Growth and development - primary school children
Summary

- Parents and carers are the main role models for children (of all ages), despite the powerful influences of peers and the media.
- Primary school children pick up the media messages surrounding body image and are thinking about how they look.
- Being underweight or overweight can cause health problems in the long term.

The easiest way to measure a primary school child’s growth is by plotting their weight and height over a period of time on growth reference charts. Healthy children will generally have healthy growth and development patterns.

Many things influence growth including genes, nutrition, good health and sickness. Children do not usually grow in a constant way. They usually grow in “bursts”. A change in height and weight can occur in a short amount of time. Children’s growth during the primary years is slow and steady.

How children’s growth is measured

Doctors, nurses and other health professionals use a variety of ways to assess growth in primary school children. The most common ways include:

- **Growth charts** – standard growth references or growth charts are used to help interpret the child’s height and weight measurements.
- **Body Mass Index (BMI)** – a calculation of BMI and use of age-specific BMI charts gives an indication of weight-for-height ratio.

Growth charts in Australia

Growth charts are used to measure children’s growth. Measurements are taken from studies of the population as a whole and reflect the normal range of height and weight for children within a particular group (for example, all children born in a particular year).

The charts are divided into sections, called ‘centiles’, which show the proportion of the group that is above or below a particular measurement. For example, a child who is on the 85th centile for height is taller than 85 per cent of other children in Australia (of the same age and gender) but shorter than 15 per cent of other children.

In Victoria, the Centre for Disease Control growth charts from the United States are most commonly used to assess and monitor the growth of children. The World Health Organisation growth charts may also be used in some settings.

BMI centile charts for children

The BMI, is the most common way to assess whether a person is underweight, healthy weight or overweight. The BMI is a number that interprets a person’s weight in relation to their height. It is calculated by dividing a person’s weight in kilograms by their height in metres squared.

\[
\text{BMI} = \frac{\text{Weight (kg)}}{\text{Height (m)}^2}
\]

As children grow, their amount of body fat changes and so will their BMI. For example, BMI usually drops during the preschool years and then increases through the school years into adulthood. So a BMI calculation for a child (or for an adolescent) must be looked at together with age and gender centile charts.

BMI centile charts are used for children over the age of two. The charts use centile cut-offs as a guide only. BMI above the 85th centile and below the 95th centile indicates a child is overweight. The 95th centile and above indicates obesity.

Weight problems in childhood can cause problems

Being underweight or overweight can cause problems both now and when your child is an adult. For example:

- Severely restricting food or dieting before puberty can stunt a child’s growth.
- Overweight children may be teased in the schoolyard, which may make them self-conscious and affect their attitude to school.
- Overweight children are less likely to take part in physical activity, which can make it even harder for them to manage their weight.
- Childhood obesity can increase the risk of a child developing a range of illnesses in later life such as diabetes and heart disease.

Some primary school children believe they are either too fat or too thin (skinny), even if they are within the healthy weight range for their height and age. At this stage, primary school aged children become aware of how they look compared with other children, and have begun to notice the media messages surrounding body image.
How parents react to their child’s body image issues is very important. Parents and carers are the main role models for children (of all ages), despite the powerful influences of peers and the media.

Try to be a good role model and establish healthy eating habits for yourself and the whole family. Don’t ‘crash diet’ or skip meals yourself and talk to your children about the importance of healthy eating habits for everyone. Try to involve your children in physical activities they enjoy—perhaps do things together as a family, like walking or bike riding. This is the perfect time for your child to learn about the importance of healthy food and activity.

**See your doctor if you are worried**

Always see your doctor if you are concerned about your child’s growth. Your doctor can use a range of charts to help assess whether or not your child’s growth is of concern.

**Where to get help**

- Your doctor
- Dietitians Association of Australia Tel. 1800 812 942
- Nurse-on-call Tel. 1300 60 60 24 (24 hours, 7 days)
- Primary School Nursing Program, Office for Children and Early Childhood Development Tel. (03) 9096 8653
- The Royal Children’s Hospital Tel. (03) 9345 5522

**Things to remember**

- Parents and carers are the main role models for children (of all ages), despite the powerful influences of peers and the media.
- Primary school children pick up the media messages surrounding body image and are thinking about how they look.
- Being underweight or overweight can cause health problems in the long term.

**References**

- Weight – how much should you weigh?, Child and Youth Health SA. [More information here.](#)
- Eating disorders and stunted growth, Child and Youth Health SA. [More information here.](#)
- Does the increase in weight of children matter?, Child and Youth Health SA. [More information here.](#)
- Child growth standards charts, Multicentre Growth Reference Study (MGRS), World Health Organization (WHO). [More information here.](#)
- Growth charts, Raising Children Network, The Australian Parenting Website. [More information here.](#)
- Key questions around introduction of new and revised growth charts for Victorian children (CDC 2000 growth charts), Victorian Government Health Information. [More information here.](#)
- Child Growth Charts, Centers for Disease Control and Prevention, USA [More information here.](#)
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More information

Children (4-12)

The following content is displayed as Tabs. Once you have activated a link navigate to the end of the list to view its associated content. The activated link is defined as Active Tab

• Children basics
• Growth and development
• Behaviour and learning
• Healthy eating
• Keeping active
• Managing weight
• Care and wellbeing
• Identity and relationships
• Health conditions and complaints
• Safety
• Grief and trauma

Children basics

• Childhood immunisation

Being immunised from an early age helps protect your child against serious childhood infections...

• Children and health services

There is a range of subsidised and free health services, including services for mental health and dental health, available for children in Victoria...

• Children – keeping them active

A young child is naturally active, so build upon their inclinations to use their body...
• Eating tips for school children
   Snacks are an important part of a healthy diet for active children, so offer nutritious as well as high energy snacks.

• Growth charts for children
   Babies and young children do not usually grow in a perfectly smooth way, but instead grow in 'bursts'.

• Immunisation – deciding which vaccines you need
   Everyone's immunisation needs are different and are influenced by your health, lifestyle, age and occupation.

• Parenting services
   Parenting is one of the most important tasks we undertake but it doesn't always come naturally.

Growth and development

• Child development (7) - three to four years
   Your child is starting to understand social skills like sharing and being kind, but they can only practise these skills for a short time while feeling safe and happy.

• Children's feet and shoe
   A child learning to walk receives important sensory information from the soles of their feet, and shoes can make walking more difficult.

• Dyslexia
   Dyslexia is a type of specific learning difficulty (SLD) in which the person has difficulties with language and words.

• Growth and development - primary school children
   Always see your doctor if you are concerned about your child's growth or weight.

• Growth charts for children
   Babies and young children do not usually grow in a perfectly smooth way, but instead grow in 'bursts'.

• Growth hormone
   Some athletes and bodybuilders wrongly believe that taking synthetic growth hormone will help build up their muscles.

• Immunisation history statements for children
   By law, parents or guardians must provide an Immunisation History Statement when enrolling children in any childcare service, kindergarten or primary school in Victoria.

• Left-handedness
   If your child is naturally left-handed, don't try to force them to use their right hand.

• Puberty
   Adjusting to the many changes that happen around puberty can be difficult for both parents and young people.

• Teeth development in children
   Teething symptoms are common in children and can be managed without medications.

Behaviour and learning

• 10 tips for managing sibling rivalry
   Teach your children to sort out minor differences themselves.

• 10 tips to prepare your child for high school
   Visit the school before the school year starts.

• 10 tips to raise an optimistic child
   Be a positive role model.

• A Healthy Start to School
   A Healthy Start to School – a guide for parents of children in their foundation year of school.

• Anxiety and fear in children

betterhealth.vic.gov.au
You can help your child overcome anxiety by taking their fears seriously and encouraging them to talk about their feelings.

- **Behavioural disorders in children**
  Untreated behavioural disorders in children may mean they grow up to be dysfunctional adults.

- **Bullying**
  Parents can help with bullying by supporting their child and involving the authorities to find solutions.

- **Children and literacy**
  Your child is literate if they know how to speak, read and write their language with confidence.

- **Children and shyness**
  If your child's shyness is especially debilitating, you may like to consider professional help from a counsellor or psychologist.

- **Children and sibling rivalry**
  Sibling rivalry is a common problem, particularly among children who are the same sex and close together in age.

- **Conduct disorder**
  Children with untreated conduct disorder are at increased risk of problems including substance use, personality disorders and mental illnesses.

- **Cyberbullying (online bullying)**
  Cyberbullying (or online bullying) happens when technology is used to bully someone.

- **Discipline and children**
  Disciplining your child means teaching them responsible behaviour and self-control.

- **Expressive language disorder**
  Expressive language disorder means that a child has difficulty with verbal, written or other information.

- **Left-handedness**
  If your child is naturally left-handed, don't try to force them to use their right hand.

- **Oppositional defiant disorder (ODD)**
  Oppositional defiant disorder is a childhood behavioural problem characterised by constant disobedience and hostility.

- **Peer pressure**
  Peer groups can be a very positive influence on your teenager's life.

- **Receptive language disorder**
  Receptive language disorder means the child has difficulties with understanding what is said to them.

- **Sleep - children and nightmares**
  Your child may have only a few scary dreams a year, or be troubled by nightmares much more often.

- **Young children and communication**
  Children thrive with words of encouragement and praise.

**Healthy eating**

- **Body image and diets**
  Some people diet because they have a poor body image, not because they want to be a healthy weight.

- **Breakfast**
  Children who skip breakfast may lack sufficient vitamins and minerals including iron, calcium, zinc and vitamin B2.

- **Childcare and healthy eating**
  Childcare centres should provide healthy meals for your children.

- **Children's diet - fruit and vegetables**
  If you eat and enjoy fruit and vegetables every day, your child may eventually follow your lead.

- **Eating tips for preschoolers**

betterhealth.vic.gov.au
Children are able to decide how much food they need for activity and growth if allowed to eat according to their appetite.

- Eating tips for school children
  Snacks are an important part of a healthy diet for active children, so offer nutritious as well as high energy snacks.

- Food for sport - tucker talk tips
  Carbohydrate is the most important nutrient for athletes.

- Healthy eating - school lunches
  Simple ways to make your child's school lunch healthier.

- Healthy eating tips
  A good balance between exercise and food intake is important to maintain a healthy body weight.

- Lunch boxes - healthy ideas
  Healthy foods that are great for school lunch boxes.

- Lunch boxes - healthy shopping ideas (video)
  Victorian State Public Health Nutritionist Veronica Graham takes us shopping for the right foods to include in your child's lunchbox.

- Lunch boxes - how to make them healthy (video)
  Victorian State Public Health Nutritionist Veronica Graham shares three healthy and delicious lunchbox examples for the kids and provides some great food preparation tips to save you time throughout.

- Lunch boxes - menu planner
  By planning ahead, you can make sure that your child's lunch box has each of the six key elements of a healthy lunchbox.

- Lunch box tips
  Encourage children to help choose and prepare their own healthy snack or lunch.

- Soft drinks, juice and sweet drinks - children
  Encourage children to drink and enjoy water. Sweet drinks such as juice, cordial and soft drinks may cause health problems for children if consumed in large amounts.

- Sticking to New Year's resolutions
  New Year's resolutions and how to stick to them.

- Vegetarian diets and children
  Children can eat a vegetarian diet and stay healthy as long as their extra nutritional needs are met.

Keeping active

- Children – keeping them active
  A young child is naturally active, so build upon their inclinations to use their body.

- Food for sport - tucker talk tips
  Carbohydrate is the most important nutrient for athletes.

- Gardening for children
  Children can learn new skills, have fun and develop self-confidence when they grow their own plants.

- Healthy active Koori kids - tucker talk tips
  Good nutrition and physical exercise help to keep Koori kids healthy and avoid diseases when they get older.

- Parent's guide for active girls
  Physical activity is an important part of health and wellbeing, and girls should remain active as they grow up.

- Sport and children
  Make sure that some family outings offer opportunities for physical activity, such as playing sport together.

- Sticking to New Year's resolutions
  New Year's resolutions and how to stick to them.
Managing weight

- **Body mass index (BMI)**
  
  Body mass index or BMI is an approximate measure of your total body fat...

- **Eating tips for school children**
  
  Snacks are an important part of a healthy diet for active children, so offer nutritious as well as high energy snacks...

- **Growth charts for children**
  
  Babies and young children do not usually grow in a perfectly smooth way, but instead grow in 'bursts'...

- **Obesity in children - causes**
  
  Once children are overweight, it takes a lot of effort for them to return to a healthy weight...

- **Obesity in children - management**
  
  If your child is overweight, you can help by making healthier lifestyle choices for yourself...

- **Overweight children - healthy lifestyle tips**
  
  You can help your child to develop healthy patterns for life and avoid obesity...

- **Parent's guide for active girls**
  
  Physical activity is an important part of health and wellbeing, and girls should remain active as they grow up...

Care and wellbeing

- **A Healthy Start to School**
  
  A Healthy Start to School – a guide for parents of children in their foundation year of school...

- **Childhood immunisation**
  
  Being immunised from an early age helps protect your child against serious childhood infections...

- **Children and health services**
  
  There is a range of subsidised and free health services, including services for mental health and dental health, available for children in Victoria...

- **Child safety in the car**
  
  Taking care to restrain children correctly while travelling in a car is the best way to prevent injuries...

- **Cyberbullying (online bullying)**
  
  Cyberbullying (or online bullying) happens when technology is used to bully someone...

- **Dental checks for young children**
  
  Children should have an oral health check by the time they turn two...

- **Immunisation history statements for children**
  
  By law, parents or guardians must provide an Immunisation History Statement when enrolling children in any childcare service, kindergarten or primary school in Victoria...

- **Immunisation in secondary schools**
  
  Some immunisations are recommended for all Australian teenagers...

- **Pain management (acute) - children**
  
  If you think your child is in pain, always see your doctor for diagnosis and treatment...

Identity and relationships

- **10 tips for managing sibling rivalry**
  
  Teach your children to sort out minor differences themselves... 10 tips for managing sibling rivalry...

- **A Healthy Start to School**
A Healthy Start to School – a guide for parents of children in their foundation year of school

- Body image and diets
  Some people diet because they have a poor body image, not because they want to be a healthy weight.

- Body image – tips for parents
  Give your child opportunities to appreciate their body for what it can do, rather than what it looks like.

- Bullying
  Parents can help with bullying by supporting their child and involving the authorities to find solutions.

- Children and shyness
  If your child's shyness is especially debilitating, you may like to consider professional help from a counsellor or psychologist.

- Children and sibling rivalry
  Sibling rivalry is a common problem, particularly among children who are the same sex and close together in age.

- Family violence and children
  Children exposed to domestic violence are more likely to experience emotional and behavioural problems.

- Peer pressure
  Peer groups can be a very positive influence on your teenager's life.

Health conditions and complaints

- Asthma explained
  Asthma cannot be cured, but with good management people with asthma can lead normal, active lives.

- Asthma in childhood - triggers (video)
  Parents and children talk about some of the factors that can cause a child's asthma to flare up.

- Asthma in children
  Understanding asthma triggers for your child can help to reduce the risk of an asthma attack.

- Back pain in children
  Children with back pain may grow into adults with chronic bad backs, so it is important to encourage sensible back care.

- Bedwetting
  Bedwetting is a problem for many children and punishing them for it will only add to their distress.

- Children and vomiting
  Mild vomiting is normal in most babies and improves over time.

- Constipation and children
  A healthy diet, plenty of fluids, exercise and regular toilet habits can help relieve constipation in children.

- Diabetes - issues for children and teenagers
  Many parents worry when their child with diabetes starts or returns to school.

- Fever - children
  Fever is a way in which the body fights infection. A fever is not dangerous and does not always indicate a serious illness.

- Gastroenteritis in children
  Gastroenteritis or Gastro can be dangerous for very young babies. Gastro is common in young children and spreads easily. Gastro is a bowel infection which causes diarrhoea (runny or watery poo) and...
• Head lice (nits)
  No product can prevent head lice, but regular checks can help prevent the spread.

• Immunisation history statements for children
  By law, parents or guardians must provide an Immunisation History Statement when enrolling children in any childcare service, kindergarten or primary school in Victoria.

• Obesity in children - management
  If your child is overweight, you can help by making healthier lifestyle choices for yourself.

• Pinworms
  Despite the unsavoury reputation, a pinworm infection (worms) is relatively harmless and easily treated.

Safety

• Animals and child safety
  Children should always be closely supervised near animals and taught how to behave safely around pets.

• Bicycle safety and children
  As they grow and develop, and with the help of adults, children become increasingly aware of how they can manage their own safety and become safer road and bicycle users.

• Burns and scalds - children
  Most hot tap water scald injuries to children happen in the bathroom.

• Child safety and injury prevention
  By making a few practical changes to your home, you can dramatically reduce the risk of injury to your child.

• Child safety – at home
  The best way to reduce the risk of injury to children is to remove a potentially dangerous item or add a safety product.

• Child safety in the car
  Taking care to restrain children correctly while travelling in a car is the best way to prevent injuries.

• Cyberbullying (online bullying)
  Cyberbullying (or online bullying) happens when technology is used to bully someone.

• Farm safety – children
  Children who live on farms are at greater risk of injury and death than their parents or other farm workers.

• Hot weather and child safety
  Babies and children can quickly lose body fluids in hot weather, which can lead to dehydration.

• Internet safety for children
  A child's digital footprint can be as easy to follow as their real footprints.

• Mobile phone safety for children
  Teach your child strategies for responding to mobile phone bullying.

• Playgrounds and child safety
  Play environments can be safe and beneficial for your child. With proper planning, you can make sure your child gets plenty of playtime activity.

• Poisoning and child safety
  Call the Poisons Information Centre on 13 11 26 immediately if you suspect your child has been poisoned or given the wrong medicine or the wrong dose of medicine.

• Road and traffic safety for children
  As they grow and develop, and with the help of adults, children become increasingly aware of how they can manage their own safety, and become safer road users.

• Scooters and child safety
  Scooters can travel at fast speeds and falls and collisions are disturbingly common.
Water safety for children

Toddlers are most at risk of drowning because they are mobile and curious but don't understand the danger of water...

Grief and trauma

- Child Protection Service
  Child Protection provides child-centred, family-focused services to protect children from harm caused by abuse within the family...
- Cyberbullying (online bullying)
  Cyberbullying (or online bullying) happens when technology is used to bully someone...
- Grief and children
  It can be difficult to talk to a child about death, but it is important to be honest with them...
- Grief – support services
  People who have support from family and friends are less likely to suffer poor health after bereavement and loss...
- Recent arrivals, asylum seekers and family support services
  Provides an overview of family support programs and health services available to refugees and asylum seekers living in Victoria...
- Trauma and children - two to five years
  Preschoolers may not have the words but will show their distress at traumatic events through changes in behaviour and functioning...
- Trauma and primary school age children
  Children look to their parents or carers to judge how to deal with a crisis...
- Trauma and teenagers - tips for parents
  Teenagers may turn to friends rather than parents for support in times of trauma and distress...

Related Information

- A Healthy Start to School
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Related information on other websites

- Child and Youth Health SA
- Dietitians Association of Australia

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