

Type 1 diabetes is a lifelong autoimmune disease that destroys the ability to produce insulin, a hormone which is vital for life. People can be diagnosed with the disease at any age, though diagnosis is most common in children.

People with type 1 diabetes need multiple insulin injections or a continuous infusion from an insulin pump every day. However, insulin is not a cure.

The strict daily regime of blood glucose management can be a heavy burden, impacting quality of life through the constant fear of hypoglycaemia and risk of complications.

The causes of type 1 diabetes are not fully understood, though genetic and environmental triggers play a role. There is currently no way to prevent or cure type 1 diabetes.

The Symptoms of type 1 diabetes

If you have two or more of these symptoms¹, ask your doctor about type 1 diabetes:

- Frequent urination
- Increased hunger
- Tiredness
- Vomiting and stomach pain
- Excessive thirst
- Weight loss
- Lack of interest or concentration

Early identification of these symptoms could save lives and reduce the likelihood of late diagnosis.

Type 1 diabetes impacts millions of lives around the world

2400 The number of people diagnosed with T1D every year in Australia²

10-14 years The Peak age range of T1D diagnosis in Australia²

\$570 million Average annual cost incurred collectively each year by individuals with T1D³

Top 12 Australia's global per capita ranking in incidence of T1D in children from 0-14 years⁴

The risk of complications

The more time people with type 1 diabetes spend outside the normal range of blood glucose levels, the greater their risk of serious health complications. Although many people with type 1 diabetes may look healthy, over time, the disease can affect most organs and body systems.

Health complications of diabetes are common, and can be severe including kidney failure, blindness, nerve damage, amputation, heart attack, stroke and pregnancy complications⁵. The risk of complications is greatly reduced with strict glucose management.

After 20 years, almost all people with type 1 diabetes will develop early stage retinopathy (eye damage). A small proportion of people will develop end stage retinopathy, which can lead to permanent blindness⁶.

² Australian Institute of Health and Welfare 2016. Incidence of insulin-treated diabetes in Australia 2014. Diabetes Series no. 25.

³ Colagiuri, S et al. 2009. DiabCoSt Australia Type 1: Assessing the burden of Type 1 Diabetes in Australia. Canberra: Diabetes Australia

⁴ International Diabetes Federation. IDF Diabetes, 7 ed. Brussels, Belgium: International Diabetes Federation, 2015. <http://www.diabetesatlas.org>

⁵ Atkinson et al.(2014), The Lancet, Vol. 383: 69-82

⁶ Craig ME, Twigg SM, Donaghue KC, Cheung NW, Cameron FJ, Conn J, Jenkins AJ, Silink M, for the Australian Type 1 Diabetes Guidelines Expert Advisory Group. National evidence based clinical care guidelines for type 1 diabetes in children, adolescents and adults, Australian Government Department of Health and Ageing, Canberra 2011

¹ International Diabetes Federation, www.idf.org

At JDRF our plan is to make a future where:

- Your blood glucose levels can be controlled automatically
- You can sleep, eat, exercise and live as if T1D is not in your life
- T1D can be cured and is no longer present in your body
- T1D can be prevented and never threaten anyone again

Up to 50% of people with type 1 diabetes will have some form of neuropathy (nerve damage)⁶, which is particularly debilitating and is a major cause of increased mortality. Damage to the nervous system impairs healing and all too often leads to amputation.

Diabetes is the leading cause of the most serious form of chronic kidney disease, which caused nearly 10% of all deaths in Australia in 2013⁷.

The burden of type 1 diabetes

Type 1 diabetes creates a significant financial and emotional burden to its patients. The disease alone costs \$4,669 annually on average per patient. When complications associated with the disease arise, around 20 years after diagnosis, this cost can increase to a significant \$16,698³ per patient.

Excluding the cost of complications, type 1 diabetes costs the Australian health system \$400 million annually⁸.

The emotional and lifestyle cost of type 1 diabetes is more difficult to measure but no less serious. Research suggests people with type 1 diabetes experience a reduced quality of life^{9,10}.

JDRF has a plan to turn Type One into Type None

JDRF is the only global organisation with a strategic research plan to turn Type One into Type None.

Our research plan ensures that there will be an ongoing stream of life-changing therapies moving from development through to commercialisation that lessen the impact of T1D.

We want to keep people with T1D healthy and safe today until we reach our ultimate goal of a cure and universal prevention of T1D.



With our research strategy and your support, we will create a world without type 1 diabetes. join us at: jdrf.org.au

7 Australian Institute of Health and Welfare 2016. Chronic Kidney Disease. Accessed 7th November 2016 (www.aihw.gov.au)
8 Goss J 2008. Projection of Australian health care expenditure by disease, 2003 to 2033. Cat. No. HWE 43. Canberra: AIHW

9 Stuckey et al., 2014. Personal Accounts of the Negative and Adaptive Psychosocial Experiences of People With Diabetes in the Second Diabetes Attitudes, Wishes and Needs (DAWN2) Study. Diabetes Care.
10 Whittemore et al., 2012. Psychological experience of parents of children with type 1 diabetes: a systematic mixed-studies review. Diabetes Educ 38: 562-79.