

## Obesity in children

Australian children are growing fatter at a rapid rate. The number of overweight children has doubled in recent years. The development of fatness in children is disturbing because it causes ill-health and is very difficult to reverse. Overweight children are very likely to be overweight adults.

### Overweight and obesity

Overweight and obesity in children are among the most important risks to children's long and short-term health. As with adults, the body will store fat when the energy (kilojoules) consumed from food and drink is greater than the energy used up in activities and when at rest. Small imbalances over long periods of time can result in a child becoming overweight or obese.

### A worldwide problem

Levels of childhood obesity are increasing at alarming rates in many countries, including the United States, the United Kingdom and Australia. In Australia, one in five children and adolescents are either overweight or obese.

### Changing society has also contributed to obesity

As overweight and obesity have become more common, there have been some major changes in how we live. For example:

- The overall cost of food has gone down.
- More food is prepared away from home.
- Energy-dense foods and drinks are more readily available.
- Portion sizes of energy-dense foods have increased.
- Marketing of energy-dense foods and drinks has increased.
- The use of private transport has increased.
- The number of two-income families has increased.
- The time spent in paid employment has increased.
- The role of physical education in the school curriculum has reduced.

### Body mass index can determine if a child is obese

Growth charts, such as weight-for-age and weight-for-height, are used to monitor the physical progress of children. However, there are now also BMI guidelines in relation to childhood obesity.

A child or adolescent's body mass index (BMI) is determined by dividing their weight (kilograms) by their height (m<sup>2</sup>).

### BMI and obesity

Children above these cut-off points are considered obese:

- **2 year old children** – 19.81 for girls and 20.09 for boys
- **5 year old children** – 19.17 for girls and 19.3 for boys
- **10 year old children** – 24.11 for girls and 24 for boys
- **15 year old children** – 29.11 for girls and 28.30 for boys
- **18 years and over** – 30 for both males and females.

### BMI and overweight

Children above these cut-off points are considered overweight:

- **2 year old children** – 18.02 for girls and 18.41 for boys
- **5 year old children** – 17.15 for girls and 17.42 for boys
- **10 year old children** – 19.86 for girls and 19.84 for boys
- **15 year old children** – 23.94 for girls and 23.29 for boys
- **18 years and over** – 25 for both males and females.

## Obesity in childhood leads to obesity in adulthood

Overweight or obese children are more likely to remain obese as adolescents and become overweight or obese adults. Adolescence appears to be a sensitive period for the development of obesity – about 80 per cent of obese adolescents will become obese adults.

Studies suggest that being obese as a child or adolescent increases the risk of a range of diseases and disorders in adulthood, regardless of whether the adult is obese or not. It's important to identify and start to reverse the condition before children become adults. Ideally, overweight and obesity should be prevented.

## Health problems associated with obesity

Potential health problems for obese children include:

- Type 2 diabetes
- Cardiomyopathy
- Pancreatitis
- Liver problems
- Orthopaedic disorders (problems with foot structure)
- Respiratory disorders such as upper airway obstruction and chest wall restriction, resulting in sleep apnoea
- Reflux, gallstones and other stomach conditions
- Eating disorders such as bulimia.

## Social problems for obese children and adolescents

Obesity also has a major impact on how a child feels about themselves and how they interact with others. Obese adolescents are more likely to have low self-esteem, which may impact on other aspects of their lives, such as the development of friendships and competency at school.

## Causes of obesity

Obesity in children may be caused by:

- **Genetics or an abnormal endocrine gland** – it is thought that genes may play a role in between 25 to 40 per cent of all cases of obesity.
- **Eating more kilojoules than are used** – children, like adults, will store fat if they eat more energy (kilojoules) than they use.
- **Lack of physical activity** – Australian children are less active than they were in the past.
- **Spending a lot of time on sedentary pursuits** – Australian children watch, on average, around 2 ½ hours of television a day as well as spending time using computers and other electronic games. It seems that sedentary pastimes are replacing active ones.

## Preventing obesity

Healthy eating and regular physical activity will help to prevent obesity. Try to:

- **Eat a healthy diet** – foods vary greatly in their kilojoule content. Foods high in fat or sugar, or both, usually contain more kilojoules. Low kilojoule foods include fruits and vegetables and lower fat, lower sugar items. Water and reduced fat milks are the best drinks for children over two years of age.
- **Encourage activity** – suggest walking to school and participation in active out-of-school activities, and encourage outside playing if possible. Try to limit television watching and playing on computers.
- **Be a good role model** – children learn from their parents. Try to eat healthy foods and be active regularly with your children.

## How to manage childhood obesity

Children who are overweight or obese will find it easier to achieve a healthy weight if the whole family makes healthy lifestyle changes. For example:

- **Get good nutrition advice** – nutrition advice may help to change the whole family's eating habits. Avoid weight loss programs or diets.
- **Provide healthy snacks** – snacking is an important part of many children's eating habits and shouldn't be discouraged; just make sure the snacks are mostly low in kilojoules. Fruits and vegetables make excellent snacks.

- **Increase activity** – children should be encouraged to choose more physical activities. Go for walks together. Vigorous activity that makes you puff should also be encouraged to improve fitness and hasten fat loss. Health professionals advise that everyone should exercise for at least 30 minutes each day.
- **Reduce passive pastimes** – reduce television viewing and computer games to a total of less than two hours per day (combined).
- **Find out as much as you can** – seminars and educational activities run by teachers and community groups can help parents and children learn more about obesity and how to prevent it.

### **Food and activity choices are important**

Try to make healthy choices:

- Don't buy soft drink or cordial and limit fruit juice to one glass a day.
- Encourage children to drink water and switch to low fat milk.
- Give children a choice of nutritious snacks, such as fruit, yoghurt and sandwiches.
- Ensure children have a nutritious breakfast and switch to a low fat, low sugar, whole wheat or oat breakfast cereal.
- Reduce the number of takeaway meals – try cooking a dish the night before so that the meal is ready when you come home from work or cook large quantities and freeze meals for use later.
- Avoid using high fat or high sugar foods (for example lollies) as rewards for good behaviour.
- Be wary of foods marketed as 'low fat' as these are usually high in sugar and still high in kilojoules.
- Encourage carers and grandparents not to feed children with energy-dense, nutrient-poor foods.
- Find ways to incorporate physical activities into your family's routines.

### **Parents can help children manage their weight**

Parents play an important part in preventing childhood obesity. They provide the food and they are the role models. Try to set goals which can be reached. For example:

- Reduce TV viewing and electronic games to a total of two hours per day (combined).
- Offer fruit as a snack after school.
- Spend time together as a family doing things like taking the dog for a walk, kicking a ball at the park or going swimming.
- Be supportive and offer praise to the child.
- Prepare healthy meals together.

### **Don't set weight targets**

Don't set specific weight targets as this may lead to eating disorders. It's best to focus on healthy eating habits and increased exercise.

### **Where to get help**

- An accredited practising dietitian (APD) [www.daa.asn.au](http://www.daa.asn.au) or nutritionist
- Your doctor
- Go for your life Infoline service Tel. 1300 739 899
- The Maternal and Child Health Line is available 24 hours a day Tel. 132 229.

### **Things to remember**

- Childhood obesity, and especially adolescent obesity, can lead to adult obesity.
- Obesity can result in serious health problems in later life.
- Children who are obese do less well at school and can become socially isolated.

### **Want to know more?**

For references, related links and support group information, go to More information.

**This page has been produced in consultation with, and approved by:**



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**More Information**

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