

# Study reveals substantial reductions in years lived without disability for men, women with diabetes

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New research published in *Diabetologia* (the journal of the European Association for the Study of Diabetes [EASD]) shows that men and women with diabetes (both types) face not only reduced overall life expectancy, but also higher numbers of years living with disability compared to those people without diabetes. The research is by Associate Professor Dianna Magliano and Dr Lili Huo, Baker IDI Heart and Diabetes Institute, Melbourne, Australia, and colleagues.

There are more than 400 million people with diabetes worldwide, with almost all countries reporting sharp increases in total cases in recent decades. Around one third of young people aged 25 or under are predicted to develop diabetes at some point in their lives. However due to treatment advances, mortality rates from diabetes are decreasing. The rising prevalence, together with the improvement in longevity, has prompted a greater emphasis to be placed on the health-related quality of life in people with diabetes.

In this study, the authors used data from the Australian Diabetes, Obesity and Lifestyle study to determine diabetes rates in Australia, and disability data was used from the 2012 Australian Survey of Disability, Ageing and Carers (SDAC). Mortality data were available by linking the National Diabetes Service Scheme to National Death Index for diabetes and from standard national mortality datasets for the general population. The authors then produced estimates on both [life expectancy](#) (LE) and

disability-free life expectancy (DFLE).

The estimated LE and DFLE at age 50 years were 30.2 and 12.7 years, respectively, for men with diabetes, and the estimates were 33.9 and 13.1 years, respectively, for women with diabetes. The estimated loss of LE associated with diabetes at age 50 years was 3.2 years for men and 3.1 years for women, as compared to their counterparts without diabetes.

The corresponding estimated loss of DFLE was 8.2 years for men and 9.1 years for women. Women with diabetes spent a greater number of absolute years and a greater proportion of their life with disability from age 50 years (61%) as compared to men with diabetes (58%), women without diabetes (40%) and men without diabetes (38%). At age 50 years, the estimated years lived with disability accounted for about 60% of total LE for those with diabetes and around 40% of total LE for those without diabetes.

The gains in LE and DFLE across the whole population (including people with and without diabetes) at age 50 years after hypothetically eliminating diagnosed diabetes would be 0.6 years and 1.8 [years](#).

The authors say that a number of factors are likely to be responsible for the loss of DFLE in people with diabetes. These include blood vessel complications that can cause eyesight deterioration and also movement problems and amputations, and also factors not traditionally connected to diabetes, such as decline in brain functioning as people age.

They say: "The striking loss of DFLE in diabetes reported in this study is likely to raise concern about the burden of diabetes in future decades, indicating a need to respond by implementing intervention and prevention of disability."

They add: "Evidence has shown that the loss of muscle mass and strength

in patients with diabetes may potentially be improved with insulin sensitisers. In 2012, the Look AHEAD trial found that intensive lifestyle intervention with a focus on weight loss and physical activity reduced the incidence of physical disability by half among overweight or obese adults with diabetes. Nonetheless, further research is still needed to explore other mechanisms (for example related to obesity or lack of physical activity) which lead to disability in diabetes. This will help inform strategies to prevention and control disability in those with [diabetes](#)."

**More information:** Lili Huo et al. Burden of diabetes in Australia: life expectancy and disability-free life expectancy in adults with diabetes, *Diabetologia* (2016). [DOI: 10.1007/s00125-016-3948-x](https://doi.org/10.1007/s00125-016-3948-x)

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