

# Diabetes type 2

## Definition and incidence

- Blood glucose levels too high
- Estimated 2.8 million people in UK with diabetes
- Additional 850,000 people undiagnosed
- Type 2 (85 – 95% of cases) – body makes some, but not enough insulin or is insulin resistant
- Type 2 diabetes develops mainly in older people (over 40) but can occur in younger people

## Causes

- Pancreas not producing enough insulin and / or insulin resistance
- Development of type 2 diabetes is multifactorial and the mechanisms are not fully understood – see risk factors
- Eating sweets and sugar DOES NOT cause diabetes
- Stress DOES NOT cause diabetes
- Diabetes is not contagious

## Risk factors

- Age (over 40 years)
- People of South Asian, African-Caribbean or Middle Eastern origins
- Family history
- Overweight / obesity: risk increases 5% with every 1kg of weight gain
- Hypertension
- Patients who have impaired fasting glycaemia (IFG) or impaired glucose tolerance (IGT)
- History of gestational diabetes
- Metabolic syndrome
- Polycystic ovary syndrome
- Childhood obesity

## Complications

- Cardiovascular disease
- Retinopathy – damage to the retina
- Neuropathy – damage to the nerves
- Nephropathy – damage to the kidneys
- Foot problems

## Signs and symptoms

- Increased thirst
- Frequent urination – especially at night
- Tiredness, fatigue, weakness
- Weight loss
- Slow wound healing and frequent infections
- Blurred vision
- Itchy genitals

## Treatment

- Usual HbA1c target = 48-59 mmol / mol or 6.5-7.5%
- 1st line = diet and healthy living advice
- Metformin usually first line drug treatment; sulfonylurea alternative
- Dual / triple combination treatments offered if previous treatments ineffective eg. metformin and sulphonylurea
- Insulin added if other treatment options fail
- Blood glucose monitoring if appropriate

## Lifestyle changes

- Alcohol: maximum per day - 3-4 units for men, 2-3 units for women
- Body weight
- Smoking cessation
- Increase activity; build up to 150 minutes a week ie. 30 minutes activity 5 times a week
- Healthy diet:
  - reduce fat intake
  - five portions fruit / vegetables per day
  - two portions of fish per week
  - reduce coffee / caffeine intake
  - reduce salt intake / use of low sodium alternative
  - diabetic foods are of little benefit

**NB: A loss of 5% in body weight together with increased exercise can reduce the risk of developing diabetes by 50%**

## Other support

- Diabetes UK - [www.diabetes.org.uk](http://www.diabetes.org.uk)
- NHS Choices - [www.nhs.uk](http://www.nhs.uk)
- Patient.co.uk - [www.patient.co.uk](http://www.patient.co.uk)