

Costs of Physical Inactivity

Physical inactivity is detrimental to the health and wellbeing of Australians. It is second only to tobacco smoking as the leading contributor to the burden of disease in Australia, and it is the leading contributor to disease in women.^{1,2}

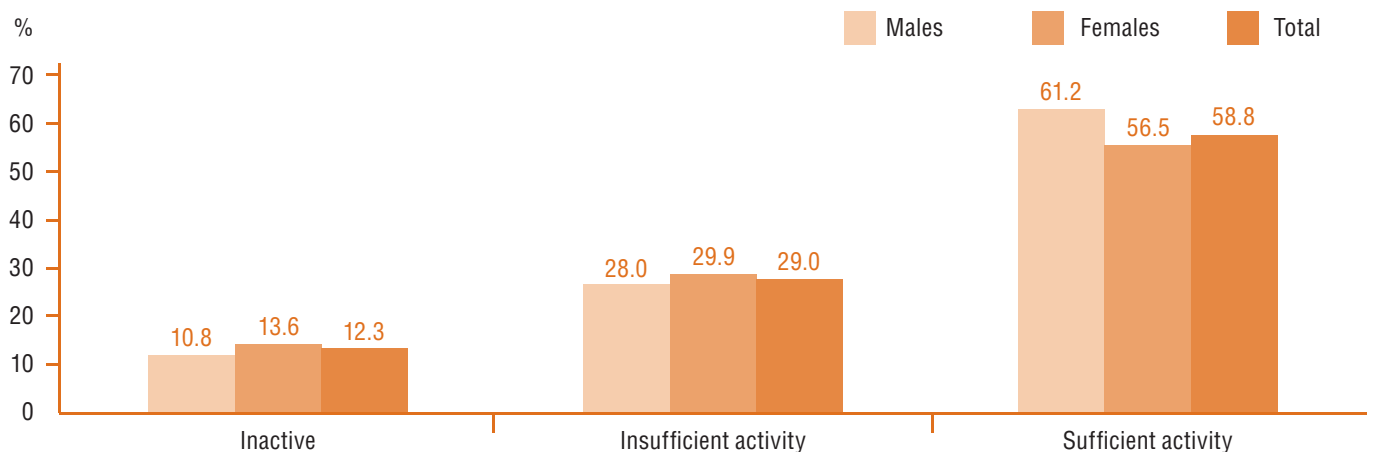
Conversely, participation in sport and physical activity leads to a range of health, social, economic and environmental benefits for individuals and communities. These benefits are widely acknowledged and in recent times, many groups and governments have aimed to increase the participation of Australians in physical activity.

Physical activity levels of Western Australian adults

In 2006, just under half (41.3%) of Western Australians aged 18 years and over did not meet the recommended level of at least 30 minutes of moderate intensity physical activity on most days of the week.^{3,4} Note that the recommended level of physical activity is frequently interpreted as 150 minutes of moderate activity over at least five sessions.⁵

In 2006 more than one-tenth (12.3%) of Western Australian adults were inactive while 29.0% participated in levels of activity that were insufficient for health benefits.⁶

Physical activity levels of Western Australian Adults – 2006⁷



National physical activity recommendations for children and young people state that they should participate in at least 60 minutes (and up to several hours) of moderate- to vigorous-intensity physical activity every day.⁸

COSTS OF PHYSICAL INACTIVITY

Health costs^{9,10, 11}

Physical inactivity is estimated to cause two-million deaths worldwide annually. Globally, it is estimated to cause about 10–16% of cases each of breast cancer, colon cancers and diabetes, and about 22% of ischemic heart disease.

Physical inactivity increases the risk of a range of chronic diseases including cardiovascular disease and type-2 diabetes. In addition it is associated with higher overall death rates for adults at any age.

Costs of Physical Inactivity

Physical inactivity is a high risk factor for the following health problems:

Coronary heart disease;
 Stroke;
 Type-2 diabetes;
 Colon cancer;
 Breast cancer;
 Depression;
 High blood pressure;
 High cholesterol levels;
 Excess weight;
 Obesity;
 Musculoskeletal disorders; and
 Atherosclerosis.

Burden of disease and injuries attributable to physical activity

Physical inactivity was responsible for 6.6% of the total burden of disease and injury in Australia in 2003. Ischemic heart disease, type-2 diabetes and stroke accounted for more than four-fifths (84.0%) of this burden. Most of the conditions attributable to physical activity were associated with high mortality, with two thirds (67%) of the burden due to fatal outcomes.¹²

In 2003, a total of 13,491 deaths, or one-tenth (10.2%) of all deaths were attributable to physical inactivity. Of these, 8,739 (64.8%) were due to ischemic heart disease.¹³

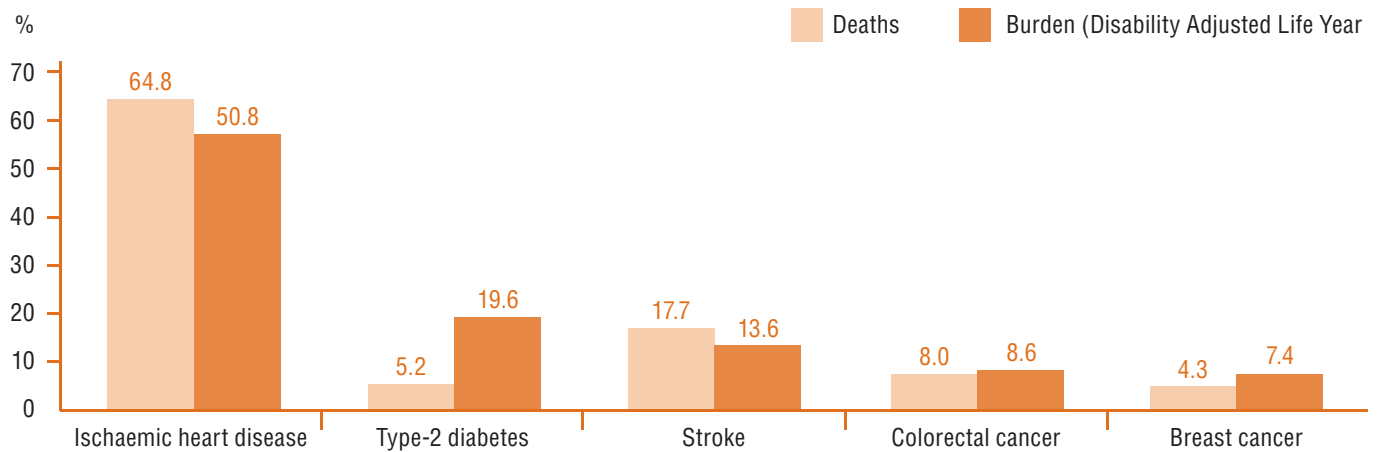
Deaths and burden attributable to physical inactivity by specific cause: Australia – 2003¹⁴

| Specific cause | Deaths | Burden (DALY) ^(a) |
|---------------------------|---------------|------------------------------|
| Ischemic heart disease | 8,739 | 88,617 |
| Type-2 diabetes | 704 | 34,132 |
| Stroke | 2,390 | 23,742 |
| Colorectal cancer | 1,074 | 14,978 |
| Breast cancer | 584 | 12,962 |
| Total attributable | 13,491 | 174,431 |

(a) Disability Adjusted Life Year (DALY) describes the amount of time lost due to premature death plus years of 'healthy' life lost due to disability.

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**Proportion of deaths and burden attributable to physical activity:
Australia – 2003⁵**



It is thought that physical inactivity causes around one-fifth of all colon cancers in the population, indicating a strong role for primary prevention.¹⁶

Economic costs

A 2000 report estimated the annual direct health care cost attributable to physical inactivity at about \$377 million per year for six diseases (\$161 million for coronary heart disease, \$28 million for type-2 diabetes, \$16 million for colon cancer, \$101 million for stroke, \$16 million for breast cancer, and up to \$56 million for depressive disorders). This is considered a conservative estimate and it is likely that the true costs of inactivity are substantially larger than the estimated \$377 million.¹⁷

Another report in 2007 estimated that the direct health care cost of physical inactivity was \$1.5 billion. The direct health care cost was estimated to be 17% of the total health cost of seven conditions – coronary heart disease, stroke, type-2 diabetes, breast cancer, colon cancer, depression and falls. The \$1.5 billion cost refers to direct health expenditure, in the public and private sectors, for the prevention, diagnosis and treatment of medical conditions attributable to physical inactivity.¹⁸

Environmental costs

Physical inactivity has an environmental impact, with increased car use causing a decline in levels of walking and cycling for transport. Car use creates more greenhouse gases, pollution and traffic congestion.¹⁹

Indirect costs

Indirect costs, including time off work and the social costs of inactivity would more than double the direct health care costs.²⁰

Costs of obesity

Physical inactivity is a strong risk factor for obesity. It is estimated that the total economic cost of obesity in Australia, including both financial costs (\$3.767 billion) and lost wellbeing (\$17.2 billion), was \$21.0 billion in 2005.²¹

Obesity is linked to increased absenteeism and decreased productivity.²²

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Endnotes

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- ⁴ Ibid. p17.
- ⁵ Ibid. p17.
- ⁶ Ibid. p22.
- ⁷ Ibid. p22.
- ⁸ Department of Health and Ageing. Australia's Physical Activity recommendations for children and young people. Viewed 27/05/2008. <http://www.health.gov.au/internet/main/publishing.nsf/Content/health-pubhlth-strateg-active-recommend.htm>
- ⁹ World Health Organisation. Physical activity. Viewed 06/05/2008. <http://www.who.int/dietphysicalactivity/publications/facts/pa/en/index.html>
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- ¹¹ Bauman, A., Bellew, B., Vita, P., Brown W., Owen, N. (2002). Getting Australia Active, National Public Health Partnerships, Melbourne. Viewed 26/05/2008. <http://www.nphp.gov.au/publications/sigpah/gaa.pdf>
- ¹² Begg S, Vos T, Barker B, Stevenson C, Stanley L, Lopez AD, 2007. The burden of disease and injury in Australia 2003. PHE 82. Canberra: AIHW. p81-82. <http://www.aihw.gov.au/publications/hwe/bodaiia03/bodaiia03.pdf>
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