

Latest news: Diabetes and cancer; “soups and shakes”; and CVD protection from breastfeeding

Stay abreast of the latest news that could impact diabetes nursing.

Genetic insights into type 2 diabetes and some cancers

A study presented at the Diabetes UK Professional Conference has revealed that genetic variants help explain why people with type 2 diabetes are at an increased risk of developing breast, colorectal and pancreatic cancers. Insights into the interplay between the conditions could inform better cancer prevention and treatment strategies for people with type 2 diabetes.

Cancer is now the leading cause of death in people with diabetes in England, and cancer survival rates in those with diabetes lag behind those of the general population. While it is known that type 2 diabetes can increase the risk of developing a number of serious health complications, including certain cancers, the biological factors contributing to these links have not been well understood.

The complex mix of drivers that influence type 2 diabetes includes age, body weight and genetics. Hundreds of genetic variants play a role in its development, and some of these increase the chances of getting cancer. Researchers at the University of Surrey investigated the genetic relationships between the conditions to explain why some individuals with type 2 diabetes also develop cancer.

DNA data from over 36 000 people from several European countries was analysed. This included people with type 2 diabetes and post-menopausal breast cancer, colorectal cancer and pancreatic cancer – the three types they are most at risk of developing. A pioneering approach

was adopted to study how genetic variants simultaneously affect all four conditions.

Two genetic variants were pinpointed as being key contributors to the development of type 2 diabetes and some cancers. One was linked to the risk of developing both breast cancer and type 2 diabetes; the other affects type 2 diabetes and breast, colorectal and pancreatic cancer risk. Those carrying either of these genetic variants are at increased risk of developing both type 2 diabetes and these cancers.

The researchers also identified 17 variants that directly increase the risk of developing type 2 diabetes and, through biological processes linked to it, indirectly increase cancer risk. The higher glucose and insulin levels, obesity, inflammation and hormonal changes found in type 2 diabetes may create an environment in which it is easier for cancer to develop.

It is hoped that these findings of shared genetic pathways will, in time, lead to our ability to the earlier identification of people who are at risk of both type 2 diabetes and certain cancers, while paving the way for more personalised ways to prevent and treat these conditions. The investigators emphasise that people can be supported to reduce their risk by managing weight, eating well, keeping active and not smoking.

“Soups and shakes” diet programme expands

The NHS Type 2 Diabetes Path to Remission programme is to be rolled out across the whole of England this year. The expansion to 42 local health areas

will double the capacity of the programme and benefit many more people recently diagnosed with type 2 diabetes.

Inspired by the ground-breaking DiRECT study, the programme is a joint initiative between NHS England and Diabetes UK. To help kick-start weight loss, eligible participants are provided with nutritionally balanced, low-calorie meal replacement products. These soups, shakes and bars deliver 800–900 calories per day for the first 12 weeks.

After this phase, people are carefully supported by healthcare professionals to reintroduce healthy, nutritious food into their diet to maintain weight loss, and to increase their physical activity levels. Participants can choose whether to access this help through one-to-one in-person sessions, group sessions or digitally through an app or online.

Over 20 000 people have taken part in the programme since its pilot was launched in 2020. Analysis of its outcomes show that it is effective in improving people’s diabetes control and supporting their weight loss, with participants on average losing 7.2 kg after one month and 13 kg over the 12-month programme. Clinical trials suggest that such outcomes can lead to remission of type 2 diabetes in up to half of those who reach them.

The programme’s expansion is being supported by £13 million this year. Individuals need to meet a set of criteria to be referred by their GP. These include:

- Aged 18–65 years.
- A diagnosis of type 2 diabetes within 6 years.

- A BMI ≥ 27 kg/m² (if from a White ethnic group) or ≥ 25 kg/m² (if from Black, Asian or other ethnic minority group).
- An HbA_{1c} measurement of 43–87 mmol/mol in the last 12 months (if on antidiabetes drugs) or 48–87 mmol/mol (if not on antidiabetes drugs).

Similar programmes can be accessed in Scotland, and “soups and shakes” weight-loss initiatives have also been piloted in Northern Ireland and Wales.

NHS National Clinical Director for Diabetes and Obesity, Dr Clare Hambling commented: “The rollout of this innovative programme across the NHS in England provides a holistic and compassionate way to help people living with type 2 diabetes and overweight or obesity.

“Weight loss can lead to significant health benefits, including for some, remission of type 2 diabetes, and it’s important the NHS offers a wide range of services that are easy to access and tailored to those looking to manage their condition.”

For adults who are living with obesity and also have diabetes, hypertension or both, help is available nationally through the NHS Digital Weight Management Programme. This 12-week programme can be accessed following referral from primary care or local pharmacist.

Breastfeeding associated with lower CVD risk in high-risk women

A large study has investigated how longer duration of breastfeeding is related to

cardiovascular risk among women at high risk of cardiovascular disease (CVD). While it is known that breastfeeding is associated with decreased cardiovascular risk in parous women in the general population, this study assessed the association among women with prior gestational diabetes or type 2 diabetes.

Cardiovascular disease is the leading cause of morbidity and mortality among people with type 2 diabetes, with the relative CVD risk in women being up to 50% greater than in men. Additionally, the onset of gestational diabetes (GDM) confers a higher risk for CVD, even among women who do not develop type 2 diabetes.

Breastfeeding provides short- and long-term health benefits to women and their children. In mothers, it is associated with decreased risks of types 2 diabetes, CVD and all-cause mortality. Despite this, rates of exclusive breastfeeding for 6 months postpartum, as recommended by the World Health Organization, are very low.

Researchers analysed questionnaire data supplied by participants in two large cohort studies in the US – the Nurses’ Health Study (NHS) and Nurses’ Health Study II (NHS II). They included 15 146 parous women with type 2 diabetes (from NHS and NHS II) and 4537 women with a history of GDM (from NHS II). Breastfeeding history was collected through follow-up questionnaires.

Incident CVD cases (stroke or coronary heart disease [CHD]) were documented in 1159 women with type 2 diabetes in both cohorts during 188 874 person-years of follow-up. There were 132 incident CVD

cases among women with a GDM history during 100 218 person-years of follow-up.

A longer lifetime duration of breastfeeding was associated with lower CVD risk in women with type 2 diabetes. Compared with women who never breastfed, women cumulatively breastfeeding >18 months had 32% lower CVD and 38% lower CHD in the pooled cohorts.

Among women with a GDM history, those with a cumulative breastfeeding duration >18 months had a 51% lower risk of incident CVD compared to parous women who never breastfed.

These findings strengthen the evidence of the lifelong benefits of breastfeeding to women at high risk for CVD complications, such as women with type 2 diabetes or GDM, and suggest that breastfeeding might mitigate some of the CVD risk associated with diabetes. The authors conclude that there is a need for greater promotion of breastfeeding as a primary prevention CVD strategy in high-risk women.

The full study findings can be read [here](#).

Citation: Latest news: Diabetes and cancer; “soups and shakes”; and CVD protection from breastfeeding. *Journal of Diabetes Nursing* 28: JDN334
