



## **Diabetes**

Diabetes mellitus is a condition in which the amount of glucose (sugar) in the blood is too high because the body cannot use it properly. Glucose comes from the digestion of starchy foods such as bread, rice, potatoes, chapatis, yams and plantain, from sugar and other sweet foods, and from the liver which makes glucose.

Insulin is a hormone produced by the pancreas that is vital for life. It helps glucose to enter the cells so that it can be used as fuel by the body.

There are two types of diabetes:

**Type 1** diabetes develops if the body is unable to produce enough insulin. This type of diabetes usually appears before the age of 40. It is treated by insulin injections and diet and regular exercise is recommended.

**Type 2** diabetes develops when the body can still make some insulin, but not enough, or when the insulin that is produced does not work effectively (known as insulin resistance). In most cases this is linked with being overweight. This type of diabetes usually appears in people over the age of 40, though in South Asian and Afro-Caribbean people it often appears after the age of 25. Recently, an increasing number of children are being diagnosed with the condition in the UK and USA, some as young as seven, where it is linked closely to obesity.

The main symptoms of untreated diabetes are increased thirst, a need to pass urine frequently, especially at night, extreme tiredness, weight loss, genital itching or regular episodes of thrush, and blurred vision.

## **Prevalence**

There are over two million diabetics living in the UK (only around half of whom will have had the disease diagnosed); that figure is projected to rise to three million by 2010.<sup>1</sup> About three-quarters of these people have Type 2 diabetes.

Worldwide, the number of diabetics is projected to rise from 200 to 300 million over the period 2000 to 2020. The prevalence of diabetes has increased by 65% in men and 25% in women since 1991. It represents a massive and growing threat to public health, given that typically the gap between onset and diagnosis of the disease is 9–12 years. Already, some 20% of the South Asian population is diabetic and 25% are glucose-intolerant, a precursor condition for diabetes. On some projections, by 2025 diabetes could account for a quarter of the health budget.<sup>1</sup>

It is now predicted that one in three American children will eventually become diabetic, which in itself will pose an almost unimaginable disease and cost burden on that country.<sup>2</sup> One estimate suggests that up to 45% of cases of diabetes diagnosed in children in the USA are now type 2.<sup>3</sup>

## **Treatment**

The main aim of treatment of both types of diabetes is to achieve blood glucose, blood pressure and cholesterol levels as near to normal as possible. This, together with a healthy



lifestyle, will help to improve wellbeing and protect against long-term damage to the eyes, kidneys, nerves, heart and major arteries.

Type 2 diabetes is treated with lifestyle changes such as a healthier diet, weight loss and increased physical activity. Tablets and/or insulin may also be required to achieve normal blood glucose levels.

1. Health Select Committee Report, Obesity 2004
2. Centers for Disease Control Report, 63<sup>rd</sup> Annual Society, American Diabetes Association
3. A Pago a Campagna, Journal Paediatric Endocrinology and Metabolism 13 (2000),supplement 6,pp 1395-1402