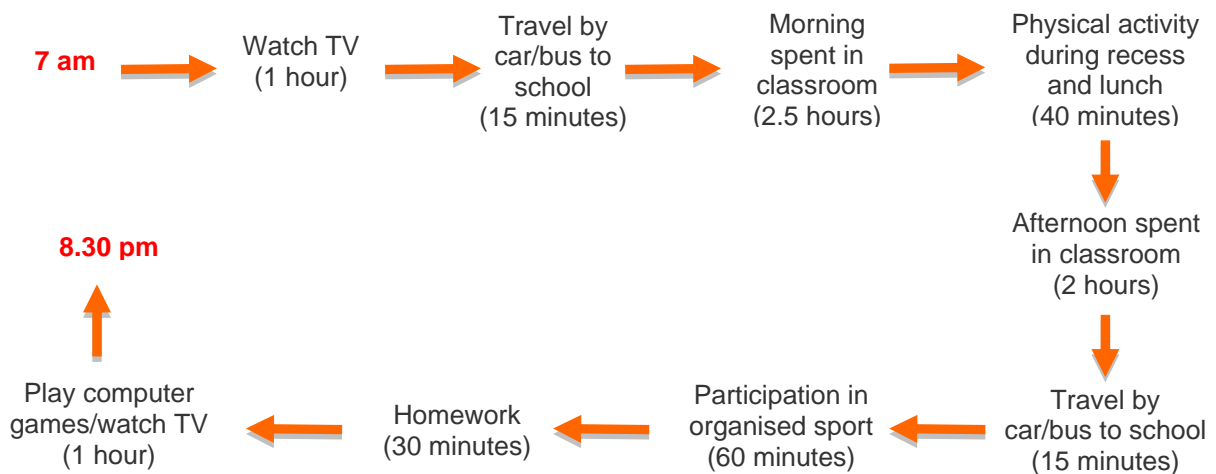


Sitting less for children

The arrival of the 'electronic age' has fundamentally changed how much time we spend sitting (also called being 'sedentary') at home and in other places, such as at school and work. This change has been directly linked to an increase in health problems, such as poor nutrition, obesity and insulin resistance, which can lead to diabetes. These health problems increase your risk of developing coronary heart disease.

There are many opportunities for children and young people to sit for long periods of time. Even children and young people who play sport after school and meet the *Physical Activity Recommendations for Children and Adolescents*¹ can still spend large amounts of the day sitting. See Figure 1 below for an example of what may be a typical child's day.

Figure 1. Example of a child's sitting time during one day (total sitting time 7.5 hours)



Because it's so easy for children and young people to sit too much, it's important for parents/carers, teachers and child care workers to encourage them to sit less and move more.

Why is sitting less better for children and young people?

Sitting less helps to reduce the risk of children and young people developing health and other problems in later life.

Watching television, using a computer and playing electronic games, which usually involve sitting for long periods of time, are a big part of children's and young people's leisure time. Therefore, children and young people who spend **less** time doing these things have better health than those who spend too much time doing these things.

From aged two years, and possibly younger, children who watch less than an hour of television a day have a lower risk of becoming overweight and lower energy (kilojoule) intake, and eat more nutrient-rich foods, than children who watch little television.² The same is true for older children.³

Infants and very young children who watch less than two hours of television a day can have better cognitive development, short-term memory, academic achievement and language skills; and a bigger vocabulary.⁴

Adolescent boys who watch less than two hours of television a day have a lower risk of elevated insulin resistance.⁵

The effects of electronic games and computer use on children's and young people's health are not as well known as those on watching television. However, some research suggests that children who spend less than two hours a day playing electronic games have better health and are less likely to be overweight or obese.⁶

Recent research also suggests that the less a person sits during the day (a low 'overall sitting time') may reduce their risk of obesity and insulin resistance. This means that even a very active child's or young person's health can improve more if they also sit for less than two hours a day.

Did you know?

- In 2007, just 6% of nine to 16-year-old children met the Australian recommendations to watch television, use a computer or play electronic games for less than two hours a day.⁸
- In Western Australia in 2008, few primary school boys (29%) and girls (25%) surveyed said they participated in less than two hours of electronic media activity on each of the previous seven days.⁹
- Among Western Australian secondary school children, just one out of five boys (21%) and one out of six girls (17%) used electronic media for less than two hours on each of the previous seven days.⁹
- In 2009, 29% of Australian adolescents spent less than two hours per day using electronic media.¹⁰
- Approximately 30% of pre-school children in 2004 spent more than two hours per day watching television or using other electronic media.¹¹
- Children spend approximately five hours a day sitting at school.¹²
In 2008, just over half (boys 51.8%, girls 55.5%) of primary school children surveyed said they actively commuted to school at least once in the previous seven days.⁹ For many children, sitting in a car is a major part of their daily sitting time.

What are the recommended limits for sitting?

We recommend that parents and carers limit how much time children and young people watch television, use the computer and sit in general to:

- **children aged under two years** – no television viewing or the use of other electronic media (DVDs, computer and other electronic games)⁷
- **children aged two to five years** – less than one hour each day of television viewing and other electronic media (DVDs, computer and other electronic games)⁷
- **children aged zero to five years** – with the exception of sleeping, infants, toddlers and pre-schoolers should not sit, be restrained (e.g., in a high chair) or be kept inactive for more than one hour at a time⁷
- **children aged 5 to 18 years** – less than two hours each day of television viewing, computer use and electronic games, especially during daylight hours.¹

How can I encourage children and young people to sit less and move more?

Watching television, using a computer and playing electronic games usually involve long periods of time sitting. Sitting in a car, for example to and from school, is another big contributor to the amount of time children and young people spend sitting. To reduce the amount of time children and young people spend sitting, it is important to try to limit the amount of time they spend doing these things and encourage them to move more.

There are many ways you can help children and young people to move more. All it takes are a few small, simple changes to daily activities. Below are some tips to help you get started.¹³

Tips for parents and carers

- Limit how much time your child watches television, uses a computer and plays electronic games, for example before or after school (particularly during daylight hours).
- Remove televisions, computers and electronic games from bedrooms.
- Use a timer or an alarm clock to keep track of how much time they spend watching television, using a computer or playing electronic games.
- Limit the number of televisions, computers and electronic games you have at home.
- If you drive your child to and from school every day, try to walk or cycle with them once or twice a week. If you live too far from school for your child to walk, park the car 1 kilometre from school and walk the rest of the way.
- Talk to your child's teacher about setting 'active' homework.
- Think of fun things to do as a family instead of watching television.
- Try to have at least one full day every week where your family doesn't watch television, use a computer or play electronic games.
- You are an important role model to your child, so try to limit how much television you watch and time you spend using a computer.
- Give your child active alternatives. Instead of hiring a DVD or computer game, do something active instead. Use a skipping rope, play Frisbee or go to the local park.
- Give your child a bike and some basic active play equipment, such as a hula hoop or balls.
- Keep a box of active play equipment on hand for when your child says they're bored.
- Don't use movement-based electronic games instead of active play, such as riding a bike.
- Share with other parents ideas for encouraging children to be more active.

Tips for teachers and child care workers

- Teach children about 'selective television viewing' and how they can limit how much television they watch.¹⁴
- In health and physical education classes, include activities that promote the benefits of physical activity and the harm that too much sitting may cause.
- Set 'active' homework for children and incorporate an 'active curriculum' by making opportunities for children to stand in class.
- Encourage children who are driven to and from school each day to speak with their parents about finding more active ways to get to and from school.
- Limit or ban television viewing in child care or after school care.
- Make sure children have opportunities to stand and move around throughout the day.
- Eliminate sitting time in physical education classes. Aim for all students to spend at least 50% of the class in moderate- to high-intensity physical activity.

Want to know more?

For more information on how to sit less and move more, call our Health Information Service on 1300 36 27 87 (for the cost of a local call) or email health@heartfoundation.org.au.

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References

1. Australian Government Department of Health and Ageing. Physical Activity Guidelines. Canberra: Commonwealth of Australia, 2010. Available at: www.health.gov.au/internet/main/publishing.nsf/Content/health-pubhlth-strateg-phys-act-guidelines. Accessed 4 March 2011.
2. Gubbels JS, Kremers S, Stafleu A, et al. Clustering of dietary intake and sedentary behavior in 2-year-old children. *Journal of Pediatrics* 2009; 155: 194-198.
3. Salmon J, Campbell K, Crawford D. Television viewing habits associated with obesity risk factors: a survey of Melbourne school children. *MJA* 2006; 184: 64-67.
4. Zimmerman FJ, Christakis DA. Children's television viewing and cognitive outcomes: a longitudinal analysis of national data. *Archives of Pediatrics and Adolescent Medicine* 2005; 159: 619-625.
5. Hardy LL, Denney-Wilson E, Thrift AP, et al. Screen time and metabolic risk factors among adolescents. *Archives of Pediatrics and Adolescent Medicine* 2010; 164(7): 643-649.
6. Carvalhal MM, Padez MC, Moreira PA, Rosado VM. Overweight and obesity related to activities in Portuguese children, 7–9 years. *European J Public Health* 2006; 17: 42–46.
7. Australian Government Department of Health and Ageing. Physical Activity Recommendations for Children 0–5 years. Canberra: Commonwealth of Australia Department of Health and Ageing, 2010. Available at: www.health.gov.au/internet/main/publishing.nsf/Content/health-pubhlth-strateg-phys-act-guidelines#rec_0_5. Accessed 4 March 2011.
8. Commonwealth Scientific Industrial Research Organisation (CSIRO). 2007 Australian National Children's Nutrition and Physical Activity Survey. Canberra: Commonwealth of Australia Departments of Health and Ageing and Agriculture Fisheries and Forestry, Australian Food and Grocery Council, 2008.
9. Martin K, Rosenberg M, Miller M, et al. Trends in physical activity, nutrition and body size in Western Australian children and adolescents: the Child and Adolescent Physical Activity and Nutrition Survey (CAPANS). Perth: Government of Western Australia, 2008.
10. Morely B, Scully M, Niven P, Wakefield M. National Secondary Students' Diet and Activity Survey, 2009–2010: Main Report. Melbourne: Cancer Council Victoria, 2010.
11. Okely AD, Trost SG, Steele JR, et al. Adherence to physical activity and electronic media guidelines in Australian pre-school children. *J Paediatrics and Child Health* 2009; 45: 5-8.
12. Salmon J, Healy G, Hume C, et al. Associations of sedentary time accumulation with weight status in children. Presentation at the Australian and New Zealand Obesity Society Conference, Melbourne, 2009.
13. National Heart Foundation of Australia. Unplug + Play Parent Campaign web page. Western Australia: National Heart Foundation of Australia, 2010. Available at: www.heartfoundation.org.au/Healthy_Living/Healthy_Kids/Parents_Resources/Unplug_and_Play/Pages/default.aspx. Accessed 10 March 2011.
14. Victorian Department of Health. Kids – 'Go For Your Life'. Melbourne: Department of Health, 2011. Available at: www.goforyourlife.vic.gov.au/hav/articles.nsf/practitioners/Turn_Off_Switch_to_Play?Open. Accessed 4 March 2011.

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