

Nutrition Matters

Nutrition Services, Community and Health Services

Can food affect my child's behaviour?

Do comments like these sound familiar?

"You can tell when my kids have eaten sugar. It makes them bounce off the walls!"

"My child gets so "hyper" when he eats anything with artificial food colours."



Sugar and artificial food colours and other food additives are often blamed for over-active or "hyper" behaviour in children. Read on for more information.

Food additives

Food additives are chemicals that manufacturers add to foods for various reasons such as preserving foods or improving their appearance. Food additives can come from either natural or artificial sources. Examples of food additives include colours, preservatives and some sweeteners. In Canada, food additives must be identified in the ingredient list of foods containing them.

Research indicates that there may be a link between consumption of mixtures of certain food additives, such as artificial colours or preservatives, and hyperactivity in children. Health Canada is proposing regulatory amendments that would eliminate the manufacturers' option of simply using the word "colour," and require that individual colours be identified on food

ingredient labels of pre-packaged foods sold in Canada. Improved labelling will provide consumers the choice of avoiding specific colours.

If you strongly suspect a specific food ingredient is causing behavioural problems, you would need to test the relationship. Any elimination diet should be done under the supervision of a doctor or dietitian.

Sugar

You may have noticed that your child is over-active or "hyper" when there is a special occasion such as a birthday party. Some people link this over-active behaviour with eating too much sugar at the event. However, research has found that sugary foods do not affect children's behaviour. The child's over-active behaviour is probably caused by the excitement surrounding the treat (for example, the exciting games and activities at a birthday party).

It's important, however, to limit the amount of sugar your child eats. These are some problems that may occur when children eat too much sugar:

- Foods high in sugar may replace the nutritious foods needed for growth and development
- Sticky, sugary foods, especially when eaten between meals, can cause dental cavities
- Sugary foods are also often higher in fat and calories. Too much of these foods can lead to unhealthy weights

Caffeine

Caffeine is found in chocolate, coffee, tea, cola beverages, energy drinks, chocolate and some medicines.

Caffeine content of various foods

Product	Amount	Caffeine (mg)
Cola, regular or diet	355 mL can	36-50
Chocolate milk	237 mL (1 cup)	8
Coffee, brewed or filter drip	237 mL (1 cup)	135-179
Iced cappuccino or frappuccino	310-375 mL (10-12 oz)	85-90
Tea	237 mL (1 cup)	50
Energy drink	250 mL can	80
Chocolate cake	80 g	36
Chocolate bar	56 g (2 oz)	14-38
Chocolate pudding	145 g (5 oz)	9

Sources: Product manufacturers; Caffeine in Food, Health Canada, 2010.

Too much caffeine can cause:

- Irritability
- Nervousness
- Headaches
- Problems sleeping
- Behavioural problems



For children age 12 and under, Health Canada recommends a maximum daily caffeine intake of no more than 2.5 milligrams per kilogram of body weight.

Maximum caffeine intake for children

Age	Maximum daily (mg)	What this looks like
4-6 years	45	Piece of chocolate cake
7-9 years	63	Can of cola
10-12 years	85	Small iced cappuccino or frappuccino

Source: Caffeine in Food, Health Canada, 2010.

Other reasons for over-active behaviour

Most children have difficulty paying attention, sitting still and having self-control at one time or another, particularly when they are excited or under stress.

If your child seems over-active or “hyper,” think about a few things:

- Did your child just come back from a special event such as a birthday party? If so, this behaviour may just be normal childhood excitement
- Is your child not getting regular physical activity due to bad weather or other reasons? If so, over-activity may indicate a need to get active
- Is your child hungry? If the answer is yes, being “hyper” may indicate a need to eat

The best advice is to make sure children:

- Have regular meal and snack times, including breakfast
- Eat a variety of foods from all four food groups from Canada’s Food Guide
- Eat more fresh foods and less processed foods
- Have regular physical activity. Children 5-17 years need 60 minutes of physical activity every day
- Avoid caffeine