



# Mental health and diabetes

This brief guide reviews mental health problems, including diabetes-specific issues, in people with diabetes, and outlines how to recognise them and how they are correlated with diabetes and physical health.

- Mental health problems include **anxiety**, **depression**, **eating disorders** and **obsessive-compulsive disorder**.
- Serious mental illness generally refers to **bipolar disorder** (formerly known as manic depression) and **schizophrenia**.
- Diabetes-specific mental health problems include **diabetes distress** and **diabetes burnout**.

## Increased mental health problems in diabetes<sup>1,2</sup>

- Depression rates are increased by around 40%.
- Anxiety rates are increased by around 20%.
- One in 4 people with diabetes will have **diabetes distress** (specific anxiety or depression arising from their diabetes).
- Around 1 in 5 people with type 1 diabetes have **eating disorders**.
- Poor diabetes control **doubles** the risk of psychiatric conditions.

## Increased risk of type 2 diabetes with mental health problems<sup>2,3</sup>

- Depression increases the risk of developing type 2 diabetes by 60%.
- Post-traumatic stress disorder is postulated to increase the risk of type 2 diabetes significantly.
- In **serious mental illness**, the increased rate of type 2 diabetes contributes to the 10–20-year premature mortality.
- Poor **sleep**, poor **diet**, lower **socioeconomic status** and less **exercise** are all postulated as possible causes.
- This leads to **metabolic syndrome** and activation of the **hypothalamic-pituitary-adrenal axis** from chronic stress.
- The link between mental health problems and type 2 diabetes is also thought to be due to increased **oxidative stress** (an inability to detoxify reactive oxygen species, leading to dysregulated inflammatory and metabolic response).

## Effect of mental health problems on type 1 diabetes control<sup>4</sup>

- Pre-existing mental health problems at diagnosis **double** the risk of poor glycaemic control in adolescents.
- Diabetes distress can lead to **diabetes burnout** (a state of frustration and hopelessness about the condition), where the person will often participate in self-destructive behaviours.
- Eating disorders in young women with type 1 diabetes increase the risk of complications by around 300%.

## Effect of mental health problems on type 2 diabetes control<sup>4</sup>

- **Minor depression** (at least two depressive symptoms) increases the risk of death in type 2 diabetes by 50%.
- **Major depression** (anhedonia, low self-esteem and suicidal thoughts, particularly in bipolar depression) more than **doubles** the risk.
- **Diabetes burnout** often worsens self-management.

## Screening for mental health problems in diabetes<sup>4</sup>

Screening for mental health problems in diabetes is important.

Some commonly used tools are as follows:

### Depression: [Patient Health Questionnaire \(PHQ-9\)](#)

- Scores each of the nine DSM-IV depression criteria from 0 (not at all) to 3 (nearly every day).
- A total score of  $\geq 10$  (out of a possible 27) indicates possible **depression**. Diagnosis must be confirmed with a clinical interview.

### Diabetes distress: [Problem Areas In Diabetes \(PAID\)](#)

- 20 items, scored from 0 (not a problem) to 4 (a serious problem). Scores for each item are summed, then multiplied by 1.25 to generate a total score out of 100.
- Total scores of  $\geq 40$  indicate severe diabetes distress.
- Any individual item score of  $\geq 3$  indicates a “problem area” or concern, and should be further explored in conversation.

### Diabetes burnout: No validated test; however, signs include:

- Disengagement from self-care tasks (e.g. skipping insulin doses/tablets, or not monitoring blood glucose).
- Unhealthy or uncontrolled eating.
- Risk-taking behaviours.
- Non-attendance at clinic consultations.

### References

- <sup>1</sup>Lin EHB et al (2008) *J Psychosom Res* **65**: 571–80
- <sup>2</sup>Badescu SV et al (2016) *J Med Life* **9**: 120–5
- <sup>3</sup>Mezuk B et al (2008) *Diabetes Care* **31**: 2383–90
- <sup>4</sup>Diabetes UK (2019) *Diabetes and emotional health*. DUK, London. <https://bit.ly/322v16s>

**Author:** Peter Bagshaw, GP Partner and Somerset CCG Mental Health Lead

**Citation:** Bagshaw P (2020) At-a-glance factsheet: Mental health and diabetes. *Diabetes & Primary Care* **23**: 17