of calcium propionate (282) as a preservative in bread became widespread in Australia in the early 1990s. This preservative is rarely used in Europe or New Zealand, used increasingly in the UK, and common in Australia and the US.

Calcium propionate and the other propionates (280-283) occur naturally in many foods and dairy products like Swiss cheese. In small amounts they are not harmful but, as with other additives, the effects are dose related. Very few people will be affected by two slices of preserved bread but effects are cumulative, build up slowly and remain unnoticed. Like all additives, this preservative was not tested before approval for its effects on children's behaviour and learning.

### How does it affect people?

Reactions can be anything from the usual range of food intolerance symptoms: migraine and headaches; gastro-intestinal symptoms including stomach aches, irritable bowel, diarrhoea, urinary urgency, bedwetting; eczema and other itchy skin rashes; nasal congestion (stuffy or runny nose); depression, unexplained tiredness, impairment of memory and concentration, speech delay; tachycardia (fast heart beat); growing pains, loud voice (no volume control); irritability, restlessness, inattention, difficulty settling to sleep, night waking and night terrors.

Propionates are one of the most difficult additives to avoid because their use is so widespread and they are in one of our most basic foods, our daily bread. In less than one generation, most Australians have gone from eating none of this preservative to eating it every day of their lives.

### Isn't it important to keep our bread fresh?

Contrary to what the food industry would like you to believe, this additive is not to keep your bread fresh. Calcium propionate (282) is added to inhibit the growth of mould. There is no mould on a freshly baked loaf of bread, so why use a mould inhibitor? Bakers who keep their work benches and slicer blades clean and mould-free, by wiping with vinegar every day, do not need this additive. However, bakers in large factories prefer the less time-consuming method of "fogging" their equipment with a chemical spray. Putting hot loaves in plastic bags makes the problem worse. Preservative 282 is for the convenience of the manufacturer not the consumer.

## How will I know if I am affected?

Very few people realise they or their children are affected by this additive, because if you eat it every day, your problems will seem to come and go without any obvious cause. Some people notice a difference within days if they switch to preservative free bread. Others will get better results by doing the elimination diet with challenges. Babies can be affected through breastmilk.

## Two stories

- My breastfed baby son screamed for the first 3½ months of his life all day and half of the night until my doctor got me onto a dietitian for the elimination diet. He reacts when I eat most additives but the bread preservative is the worst. He screams in agony within 24 hours and often gets a red rash on his face, back and stomach. Before we tried the diet, we were hospitalised twice because I just couldn't cope. - *Dani Hewton, WA*
- My daughter is nearly 5 years old. When we did the elimination diet we found that she reacts to the bread preservative, some other preservatives and MSG. Her reactions to the bread preservative range from temper tantrums to very moody pre-diet behaviour. This includes hitting and annoying her brother and sister if they are trying to do homework or just generally whingy and very demanding behaviour and refusing to do as requested. At night, she wakes up from 1 to 5 times per night and walks the house. When we put her back on to preservative-free bread her behaviour changed back to good behaviour within 3 or 4 days. - *Moya Connell, Qld*

In Australia, propionates were only recently permitted in other products such as In Australia such as cheese or fruit juice and we have not yet received any complaints about reactions to these items. A mother in the US who was keeping her son on a propionate-free diet noticed a big reaction after a pizza. When she asked, they told her their pizza crusts were propionate-free but the cheese was "just loaded with it" .

## Watch out for whey

Propionibacteria can be cultured in whey powder as a method of using natural 282 preservative without having to declare it on the label. Avoid breads containing whey or whey powder, even if marked "preservative free".