

The Importance of Outdoor & Nature Play

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TV Sunrise



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Presentation

- Concept of play
- Concept of quality play
- Children's obesity, physical activity & sedentary behaviour
- Physical activity & sedentary behaviour guidelines 0-17 years
- Developmentally appropriate experiences 0-17 years
- Importance of outdoor & nature play
- Solutions ?

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The concept of play

- Play has been an elusive concept to define.
- I have argued that **play is any activity which is engaged in for its own sake.***
- **An activity is play if it is valued as an end in itself by the player.***

*Badenoch (1977, 1980, 1993)

*Badenoch (1975 -2010 lecture & workshop series)

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So what?

- Play is different from other human activities on the basis of the **reasons for engaging in the activity.**
 - specific state of mind, approach, or attitude to the activity **while** we play.
 - for the intrinsic rewards contained in the activity itself.

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Ethical implications

- Play is **valued by the player** for the satisfaction gives.
- Can have positive or negative **consequences** for individuals, society or environment depending on the specific play activity.
- Accordingly play **may or may not be valued by others** (parents, carers, teachers, neighbours, councils, governments) **depending on the actual or perceived outcomes** for individuals, society or the environment.

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Children need support to make good play choices

- Ideally over time we want children to make good play choices.
- Initially this requires parents, in partnership with carers, teachers, agencies, governments, to guide and educate children about beneficial forms of play.
- Even after children are able to make rational choices, the same active partners need to encourage & provide opportunities for worthwhile forms of play while discouraging unacceptable forms.

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The concept of quality play

- The notion of quality implies a degree of excellence, something of value. Something we care about. Something worthwhile, useful or beneficial.
- Something good.
- In this sense **quality play** refers to play that is regarded by astute, informed adults as:
 - Valuable
 - Worthwhile
 - Beneficial
 - Useful
 - Good

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What forms of play are worthwhile?

The answer depends on:

- What the outcomes of play are?
- On what basis we decide what is worthwhile?
- For whom?

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Good for what & whom?

- From a parent, teacher, carer, researcher or concerned adult's view **quality play** refers to play activities that **have, or are likely to have, worthwhile outcomes for either the player, society or the environment.**
- For example, running, walking or swimming may **simultaneously** be:
 1. Valued **for its own sake** by a individual **player**
 2. Valued by the **parent** or **teacher** as worthwhile since they have health & well- being enhancing capacities.
 3. Valued by the **medical profession** and **Health and Environment ministers** since, if undertaken as a regular physical activity, they can improve an individual's health & well being, decrease lifetime demand for costly health services & have low environmental impact benefits.

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Proposed definition of quality play

Quality play is any activity engaged in for its own sake that has, or is likely to have, worthwhile outcomes for an individual, society or environment.

Badenoch (2014)

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Play's potential worthwhile outcomes

Depending on the specific activity, play has the potential to make a positive contribution to a child's:

- **Education** by motivating and enhancing learning
Moyles (2006)
- **Development** of their physical, motor, cognitive, language & literacy, creative, social & emotional capacities
Fromberg & Bergen(1998)
Frost, Wortham & Reifel (2005)
- **Health and Wellbeing**
Burdette & Whitaker (2005)
Driver, Brown & Peterson (1991)

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Some Australian issues relevant to play

- Technologically advanced multicultural society
- Highly urbanized communities
- Significant & widespread childhood health issues
- Reduced meaningful contact with nature

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Concerning trends

- Obesity
- Physical inactivity
- Sedentary behaviour
- Limited direct or meaningful contact with nature

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Australian childhood obesity

- 1 in 4 Australian children are overweight or obese
- Australian Institute of Health and Welfare website
<http://www.aihw.gov.au/overweight-and-obesity>
Accessed 6 July 2014
- Between 1985 and 1995 the rate of childhood overweight doubled and obesity tripled in Australia.
 - Unfortunately, overweight and obesity in Australia remains on the rise.
 - Results from the 2007-2008 Australian National Children's Nutrition and Physical Activity Survey indicated that one in four children aged 5-17 years are now overweight or obese.

Dietitians Association of Australia website
<http://daa.asn.au/for-the-public/smart-eating-for-you/nutrition-a-z/childhood-obesity/>
Accessed 6 July 2014

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Are Australian children having enough physical activity?

- It is recommended that children and young people between aged between 5 and 18 years do a minimum of 60 minutes of moderate to vigorous physical activity every day. There are also specific recommendations for infants and younger children.
- **Moderate physical activity** includes brisk walking, bike riding, skateboarding and dancing.
- **Vigorous activities** include playing football and netball which you are activities that make you 'huff and puff'.

<http://www.healthkids.nsw.gov.au/stats-research/physical-activity.aspx>
Accessed 6 July 2014

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Results From Australia's 2014 Report Card on Physical Activity for Children and Youth

- It is estimated that **only one-fifth** of Australian children aged 5-17 years meet the Australian Physical Activity Guidelines.
- Children who accumulate at least 60 minutes of moderate to vigorous physical activity every day are at a lower risk of overweight or obesity, Type II diabetes, metabolic syndrome and other comorbidities; and are more likely to see improvements in aerobic fitness and to experience positive mental health.

Schranz, N., Olds, T., Cliff, D., Davern, M., Engelen, L., et al. (2014)

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Physical inactivity

- Recent surveys show that many children are not meeting the recommendations for physical activity.
- The 2014 *Active Healthy Kids Australia Report Card* rated Australian kids D- for Overall Physical Activity Levels.
- The 2007-2008 *NSW Population Health Survey* found that only about a quarter of children and young people aged between five and 15 years had at least 60 minutes of moderate to vigorous physical activity every day.
- The 2004 *NSW Schools Physical Activity and Nutrition Survey* found that boys in years 6, 8 and 10 were more active than girls and that physical activity declines with age.

<http://www.healthkids.nsw.gov.au/stats-research/physical-activity.aspx>
Accessed 6 July 2014

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Aussie kids graded D- in first ever physical activity report card

- Australian school children rank among the worst in the world for overall physical activity levels, narrowly avoiding a FAIL in a new national report card released on 21 May 2014.
- The inaugural Active Healthy Kids Australia Report Card on Physical Activity for Children and Youth has found **80% of 5-17** year olds are **not** meeting the Australian physical activity guidelines of at least 60 minutes of exercise each day.

Media Release 21 May 2014 Heart Foundation & Active Healthy Kids Australia

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Results From Australia's 2014 Report Card on Physical Activity for Children and Youth

- The purpose of the Australian 2014 Physical Activity Report Card initiative was to assess the behaviours, settings, and sources of influences and strategies and investments associated with the physical activity levels of Australian children and youth.
- In a global study 15 countries were ranked in terms of their overall physical activity for children and youth according to available evidence and expert analysis.
- Australia was ranked equal 11th with 4 other countries, therefore **outranking only one other country**.
- Australia is facing an inactivity epidemic.
- **Evidence suggests that physical activity levels of Australian children remain very low and sedentary behaviours are high despite moderately supportive social, environmental and regulatory environments.**

Schranz, N., Olds, T., Cliff, D., Davern, M., Engelen, L., et al. (2014)

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Results From Australia's 2014 Report Card on Physical Activity for Children and Youth

- Australia is experiencing an "inactivity epidemic," driven in part by new sedentary technologies, perceived lack of support and a lack of engagement with the physical activity guidelines.
- The causes of the inactivity epidemic are multifactorial and include individual behaviors, infrastructures, policies, and cultural practices.

Schranz, N., Olds, T., Cliff, D., Davern, M., Engelen, L., et al. (2014)

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Results From Australia's 2014 Report Card on Physical Activity for Children and Youth

- Among the 12 grades assigned in the Report Card, key grades for Australia include:
- D- for Overall Physical Activity Levels
- B- for Organised Sport and Physical Activity Participation
- D for Active Transportation (such as riding or walking to school)
- D- for Sedentary Behaviours (screen time)

Grades ranged from A+ (best possible grade) to F (fail lowest possible) D- was the second lowest grade possible

Media Release 21 May 2014 Heart Foundation & Active Healthy Kids Australia

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Comments on the physical activity report card results

- "Too many Australian parents believe playing sport is enough to keep their kids healthy."
- "Australia is a sporting nation, and vast numbers of children are involved in some type of organised sport but **this report clearly shows we need to be looking at further ways to keep kids active when they are not on the sports field.**"
- "Things like walking to school, playing outside and turning off televisions and computers also contribute to overall health and physical activity levels – and these things are being forgotten."

Report author Dr Natasha Schranz, University of South Australia
Media Release 21 May 2014 Heart Foundation & Active Healthy Kids Australia

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Comments on the physical activity report card results

- **We know what works. We need high quality, mandatory physical activity in our schools. We need to encourage and support our kids to stay active in everyday life – to be social and play outside, to walk and cycle in their neighbourhoods, do some household chores and limit hours of screen time.**

Associate Professor Trevor Shilton
The Heart Foundation's National Lead on Active Living
Media Release 21 May 2014 Heart Foundation & Active Healthy Kids Australia

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Sedentary behaviour

- A rise in the amount of sedentary or 'still' or sitting time – often spent watching TV, DVDs, surfing the internet and playing computer games – is linked to children and young people becoming overweight or obese, which they can carry through into adulthood.
- It is recommended that children and young people aged between 5 and 18 years should **not spend more than two hours per day on small screen entertainment.**
- However, the 2007-2008 NSW Population Health Survey reported that **nearly half of children and young people aged between five and 15 years spend more than two hours on small screen entertainment each day.**

<http://www.healthkids.nsw.gov.au/stats-research/physical-activity.aspx>
Accessed 6 July 2014

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Australia's physical activity & sedentary behaviour guidelines

Supported by a rigorous evidence review process that considered:

1. The relationship between physical activity (including the amount, frequency, intensity and type of physical activity) and health outcome indicators, including the risk of chronic disease and obesity; and
2. the relationship between sedentary behaviour/sitting time and health outcome indicators, including the risk of chronic disease and obesity.

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National Physical Activity Recommendations for Children 0-5 years

- Being physically active every day is important for the healthy growth and development of infants, toddlers and pre-schoolers.
- For health development in *infants (birth to one year)* physical activity – particularly supervised floor-based play in safe environments – should be encouraged from birth.
- *Toddlers (1 to 3 years) and pre-schoolers (3 to 5 years)* should be physically active every day for at least three hours, spread throughout the day.

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Sedentary Behaviour Recommendations 0-5 years

- *Children younger than 2 years of age should not spend any time* watching television or using other electronic media (DVDs, computer and other electronic games).
- *For Children 2 to 5 years of age*, sitting and watching television and the use of other electronic media (DVDs, computer and other electronic games) should be **limited to less than one hour per day.**
- *Infants, toddlers and pre-schoolers (all children birth to 5 years) should not be sedentary, restrained, or kept inactive, for more than one hour at a time*, with the exception of sleeping.

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Australia's Physical Activity & Sedentary Behaviour Guidelines for Children (5-12 years)

- Being physically active is good for kids' health, and creates opportunities for making new friends and developing physical and social skills.
- These guidelines are for all children aged 5-12 years who have started school, irrespective of cultural background, gender or ability.

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National Physical Activity Recommendations for Children 5-12 years & 13-17 years

- For health benefits, children aged 5–12 years should **accumulate at least 60 minutes of moderate to vigorous intensity physical activity every day.**
- Children's physical activity should **include a variety of aerobic activities, including some vigorous intensity activity.**
- **On at least three days per week**, children should engage in activities that strengthen muscle and bone.
- To achieve **additional health benefits**, children should engage in more activity – up to **several hours per day.**

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Sedentary Behaviour Recommendations 5-12 years & 13-17 years

- To reduce health risks, children aged 5-12 years should **minimise the time they spend being sedentary every day.**
- To achieve this:
Limit use of electronic media for entertainment (e.g. television, seated electronic games and computer use) to **no more than two hours a day** – lower levels are associated with reduced health risks.
- Break up long periods of sitting as often as possible.

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Need for developmentally appropriate physical activity experiences in early years (2-7)

- Fundamental movement behaviours normally emerge & span the early childhood years
 - Running
 - Jumping
 - Throwing
 - Catching
 - Striking
 - Kicking
 - Ball bouncing
 - Climbing
 - Manipulation
- **This is the critical period for motor development upon which more complex motor performances are dependent.**

Gabbard (2004)

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Need for developmentally appropriate experiences in later childhood & adolescence (7-17)

- Later childhood through to adolescence (7-17) is characterized by several growth & development milestones resulting in significant improvements in motor skill performance
- Adolescent growth spurt (increased body size, muscle, strength & cardiorespiratory capacity)
- Increases in motor performance
- Gender-related motor performance differences
- Emergence of sport skill behaviour

Gabbard (2004)

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Benefits of outdoor play

- Larger equipment & spaces facilitate greater range of movement
- Enhances development in ways not feasible in confined indoors
- Provides more opportunities & choices for play
- Both girls & boys engage in more gross motor play outdoors
- Outdoor play spaces develop
 - Physical strength, speed, endurance, power, agility
 - Motor skills
 - Manipulative skills
 - Social skills

Frost, Wortham & Reifel (2005)

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Benefits of outdoor play

- Better suited to messy or loud play
- Reduce logistical problems of transporting sand & water
- Offer wider opportunities for sensory stimulation including sounds, smells textures
- Better accommodates rough-and-tumble, superhero or war play
- Within the relative unconstrained outdoor context, may permit greater freedom of selecting peer interaction
- Offer a wider variety of natural materials and equipment that cannot be used in doors
- Extend opportunities for complexity, challenge, variety & novelty—all necessary to support creativity, learning & development

Frost, Wortham & Reifel (2005);

Benefits of outdoor play

- Encourages increased levels of physical activity and resultant health benefits
- Provides more opportunities & choices for play
- Provide more direct learning experiences about the natural environment
- Encourage different levels of social interaction when participants choose social engagement or being alone
- Provides a context that encourages compromise & collaboration as they become members of a group
- Creates a special context for the transmission of children's culture

Siuss (2005)

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Benefits of connecting children with nature

We gain life by looking at life.
If we see living things we don't feel as if we're living in a vacuum.

Mardie Townsend
Associate Professor, School of Health & Special Development
Deakin University

That sense of aloneness, of lost kinship with the natural world, is central to the argument that.....if we deny children direct experience with nature, we deny them access to a fundamental part of their humanity.

Richard Louv
Author *Last Child in the Woods*

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Benefits of connecting children with nature

- In the past decade, the benefits of connecting to nature have been well documented in numerous scientific research studies and publications.
- Collectively, this body of research shows that children's social, psychological, academic and physical health is positively impacted when they have daily contact with nature.

Natural Learning Initiative. (2012) *Benefits of Connecting Children with Nature*

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Benefits of connecting children with nature

- **Supports multiple development domains.**
Nature is important to children's development in every major way—intellectually, emotionally, socially, spiritually and physically (Kellert, 2005).
- **Supports creativity and problem solving.**
Studies of children in schoolyards found that children engage in more creative forms of play in the green areas. They also played more cooperatively (Bell and Dymont, 2006).

Play in nature is especially important for developing capacities for creativity, problem-solving, and intellectual development (Kellert, 2005).
- **Enhances cognitive abilities.**
Proximity to, views of, and daily exposure to natural settings increases children's ability to focus and enhances cognitive abilities (Wells, 2000).

Natural Learning Initiative. (2012) *Benefits of Connecting Children with Nature*

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Benefits of connecting children with nature

- **Improves academic performance.**
Studies in the US show that schools that use outdoor classrooms and other forms of nature-based experiential education support significant student gains in social studies, science, language arts, and math. Students in outdoor science programs improved their science testing scores by 27% (American Institutes for Research, 2005).
- **Reduces Attention Deficit Disorder (ADD) symptoms.**
Contact with the natural world can significantly reduce symptoms of attention deficit disorder in children as young as five years old (Kuo and Taylor, 2004).
- **Increases physical activity.** Children who experience school grounds with diverse natural settings are more physically active, more aware of nutrition, more civil to one another and more creative (Bell and Dymont, 2006).

Natural Learning Initiative. (2012) *Benefits of Connecting Children with Nature*

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Benefits of connecting children with nature

- **Improves nutrition.**
Children who grow their own food are more likely to eat fruits and vegetables (Bell & Dymont, 2008) and to show higher levels of knowledge about nutrition (Waliczek, & Zajicek, 2006). They are also more likely to continue healthy eating habits throughout their lives (Morris & Zidenberg-Cherr, 2002).
- **Improves eyesight.**
More time spent outdoors is related to reduced rates of nearsightedness, also known as myopia, in children and adolescents (American Academy of Ophthalmology, 2011).
- **Improves social relations.**
Children will be smarter, better able to get along with others, healthier and happier when they have regular opportunities for free and unstructured play in the out-of-doors (Burdette and Whitaker, 2005).

Natural Learning Initiative. (2012) *Benefits of Connecting Children with Nature*

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Benefits of connecting children with nature

- **Improves self-discipline.**
Access to green spaces, and even a view of green settings, enhances peace, self-control and self-discipline within inner city youth, and particularly in girls (Taylor, Kuo and Sullivan, 2001).
- **Reduces stress.**
Green plants and vistas reduce stress among highly stressed children. Locations with greater number of plants, greener views, and access to natural play areas show more significant results (Wells and Evans, 2003)

Natural Learning Initiative. (2012) *Benefits of Connecting Children with Nature*

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Concept & benefits of nature play

Concept of nature play

- Nature play is a sub set of play distinguished by the environmental setting of the activity .
- Nature play can be defined as any activity that is engaged in for its own sake and undertaken in a natural outdoor setting.

Badenoch (2014)

Benefits of nature play

- Children's social, psychological, academic and physical health is positively impacted when they have daily contact with nature.

Natural Learning Initiative. (2012) *Benefits of Connecting Children with Nature*

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Case for active outdoor & nature play

- Active outdoor and nature play can provide early, effective and critically important pathways to a healthier and more meaningful life for children since they can develop physical, motor, social, cognitive, & emotional abilities and provide significant health benefits.

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Some possible solutions

- Children & youth require a multi physical activity approach to achieve and maintain the recommended daily physical activity and sedentary behaviors and their associated & significant benefits
- Participation in organised sport only is not enough
- A more inclusive whole of life physical activity approach is required
- Promotion of regular active outdoor/nature-based play (non organised freely chosen physical activity)

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Some possible solutions

- Promotion of regular active transport (any form of human powered transportation on foot or bicycle, skateboard)
- Limiting sedentary behaviours to recommended levels
- Positive parental physical activity role models & encouragement including shared family physical activity & nature-based activities

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Some possible solutions

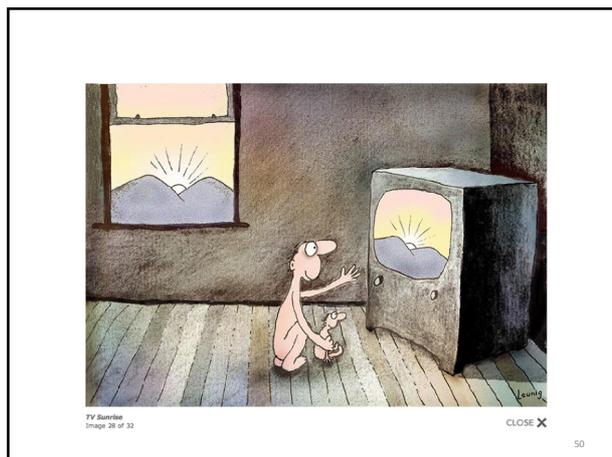
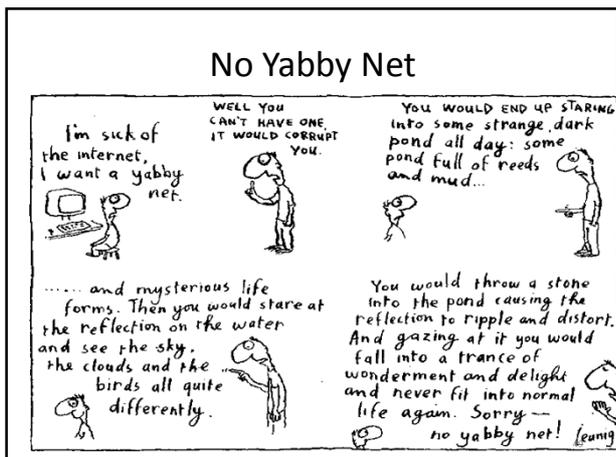
- Developing strong, enduring partnerships with key stakeholders to promote physically active play for all children 0-17, especially for outdoor/nature-based play
- Quality mandatory physical activity in schools
- Quality mandatory physical education in schools
- Quality mandatory outdoor education in schools

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No... you're not forgotten

Australia's Physical Activity & Sedentary Behaviour Guidelines for Adults (18-64 years)

- Being physically active and limiting your sedentary behaviour every day is essential for health and wellbeing.
- These guidelines are for all adults aged 18 – 64 years, irrespective of cultural background, gender or ability.

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Australia's Physical Activity Guidelines for Adults (18-64 years)

- **Doing any physical activity is better than doing none.** If you currently do no physical activity, start by doing some, and gradually build up to the recommended amount.
- **Be active on most**, preferably all, **days every week.**
- **Accumulate** 150 to 300 minutes (2 ½ to 5 hours) of **moderate intensity** physical activity or 75 to 150 minutes (1 ¼ to 2 ½ hours) of **vigorous intensity** physical activity, or an **equivalent combination of both moderate and vigorous activities, each week.**
- Do **muscle strengthening** activities on **at least 2 days each week.**

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Australia's Sedentary Behaviour Guidelines for Adults (18-64 years)

- Minimise the amount of time spent in prolonged sitting.
- Break up long periods of sitting as often as possible.

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