

# Diabetes

## Headlines

Diabetes is one of the biggest health challenges facing people living in the UK. By 2030 up to 1 in 10 of the population will have the condition. Locally diabetes is increasing because of rising obesity levels, an ageing population and a growing population of south Asian origin.

In 2008, diabetes affected 1 in 14 (7.5%) of the Kirklees adult population. By 2025 this will rise by 20%. Areas with higher levels of deprivation and larger south Asian populations have more people with diabetes such as Dewsbury and Huddersfield, 1 in 11 (9%).

When diabetes is not well managed it can lead to serious complications including heart disease, stroke, blindness, kidney disease, nerve damage and amputations leading to disability and earlier death.

Life expectancy is reduced by more than 20 years in people with Type I and up to 10 years in people with Type II. Type II diabetes in young people did not exist 10 years ago in Kirklees.

Of those with diabetes, 3 in 4 were at least overweight and less likely to be active. Increasing physical activity and eating healthily are essential in both preventing diabetes and supporting its control.

## Why is this issue important?

Diabetes is a chronic and progressive disease, which, if left uncontrolled, can severely damage blood vessels and nerves leading to loss of eyesight, impotency, impaired kidney function, amputation of limbs or even death. It develops when the levels of blood glucose become too high caused by a lack of insulin or the insulin not being used properly. Insulin controls glucose levels in the blood. Diabetes is one of the biggest health challenges facing people living in the UK<sup>1</sup>, with the proportion of the people with the condition predicted to rise to 1 in 10 by 2030<sup>2(p8)</sup>.

There are two main types of diabetes. Type I diabetes develops when the body stops making insulin and usually appears before the age of 40. It is the less common type, only 10% of people with diabetes have Type I. The cause of Type I is unknown and there is nothing that can be done to prevent onset. Type II diabetes is where the body still produces insulin, but not enough, or where the body ignores the insulin. This type of diabetes is linked to poor diet and to obesity. It usually develops in people over the age of 40, but is now appearing at younger ages<sup>1</sup>.

Life expectancy is reduced, on average, by more than 20 years in people with Type I and up to 10 years in people with Type II<sup>1</sup>. Currently 2.6 million people (4%) are known to have diabetes in the UK<sup>1</sup>, and this is increasing. It is estimated that there are half a million people who are unaware that they have diabetes in the UK. People with a family history of Type II diabetes are at higher risk of developing the disease. The most deprived people in the UK are two and a half times more likely than the average to have diabetes at any age<sup>1</sup>. Type II diabetes is preventable by eating a healthy diet and not becoming obese which improves insulin sensitivity<sup>3</sup>.

Locally in 2008, 7.5% of adults had diabetes, an increase of 1% from 2005<sup>4</sup>. By 2025 the rates of diabetes in adults in Kirklees is predicted to rise by 20%<sup>5</sup>. The number of people with diabetes is increasing locally because of rising obesity levels, an ageing population and a growing population of south Asian origin.

Of people living with diabetes in Kirklees<sup>4</sup>:

- Men were more than 2.5 times more likely to have diabetes than women, i.e. 11% and 4.2% respectively, a much wider gap than nationally.
- 16% had a problem with eyesight, compared to 8% of those without diabetes. This was worse in those aged under 65 years, 15% compared to 6% overall. 12% were blind or severely visually impaired compared to 7.2% of those without diabetes.
- 12% were smokers compared with 15% in 2005.
- 30% were never active enough to be out of breath, compared to 12% overall. Only 17% did the recommended level of 30 minutes of regular physical activity five times per week, compared to 28% overall.
- 40% were obese compared to 18% overall and 36% were overweight, i.e. 3 in 4 were overweight or obese.
- Of those aged under 65 years, 50% were employed compared to 75% of those without diabetes.
- 33% had a household income of less than £10,000 compared with 23% overall.

## What significant factors are affecting this issue?

When diabetes is not well managed it can lead to serious complications including heart disease, stroke, blindness, kidney disease, nerve damage and amputations leading to disability<sup>1</sup>. With early identification and good management of diabetes the risk of complications is reduced. However, up to half of people newly diagnosed with diabetes will already have some complications, as they may begin five to six years before diagnosis<sup>6</sup>.

People with diabetes are twice as likely to have a stroke in the first five years after diagnosis as the general population and four times more likely to have a stroke or heart disease. It is suggested that 52% of people with Type II diabetes die from heart disease<sup>1</sup>. Almost 1 in 3 people with Type II diabetes will develop serious kidney disease<sup>1</sup> (see CKD section).

Diabetes is the leading cause of blindness in people of working age in the UK<sup>1</sup> caused by a complication called retinopathy. However, it can be treated (by laser) if identified early enough. Annual screening can monitor eyes to identify this issue.

Being overweight or obese is a significant factor, as people who were obese were four times more likely to be diabetic than people with a healthy weight.

## Which groups are affected most by this issue?

### Ethnicity<sup>4</sup>

Locally, in 2008 south Asian people were over twice as likely to have diabetes (15%) than white people (6.6%), with 13% of black people having diabetes. In those aged under 65 years, 12% of south Asians had diabetes compared to 4.4% of white and 5.5% of black people.

### Women of childbearing age

Diabetes is the most common pre-existing medical disorder complicating pregnancy in the UK. Approximately one pregnant woman in 250 has pre-existing diabetes<sup>7</sup>. This is associated with increased risks for both mother and baby<sup>8</sup>. Gestational diabetes is a type of diabetes which usually occurs during the second or third trimester of pregnancy due to the body's inability to produce enough insulin to meet the extra demands of pregnancy. It is also linked to being overweight or obese. It affects 2-12% of all pregnancies<sup>9</sup>. Women diagnosed with gestational diabetes are 30% more at risk of developing Type II diabetes later in life. Women with Type II or gestational diabetes are likely to be older, have had several children previously, live in a deprived area, and come from a black Caribbean, south Asian or Middle Eastern ethnic group<sup>7</sup>.

Pregnancy outcomes for women with diabetes and their babies are poor compared to those without diabetes<sup>9</sup>. Newborn babies affected by their mother's gestational diabetes may themselves be at risk of Type II diabetes in later life<sup>10</sup>.

### Children and young people

Locally, in 2010, 185 children and young people were known to have diabetes; i.e. 1.8 per 1,000 of those aged under 18 years compared to 2.1 per 1,000<sup>11</sup> nationally. Most of these had Type I diabetes, 178 or 1.8 per 1,000. Of more concern, the rest had Type II diabetes. The number of children with Type II diabetes is increasing, directly linked to increasing obesity levels, and locally was non-existent 10 years ago<sup>12</sup>. Children of a south Asian origin are 13 times more likely to have diabetes than white children<sup>1</sup>.

Of 14 year olds, 0.7% had some form of diabetes in 2009<sup>13</sup>.

## Older people

The rate of diabetes rises dramatically with age, from less than 1% in those aged 16-24 years to over 1 in 8 for men aged over 65 years and 1 in 9 for women aged over 65 years<sup>14</sup>.

Locally, in 2008, diabetes affected 1 in 20 of those under 65 years and 1 in 6 (16%) of those over 65 years. More than 1 in 4 people in care homes (27%) had diabetes<sup>15</sup>.

## Where is this causing greatest concern?

The rate of diabetes in those aged over 18 years is higher in Kirklees than nationally, but Kirklees has a higher proportion of residents of south Asian origin than nationally. Dewsbury and Huddersfield North have the highest rates of diabetes in those aged under 65 years. Dewsbury and Huddersfield South have the highest rate in those aged 65 years and over. The lowest rates in those aged over 18 are in Mirfield, Denby Dale & Kirkburton and the Holme Valley<sup>4</sup>.

Of 14 year olds, although numbers were very small, Dewsbury had the highest rate per 1,000 residents<sup>13</sup>.

## What could commissioners and service planners consider?

Services need to be culturally appropriate and tailored to meet the needs of the population.

Early identification of those at high risk of diabetes is paramount to enable early good diabetes control and avoid unnecessary complications. A screening programme for high risk patients needs to be incorporated into the routine work of general practice.

Self care is the foundation of good diabetic control. Offering structured self care programmes to all those with diabetes and adopting a care planning approach will support patients to better self care.

To improve diabetes care, services should be offered systematically closer to home by up skilling all GPs and practice nurses to initiate and manage people with stable diabetes. The integration of the specialist team into primary care is essential to support this and the introduction of e-consultation between primary and secondary care will offer continued reinforcement. In turn high quality care closer to home will allow secondary care services to enhance both out-patient services and in-patient care.

A new model of care is required for annual foot assessments of people living with diabetes, incorporating the training and mentorship of general practice staff to undertake annual assessments for people newly-diagnosed with diabetes and those currently identified to be at 'low current risk'. The current inequities of diabetic foot care provision across Kirklees increases the risk of foot care problems leading to possible amputation.

The retinal screening programme is well established, but it remains essential that all people living with diabetes receive and attend their annual recall from the NHS diabetic retinopathy screening programme.

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