

## Use it or lose it: The benefits of physical activity

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What is this ‘physical activity’ thing people keep talking about? Simply put, physical activity is movement of the body (this may be your upper or lower body or both) which expends energy. It is important to remember that physical activity does not just mean exercise! Physical activity is an ‘umbrella term’ which encompasses a range of domains, such as being active in your leisure-time (like taking the dog for a walk or going to a dance class), walking and cycling for transport (this may be going to the local shops or it may be in an effort to beat the peak hour traffic), being active at work (like lifting boxes or laying bricks) and even undertaking active chores at home such as gardening and vacuuming.

In Australia, it is recommended that adults accumulate 30 minutes of moderate intensity physical activity (equivalent to that of a brisk walk) on most, if not all days of the week. If preferred, this activity may be broken up into three 10-minute bouts, which is good news for busy people! This ‘dose’ of physical activity is the minimum amount required for health benefits and has been shown to prevent a number of chronic illnesses that will be discussed in further detail later in this chapter.

So why has the government spent up big on mass media campaigns such as ‘Life. Be in it’ (thinking back to the 90s — who remembers the couch potato cartoon character Norm who was the face of that campaign?), and more recently the ‘Swap it, don’t stop it’

campaign (those balloon characters that highlight that you do not need to stop enjoying things ... just swap them for more healthy options)? It is because only about half of all Australian adults meet the physical activity recommendations and thus physical inactivity is one of the leading causes of disease burden in Australia, contributing to 1.9 million deaths each year worldwide<sup>1</sup> and costing the economy billions of dollars annually. In fact, the estimated cost of physical inactivity in 2008 in Australia was \$13.8 billion.<sup>2</sup>

### **Don't worry, be active: Benefits of an active lifestyle**

I often look at the people walking or jogging on the beach and wonder 'What is their main motivation for being active?' Is it to manage their weight? Or is it to get fit for a fun run? Are they active for the health of their heart or for managing stress? Since the list of benefits of being physically active is extremely long, encompassing physical, mental, social, cognitive and emotional health, here we will discuss just a few.

#### ***Weight loss and management***

Physical activity has been shown to have positive effects on weight loss and weight management. In fact, research has demonstrated a modest amount of weight loss from participation in regular walking.<sup>3</sup> It should be highlighted, however, that the greatest benefits in terms of weight loss have been realised by combining a healthy, low calorie diet along with regular physical activity. Since it has been predicted that by 2025, 85% of men and 75% of women in Australia will be overweight or obese,<sup>4</sup> and that being overweight increases your risk of other serious diseases such as type 2 diabetes and heart disease, this provides good reasons to start eating right and get walking! However, it is important to remember that even in the absence of any weight loss, physical activity has direct benefits on a range of other health outcomes, so stick with it — even if you do not see a big drop in kilos, it is still doing you good.

### ***Reducing the risk of type 2 diabetes***

Diabetes has become a pandemic as it affects more than 360 million people worldwide, and the prevalence of the disease has been predicted to increase by more than twofold by 2030.<sup>5</sup> If left untreated, type 2 diabetes can cause nerve damage (producing tingling and burning pain through limbs), loss of eyesight and kidney damage. It is well recognised that physical activity plays an important role in the prevention and management of type 2 diabetes. For example, lifestyle programs involving moderate-intensity exercise (like brisk walking, swimming, cycling) and a low-fat diet can reduce the risk of developing type 2 diabetes by nearly 60% among those at high risk for the disease.<sup>6</sup> Thus, in order to prevent the onset of type 2 diabetes, adults should undertake the ‘dose’ of physical activity described for general health (30 minutes of moderate intensity physical activity on most, if not all days of the week). Further, undertaking strength training in conjunction with aerobic activities such as walking or cycling has been shown to provide additional benefits for those with type 2 diabetes.<sup>7</sup>

### ***Benefits for your heart***

Heart disease is Australia’s biggest killer, the cause of 21,708 (15%) deaths in Australia in 2010.<sup>8</sup> A large body of research, dating back to the 1950s has shown that physical activity is good for the heart, reducing the risk of coronary heart disease as well as premature mortality.<sup>9</sup> Evidence shows that moderate-intensity physical activity (including walking) confers these benefits, although additional benefits are seen by incorporating some form of vigorous physical activity into your weekly routine — for example, dancing, swimming, running, playing basketball, aerobics. It is best to get clearance from your GP prior to participating in vigorous-intensity activities.

### ***Improving bone health***

As we get older, our functional ability (being able to do day-to-day activities such as hanging out the washing, picking up the kids/grand-

kids and walking to the shops) decreases, making it more difficult to live an independent and functional life. In order to improve and prolong functional ability, leading an active life is imperative. Physical activity helps reduce the risk of frail bones (osteoporosis) as well as age-related risks such as falls and fractures.<sup>10</sup> As it has been estimated that one in three men and two in three women will have an osteoporotic fracture in their lifetime, the promotion of physical activity that promotes the building and strengthening of bone across the lifespan is essential. Activities that are particularly important in reducing the risk of osteoporosis include weight-bearing activities such as walking, running, and strength training. So try to incorporate these kinds of activities into your lifestyle a few times a week.

### ***Reducing the risk of some cancers***

According to the Australian Institute of Health and Welfare, by age 85, one in two men and one in three women in Australia will have been diagnosed with cancer in their life.<sup>11</sup> Physical activity has been linked to a reduced risk of certain cancers, including breast and colon cancer. Thus, undertaking a minimum ‘dose’ of physical activity required for general health (at least 30 minutes of moderate-intensity physical activity most days of the week) will significantly reduce your risk of both colon and breast cancer.<sup>12</sup>

### ***Improving your mental health***

Depression and anxiety are Australia’s most debilitating illnesses,<sup>13</sup> affecting both men and women, with nearly 20 percent of Australian women suffering from depression in their lifetime.<sup>14</sup> Although these mental illnesses are often undiagnosed and untreated, a large body of research has highlighted the importance of being active for mental health benefits. In order to treat and manage depressive symptoms, it has been suggested that adults undertake physical activity of any intensity for recreational purposes.<sup>15</sup> Activities may include walking, jogging, going to the gym, dancing, swimming, boxing and yoga (although there are plenty more options out there — all depending on one’s personal

preference). As being active with others may provide additional benefits for social and emotional wellbeing, it may be a good idea to grab an exercise buddy from time to time.

### ***Environmental benefits***

There are obvious environmental benefits of physical activity, particularly for substituting active transport (walking or cycling to get from place to place) for some part of car travel. This may include shorter trips such as walking to the bus stop or longer trips such as cycling to work or to friends' places. Trying to incorporate more active travel into your week will help with reducing carbon emissions from motorised vehicles and thus is both practical and a good motivator for 'green' minded souls. So dust off your old bicycle and give active transport a go!

### **'I don't have a gym nearby, none of my friends do it, I mean I'm too busy for exercise ...' Barriers or excuses?**

There are a number of reasons why people do not participate in regular physical activity. The most commonly reported reason for both men and women is ... you guessed it ... having a lack of time. Women often suggest that they do not have time to be active as they have family responsibilities (such as looking after children, cooking and cleaning) that take priority. For men, their lack of time is often reported to be related to working long hours. However, what we are seeing more and more is an increase in the time adults spend in screen-based entertainment during their leisure-time (watching television, using the computer, tablets or smart phones), with estimates that Australian adults spend approximately three hours a day watching television.<sup>16</sup> So, if time limitations are the reason why most adults are not physically active, yet they spend 3 or more hours a day watching television, is lack of time really a barrier or is it just an excuse?

Other commonly reported barriers to being physically active include lack of motivation/laziness, not having anyone to be active

with, having a lack of facilities in the neighbourhood, and poor weather. Think about your number one reason for not being physically active last week. Was it really a barrier that was unable to be overcome? Or was it really an excuse? As most barriers to being active are modifiable (we can change them!), the following section outlines a few practical tips on how to overcome each of the barriers mentioned above.

### *'I don't have time ...'*

If you are a mother with young children, it can often be a major hurdle to just get the shopping or cleaning done in the week, let alone find a babysitter and fit some physical activity into your life. There are now a number of different 'mums and bubs' classes located in urban and rural areas in Australia that allow you to exercise in a supportive group environment with your baby at your side. This is perfect for new mums who need a bit of motivation or social interaction, or just want to try something new. A quick search on the web will help you locate your nearest class.

For those workaholics who find it impossible to be active after work, holding walking meetings in working hours is a strategy becoming increasingly common. You could also utilise active transport by cycling or walking to and/or from work or even park the car 15 minutes away from your office and walk the rest of the way. Since most people currently work in sedentary jobs (such as sitting in offices), it makes sense to take your lunch break to go for a walk, jog or even a quick workout. This also helps to refresh your mind! Remember, you only need to find 30 minutes a day and this can be accumulated over two to three bouts. So, if you manage to watch the news in the evening, perhaps podcast it and listen to it on a walk or run instead.

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#### **Case study: John**

Working long hours in a law firm in the city, John spent most of his day sitting at

his desk in his office. He would travel to work by car each day, taking about 45 minutes in bumper-to-bumper traffic. By the time he arrived home he would feel stressed and exhausted. Too tired to cook, he would eat take-away most nights.

Within three months of working in this job John had gained 8 kg. He also started suffering back pain, linking it to the hours he spent sitting. He began to feel unhappy with himself and knew that his lifestyle needed to change. He decided to dust off his bike and start riding to work three days a week. Although being a cyclist on the road was a little intimidating at first, John researched the cycling paths he could use to get to work and found the safest route. Within a few weeks he started feeling better about himself, his back pain had gone and being full of energy again he started to cook healthy meals at nights. He lost a few kilograms which he was stoked about ... but the best thing of all was that it was actually quicker for him to cycle to work than it was to drive!

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### ***'I'm not motivated ...'***

One way to increase your motivation to be physically active is to remember *why* you need to be active. You might like to review some of the physical and mental health benefits of physical activity that were discussed earlier in this chapter. Secondly, scheduling in times for physical activity in your diary/schedule is a great way to ensure that you meet the guidelines each week as it helps you prioritise physical activity in your life, holding you accountable. You should approach this 'blocked out' physical activity time the same way you would a meeting or appointment — aim to be on time with no cancellations, and schedule other activities (such as dinner with friends) around your 'physical activity' time. Thirdly, there is now good evidence to suggest that goal-setting and self-monitoring are effective strategies for increasing adherence of physical activity programs/routines. This essentially requires you to write down your goal (it is very important that you commit these to paper) and monitor this weekly or fortnightly by recording each time that you are active. Your goal might be 'to walk every night after work for 30 minutes' or perhaps 'to run in your half hour lunch break three times per week and park your car 15 minutes away from your office on two days'. Your goals should be achievable and realistic and you may like to gradually work your

way up to meeting your goals. There are plenty of smartphone apps that can help you set and monitor your physical activity goals (such as RunKeeper or Map My Fitness); however, pen and paper is just as useful if you are not keen on technology.

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**Example – Weekly goal: Be active for 30 minutes a day on five days**

Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
Walk after work	Cycle to work	Swim while kids at swimming lessons	Walk in lunch break		Spin class with Pam	

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***‘I have no one to be active with ...’***

No one to be active with? Why not join a walking group? There are plenty of organised walking groups in rural and urban neighbourhoods — and if there isn’t one in your local area, you could always organise your own. Alternatively, you might like to join the local gym where they offer a range of exercise classes, catering for all abilities and levels of fitness. If you have a dog, remember they need to be walked regularly too. They are a great exercise companion and an excellent motivator for getting outside even when it is a little cold or dark. If you have a partner or kids, heading out on an evening walk is a great way to catch up on the events of your day and spend some quality time together. Finally, you may like to ask your neighbour if they are interested in starting a weekly walking (or jogging/cycling) routine with you. Once you point out all the benefits to them I am sure they would be keen to start!

***‘There are no facilities in my neighbourhood ...’***

No gym? No worries! There are plenty of other options out there for getting active. First, try a Google maps search of your local neighbourhood and pick out all the local parks, green spaces, walking tracks, rivers, beaches and shops. From there, you can develop your new favourite walking or running route, or you may like to try a different route each week. Exercising in parks can be a

fantastic way to relax and unwind ... blue skies, birds and the smell of freshly cut grass! If you are keen on getting back to nature, put on some relaxing music and try yoga or stretching, sit-ups or lunges. Walk or run a lap of your local oval, and then try and beat your time the next time you head there.

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### Case study: Angie

Angie was a stay-at-home mum, living in the outer suburbs. After giving birth to her second child she experienced postnatal depression. Looking after a toddler and a newborn baby, as well as keeping the household was proving to be a great challenge. Her doctor suggested that she undertake some form of physical activity to help manage the depressive symptoms. However, Angie could not see how exercising could be possible since she could barely fit time in for a shower, let alone a 'workout'.

Knowing that she had to 'find the time' for her own mental and physical health, one morning Angie put the kids in the pram, packed a spare bottle and headed out for a walk around the neighbourhood. As she pushed the pram she looked around and noticed a few other women in the neighbourhood doing the same.

When she got back home she felt good. She had more energy to work around the house and felt a sense of achievement for getting outside and being active. The next morning she did the same thing, knowing that a morning walk just had to become a part of her daily routine. She spoke to the other mums walking around the neighbourhood and they decided to start up their own "mums and prams walking club". Six months later and the club was still meeting each morning. The mums in the club said they liked the opportunity to chat with other mums while they walked, as well as the fact it got them out of the house. The physical and mental health benefits were just seen as an added bonus!

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### *'It's raining, it's pouring ...'*

This may come as a surprise ... but we are water resistant! If it is raining you can always grab a raincoat and take a walk around the block. You could also chat to those working at the local neighbourhood/community house since they often run indoor activities such as yoga, belly dancing or even darts (although it may be questionable how much energy is exerted playing darts!). If you do not want to leave your house when it is cold and wet outside you could buy some free weights (or as my sister used to do, use the two-kg dog food cans as weights!) and start a strength training routine. Alternatively, if you prefer, you could dance around the

house, perform squats in front of the television, or purchase a fitness DVD (there are literally thousands of fitness DVDs out there for all ages, interests and abilities).

### **Sitting too long: An independent risk factor for poor health?**

Prolonged sitting (commonly termed ‘sedentary behaviour’) is defined as sitting behaviours that expend very little energy, such as watching television, sitting at the computer, sitting while travelling on transport. Recent research has suggested that prolonged sitting is independently linked to an increased risk of cardiovascular disease (like coronary heart disease), type 2 diabetes and premature mortality — that is, independent of how much physical activity you do. For example, if you sit in an office all day at work (eight hours), even if you go for a run every night after work, you are still at an increased risk of those chronic illnesses because of the time you spend sitting each day. Furthermore, a link has also been found between prolonged sitting (in particular, television viewing) and increased risk of depression. However, research is still in its infancy and thus it is still the chicken or the egg debate (for example, does watching television increase your risk of depressive symptoms, or do those experiencing higher levels of depressive symptoms tend to watch more television?). Regardless, it is important that we do not just aim to increase our daily physical activity, but also aim to reduce prolonged daily sitting.

#### ***Tips to stop sitting and start standing***

Since a large proportion of the adult population spend long hours sitting in front of computers in their workplace, one increasingly popular strategy to reduce sitting time has been the implementation of standing desks. Standing desks provide a platform for your computer which can be moved up and down easily. A number of workplaces (including my own workplace) have converted employees’ traditional ‘sitting’ desks to ‘standing desks’, which allows workers, for example, to stand up when responding to

emails in the morning and then sit down in the afternoon when they may be feeling a little more tired. Alternatively, if your workplace will not implement standing desks, you can always make your own by propping up your computer and keyboard with boxes. Further, standing meetings are becoming a popular alternative to the traditional 'sitting' meetings and have been argued to help prolong the attention of attendees.

*Take a break:* It is important that you break up your sitting time throughout the day as breaking up your sitting time every 20 minutes has been shown to reduce your risk of type 2 diabetes and overweight/obesity.<sup>17</sup> This can include simple strategies such as standing up and stretching every 20 minutes, walking to the printer each time you print a document or having a small glass of water next to you that will require you to get up and fill the glass more often compared to a large bottle.

*Multi-task:* Don't just sit and watch television for hours in the evening. This is the 'prime time' to get things done like ironing or cooking and preparing lunches for the following day. These can all be done while watching your favourite television program ... standing up! Additionally, you should make an effort to get up during the television advertisement breaks, or better yet start an evening exercise routine that you can do while watching television (see also the tips for getting active when the weather is poor).

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### Case study: Evan

After years of begging his parents for one, Evan was 13 when he received his first video game console. Each day he would get home from school and play his favourite video game until dinner was served. The family rule was that no video games were allowed to be played after dinner and Evan was OK with that so long as he had his three hours of 'play time' after school. Evan's mother became concerned one day when she watched a TV news report about the negative effects that sitting for long periods had on health. She spoke with Evan about this and asked him to suggest some ways that he could reduce the time he spent sitting after school.

After much thinking, Evan suggested that he could break up the time he played his video game by having a designated 'half-time outside break', whereby he had to go

and be active outside for half an hour after one hour of video gaming. Evan's mother felt this was a good idea, but was still concerned about the prolonged time that he would be sitting. So, in addition to this, Evan suggested that he could set a timer and stand up every 20 minutes while he played his video game. His mother agreed with this and Evan was happy as he could still play his video games after school.

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## **Final thoughts ...**

An active lifestyle is important for both good physical and mental health. However, you only need to walk briskly for 30 minutes a day to gain health benefits (and this can be broken up into three 10-minute bouts). Adding some more vigorous activity into your week will also offer additional benefits for your heart, although you should get your GP's clearance before starting. There are lots of ways you can lead an active lifestyle and not just during your leisure time. Being active on your commute to work, around the house and even within your job can count towards meeting the physical activity guidelines. On the flip side of the coin, it is also important to reduce your daily sitting time by breaking up those long hours that you spend in front of the computer or television with 'active breaks'. This can be as simple as standing up and stretching, or going for a walk to the printer at work. As there is a growing recognition that 'some is better than none' in regards to physical activity — even if it is light intensity — it is important to view physical activity as an opportunity. For example, next time you are at the train station and you have the option of taking the stairs instead of the escalator, take the active option. These small changes in your lifestyle will have a big impact in the long term. Remember to stop making excuses and start taking steps towards an active, healthier life. In other words: Sit less, stand more and move more.

## Further reading

BE Ainsworth and CA Macera (eds.), *Physical activity and public health practice*, Taylor & Francis, Boca Raton, FL, 2012.

Australian Government, 'Swap it, don't stop it', 2012, retrieved 14 December 2012 from <http://swapit.gov.au/>

## Endnotes

- 1 World Health Organization (WHO), 'Global strategy on diet, physical activity and health', WHO Health Promotion Branch, Geneva, 2003.
- 2 Medibank Private Ltd, 'The cost of physical inactivity', Medibank Private Ltd, Australia, 2008.
- 3 CR Richardson et al., 'A meta-analysis of pedometer-based walking interventions and weight loss', *Annals of Family Medicine*, vol. 6, no. 1, 2008, pp. 69–77.
- 4 MM Haby et al., 'Future predictions of body mass index and overweight prevalence in Australia, 2005–2025', *Health Promotion International*, vol. 27, no. 2, 2012, pp. 250–260.
- 5 S Wild et al., 'Global prevalence of diabetes: estimates for the year 2000 and projections for 2030', *Diabetes Care*, vol. 27, no. 5, 2004, pp. 1047–1053.
- 6 WC Knowler et al., 'Reduction in the incidence of type 2 diabetes with lifestyle intervention or metformin', *New England Journal of Medicine*, vol. 346, no. 6, 2002, pp. 393–403.
- 7 SR Colberg et al., 'Exercise and type 2 diabetes: American College of Sports Medicine and the American Diabetes Association: joint position statement. Exercise and type 2 diabetes', *Medicine and Science in Sports and Exercise*, vol. 42, no. 12, 2010, pp. 2282–2230.
- 8 Australian Bureau of Statistics (ABS), 'Causes of death, Australia, 2010', ABS, Canberra, 2010.
- 9 JN Morris et al., 'Coronary heart-disease and physical activity of work', *Lancet*, vol. 265, no. 6796, 1953, pp. 1111–1120.
- 10 EW Gregg et al., 'Physical activity, falls, and fractures among older adults: a review of the epidemiologic evidence', *Journal of the American Geriatrics Society*, vol. 48, no. 8, 2000, pp. 883–893.
- 11 Australian Institute of Health and Welfare (AIHW) & Australasian Association of Cancer Registries, 'Cancer in Australia: an overview, 2010', AIHW, Canberra, 2010.
- 12 IM Lee, 'Physical activity and cancer prevention — data from epidemiologic studies', *Medicine and Science in Sports and Exercise*, vol. 35, no. 11, 2003, pp. 1823–1827.
- 13 TB Ustun and S Chetterji, *Global burden of depressive disorders and future projections*, BMJ Books, London, 2001.

- 14 J Byles et al., *Use and costs of medications and other health care resources: findings from the Australian Longitudinal Study on Women's Health*, Australian Government Department of Health and Ageing, Canberra, 2008.
- 15 M Teychenne et al., 'Physical activity and likelihood of depression in adults: a review', *Preventive Medicine*, vol. 46, no. 5, 2008, pp. 397–411.
- 16 Organization for Economic Co-Operative and Development (OECD), *OECD Communications Outlook 2007*, OECD, Paris, 2007.
- 17 GN Healy et al., 'Breaks in sedentary time: beneficial associations with metabolic risk', *Diabetes Care*, vol. 31, no. 4, 2008, pp. 661–666.