

PSYCHOLOGY WORKS Fact Sheet: Diabetes

What Is Diabetes and How Prevalent Is It?

Diabetes is a well-understood disease in which the body either cannot produce insulin or cannot properly use the insulin it produces. Type 1 diabetes occurs when the pancreas is unable to produce insulin, whereas Type 2 diabetes occurs when the pancreas does not produce enough insulin or the body cannot use the insulin it produces effectively. Most Canadians with diabetes have Type 2 diabetes (90%), which is strongly associated with obesity, inactivity, and unhealthy eating patterns and aging.

According to Diabetes Canada, approximately 10% of Canadians currently live with Type 1 or Type 2 diabetes, with the prediction that this will rise to 12% by 2034. The estimated total cost to the healthcare system in 2024 was \$18.25 billion, with out-of-pocket expenses of up to 12% of family income for those with Type 1 diabetes and up to 7% of family income for those with Type 2 diabetes. The 2025 International Diabetes Federation Atlas estimates that 589 million adults currently live with diabetes world-wide (~11%), with this number expected to increase to 853 million by 2050.

Prediabetes is a diagnostic category, which, although not Type 2 diabetes per se, reflects the beginning of insulin resistance and is associated with metabolic risk (especially macrovascular risks). Evidence suggests that taking action early, especially health behaviour change, can delay the onset of Type 2 diabetes.

How Is Diabetes Treated?

Many people think that diabetes treatment is very straightforward once the right amount of medication or insulin has been determined. Unfortunately, management is much more complicated. Successful management rests on the person actively engaging in self-management and prioritizing diabetes tasks over other life tasks. Important psychological milestones associated with successful self-management include disease acceptance, treatment acceptance, and readiness for self-management. Psychological intervention can aid in helping people with diabetes achieve these outcomes.

The treatment of diabetes rests on following a daily routine of medication or insulin usage, self-monitoring blood glucose levels (either by self-testing using a lancet or using a continuous glucose monitoring device), and adhering to healthy eating and activity guidelines. All of these tasks must be performed multiple times per day in a highly coordinated fashion. Diabetes is a disease that is managed primarily by a complicated regime of self-care behaviour. It has been estimated that adhering to all of the behavioural requirements of self-management would require over an hour a day for Type 2 diabetes and more than 1.5 hours per day for Type 1 diabetes.

¹ https://www.diabetes.ca/getmedia/9c717b08-e53e-47c4-a522-c0937ce0861b/2024-Backgrounder-Canada-EN FINAL 1.pdf

² https://diabetesatlas.org/data-by-location/global/



Diabetes self-management is difficult for several reasons:

- 1. The demands of diabetes self-management can be overwhelming. Ideally, when people learn new and complicated routines, they try out new behaviours in a gradual way, eventually making them part of the new routine. Yet, with diabetes, the individual must quickly learn a large number of new behaviours and they must begin performing them all immediately and at once (e.g., the newly diagnosed individual is instructed in self-testing, dietary modifications, medication/insulin usage, and exercise at a minimum).
- 2. Diabetes self-care is complex involving the multiple impacts of several factors that work in opposite directions. For example, activity, insulin, and the passage of time lower blood glucose, whereas food and stress elevate blood glucose.
- 3. A principle of successful behaviour management is the opportunity to take breaks or "time out" from difficult tasks. However, with diabetes self-management, there are no weekends off, no vacations, and no retirement. The demands of diabetes self-care are constant.
- 4. Diabetes management can be frustrating because effort does not always produce predictable results. There are times when individuals do all that they are asked and still their control is not what they expect.

While most people with diabetes will live with it for life, for those with Type 2 diabetes, it may be possible to achieve remission. *Diabetes remission* is a term recently introduced to describe a person with Type 2 diabetes who, primarily through significant weight loss (~15% of body weight), can maintain normal glycemic levels without the need for medication. Adherence to healthy behaviours appears key to the maintenance of diabetes remission for those who can achieve it.

What Are the Psychological Implications of Living with Diabetes?

There are a number of psychological aspects of living with diabetes that interfere with function, health, and quality of life.

Diabetes distress is a recently validated construct that refers to distress associated with the emotional burden of diabetes, the regimen of diabetes self-management, the social stigma associated with diabetes, as well as interpersonal distress associated with relationships with family and friends and relationships with healthcare providers. There are a series of validated diabetes distress instruments, which can be self-administered, scored, and interpreted by accessing www.diabetesdistress.org.

Other important psychological consequences of living with diabetes include fear of hypoglycemia and, for those with Type 2 diabetes, psychological insulin resistance (negative attitudes toward the use of insulin when insulin is required due to beta cell insufficiency). Moreover, those living with diabetes may be more likely to develop an eating disorder than those not living with diabetes. One specific eating disorder associated with Type 1 diabetes is called Type 1 Disordered Eating (T1DE), which involves withholding insulin for the purpose of losing weight.



Diabetes-specific psychological issues interfere with health and quality of life and can be associated with the development of depressive or anxiety disorders.

What Can Psychologists Do to Help People with Diabetes?

Diabetes presents a significant challenge and stress for people with diabetes and those who support them. Psychologists can play a valuable role in helping people live well with diabetes (see here for a recently published report on the roles and competencies of the clinical psychologist in diabetes care).

Psychologists are well trained in emotion management and behaviour change interventions. The *Clinical Practice Guidelines* from Diabetes Canada recommend psychological screening and support for all individuals living with diabetes. Psychologists work with individuals with diabetes and/or their loved ones in several ways:

- 1. They can help the newly diagnosed individual to understand the impact of this diagnosis and their role in managing it.
- 2. They can problem solve to help the individual learn the daily behaviours needed for successful maintenance.
- 3. They can recognize and treat psychological distress including depression and anxiety that may develop when living with an unpredictable disease.
- 4. They can help in assisting the individual to develop and maintain the motivation needed to follow the daily routine of self-care.
- 5. They can provide strategies for how to deal with social pressures (e.g., regarding food/drink choices, exercise) that don't align with the individual's self-management routine.

Where Can I Go For More Information?

The following websites provide useful information on diabetes and self-care:

- Diabetes Canada at http://www.diabetes.ca
- American Diabetes Association at http://www.diabetes.org
- International Diabetes Federation at https://www.idf.org/

Breakthrough T1D (formerly the Juvenile Diabetes Research Foundation) and Diabetes Canada have launched a diabetes-specific training program to educate Canadian mental health providers in diabetes, with the view hope of increasing access to trained mental health providers. A directory of graduates of this training program is being created to improve referral options for those seeking psychological support for diabetes management (https://directory.jdrf.ca)



You can consult with a registered psychologist to find out if psychological interventions might be of help to you. Provincial, territorial, and some municipal associations of psychology may make available a referral list of practicing psychologists that can be searched for appropriate services. For the names and coordinates of provincial and territorial associations of psychology, go to https://cpa.ca/public/whatisapsychologist/PTassociations/.

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Your opinion matters! Please contact us with any questions or comments about any of the **PSYCHOLOGY WORKS** Fact Sheets: factsheets@cpa.ca

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