

Health research and you

Diabetes



The disease

Every day 275 Australians develop diabetes, making it Australia's fastest growing chronic disease. Each year the number of new cases of diabetes in Australia would fill the Melbourne Cricket Ground. There are approximately 1.5 million Australians with diabetes and, unfortunately, half of these people are unaware of their condition.

In people with diabetes, blood glucose levels are higher than normal because the body does not produce enough insulin and cannot use insulin properly. Insulin is a hormone needed for glucose to enter the cells and be converted to energy. There are two main types of diabetes – type 1 and type 2. There is no cure for diabetes.

Why invest?

Diabetes is the sixth leading cause of death in Australia. Access Economics has estimated the cost of diabetes in 2005 to have been \$10.3 billion. These costs include health care and lost productivity due to illness and premature death.

Research into diabetes has the potential to reduce this burden substantially. For example, improving blood glucose control for patients not currently controlled has the potential to prevent over 4000 cases of diabetes-related visual impairment by 2025 – a return of \$7.6 billion.

SOURCE: ACCESS ECONOMICS "THE ECONOMIC COSTS OF OBESITY" (2006) AND "EXCEPTIONAL RETURNS" (2008)

Who benefits?

Edward Perry has had type 2 diabetes for 10 years. He recently took part in the FodPad Clinical Trial with the Podiatry Department at Westmead Hospital, Sydney after suffering from diabetes-related foot pain for the past few years. Using specialised equipment, including an ultrasound machine, researchers discovered that Edward had no cushioning between the bones and skin on the soles of his feet.

This problem meant that he was unable to stand for longer than five minutes or walk long distances, and combined with limited circulation was an obvious cause of his pain. The shoes and orthotics fitted during the FodPad trial vastly reduced the pain, improved foot comfort and standing stamina and allowed Edward to walk further. The FodPad Clinical Trial was sponsored by the Diabetes Australia Research Trust.

Diabetes and you

Type 2 diabetes is the most common form of diabetes representing more than 85% of persons with diabetes in Australia. Type 2 diabetes is the result of a combination of both genetic and environmental factors and there is no cure for it.

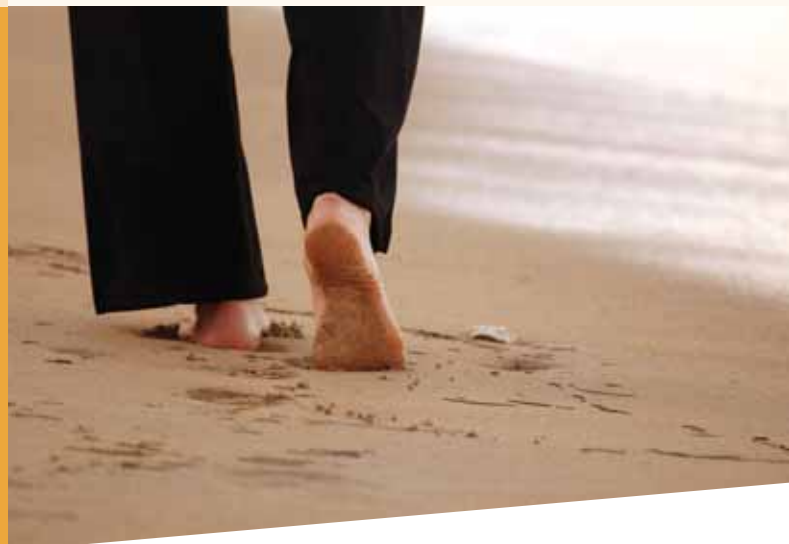
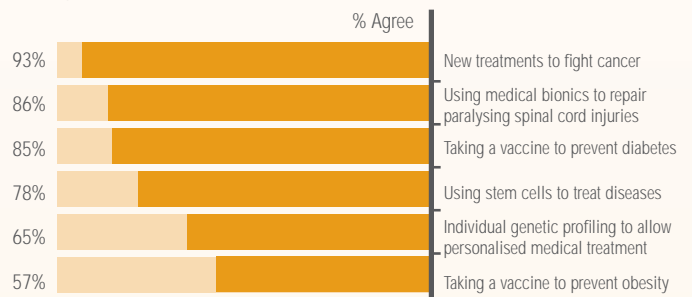
People at risk of type 2 diabetes can delay and even prevent getting it by following a healthy lifestyle, including regular physical activity, making healthy food choices and reducing the size of their waistline.

Your say

Research Australia's Public Opinion Poll 2007, conducted by Crosby Textor, showed diabetes was a major health priority for Australians.

85% of respondents thought that a vaccine for diabetes was a priority for taxpayer-funded research.

Following is a list of possible developments as a result of health and medical research. Given taxpayer money might be used to fund these developments, please rate whether you strongly agree, somewhat agree, neither agree nor disagree, somewhat disagree or strongly disagree with these possible developments as a result of health and medical research.



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Investment in diabetes research

The Australian Government's National Health and Medical Research Council (NHMRC) funds a considerable amount of research into diabetes. In 2007, the NHMRC provided \$42 million to diabetes research – with Type 2 diabetes the most significant area of research, followed by Type 1 and diabetic nephropathy.

SOURCE: NATIONAL HEALTH AND MEDICAL RESEARCH COUNCIL

Funding also comes from private and philanthropic sources. Diabetes Australia invests over \$3.5 million into research through the Diabetes Australia Research Trust (DART). DART was established in 1987 and supports Australian researchers, providing more than 50 grants each year. DART relies on support from corporations and individuals.

New discoveries

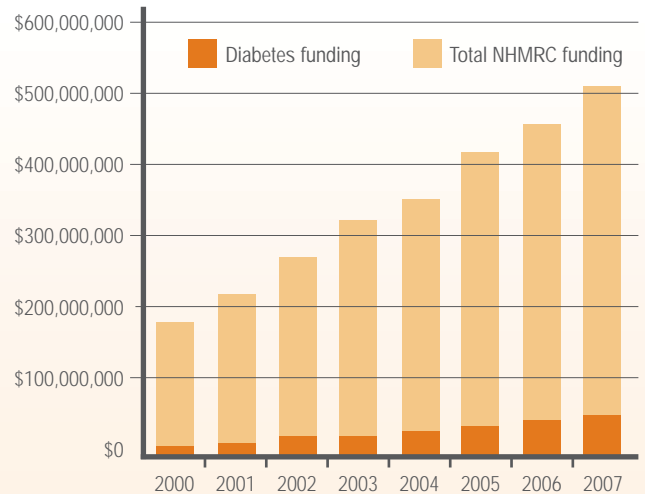
Research into diabetes is driven by the need to find a cure and to improve management of the condition for people living with diabetes.

Australian researchers are working hard on these research questions. Notable projects include the two recent winners of the DART Millennium Awards, which provide \$150,000 grants for up to two research projects to be conducted over two years. This year Professor David James from the Garvan Institute and Associate Professor Robyn Slattery from Monash University won the awards.

Professor James will use the funding to study the mechanism of insulin resistance. This should help to identify people at risk of type 2 diabetes and prevent the onset of insulin resistance.

Professor Slattery's work is seeking to better understand 'T' cells and their role in type 1 diabetes, hopefully leading to genetic screening to identify children at risk of developing type 1 diabetes.

NHMRC Diabetes Research Funding



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Produced with the support of Diabetes Australia



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