

Type 1 Diabetes

Introduction

“Diabetes is a chronic condition that affects how your body turns food into energy, leading to elevated blood sugar levels.” (Caredemy, 2025). Type 1 diabetes is a lifelong autoimmune condition in which the body's immune system wrongly attacks the insulin-producing cells in the pancreas (Diabetes UK, 2026). As a result, the body produces little insulin or none at all, meaning glucose cannot enter the body's cells to be used for energy production. People with Type 1 diabetes will need insulin therapy for the rest of their lives in order to control their blood glucose levels and remain healthy (NHS, 2025).

According to Diabetes UK, less than one in ten people in the UK who suffer with diabetes are diagnosed with Type 1 Diabetes, meaning it is much less common than Type 2 diabetes.

“Although it’s often diagnosed in childhood, people can develop type 1 diabetes at any age.” (Diabetes UK, 2026), this highlights the importance of recognition of symptoms regardless of the age of the person, which could lead to an early diagnosis and the adequate treatment being given. Worldwide it is estimated that over nine million people live with type 1 diabetes of this, around 400,000 people within the UK live with type 1 diabetes therefore making it one of the countries with the highest number of cases in Europe.

Measuring and Monitoring Type 1 Diabetes

Effective monitoring is essential to make sure blood glucose levels remain within a healthy, safe range and to reduce the risk of diabetic complications. Individuals with type 1 diabetes must regularly monitor their blood glucose levels using finger-prick blood tests or continuous glucose monitoring (CGM) devices, these methods mean people can check their glucose levels throughout the day and adjust the required insulin dependent on this.

The HbA1c blood test is used by healthcare professionals to assess the average blood glucose levels over the previous two or three months. According to the NHS (2024) this test is usually performed every three to six months to determine how well the type 1 diabetes is being managed.

People with type 1 diabetes will receive regular health assessments from their diabetes care team. The team will monitor blood pressure, cholesterol levels, kidney function, thyroid function, body weight and mental health and wellbeing. Regular diabetic eye screening is

offered every one to two years to detect diabetic retinopathy, while annual foot examinations help identify nerve damage and reduce the risk of ulcers and amputations.

Controlling Type 1 Diabetes

Unlike Type 2 Diabetes, it is not currently possible to prevent Type 1 diabetes due to the fact that it is caused by an autoimmune response rather than lifestyle factors. According to the NHS in 2025, common symptoms of diabetes include: urinating more than usual, losing weight without trying, feeling very tired, feeling very thirsty blurred vision and injuries taking a long time to heal. The NHS also states how diabetes can increase the chance of getting other health problems including a heart attack or stroke, kidney problems, nerve damage and foot problems, sight problems and gum disease. As well as this, if left untreated, type 1 diabetes could even become life threatening and lead to diabetic ketoacidosis (DKA), a life-threatening medical emergency as stated by Diabetes UK (2026) regarding the significance of screening.

Diabetes courses are recommended for everyone with type 1 diabetes, they are designed to give patients both the confidence and skills to manage diabetes and should be offered freely within a year of being diagnosed, they can also be taken online where the person is able to follow along at their own personal pace. Education regarding diabetes is extremely important, it teaches people how to manage insulin, monitor their blood glucose levels and recognise the early symptoms of hyperglycaemia (high blood sugar) and hypoglycaemia (low blood sugar). Furthermore, patients may learn how to manage stress and illness which both have the ability to affect blood glucose levels, as well as counting carbohydrates, keep up with regular physical activity and keeping a healthy and balanced diet.

It is extremely crucial to monitor blood glucose levels, as highlighted by the NHS in 2025 regarding this, complications can develop over time and are linked to high blood glucose levels meaning the monitoring of blood glucose is extremely important, individuals must make sure they are meeting their targets in order to avoid the risk of complication.

The main treatment for type 1 diabetes is lifelong insulin therapy, “Insulin helps you manage your blood sugar levels and helps prevent short-term or long-term serious health problems known as diabetes complications.” (Diabetes UK, n.d.). Insulin can be administered using an insulin pump which attaches to the skin and is worn at all times, releasing tiny amounts of insulin throughout the day and night, according to the NHS in 2024, some types of insulin pumps work alongside a continuous glucose monitor to automatically give the right amount of insulin depending on blood glucose level. Insulin can also be administered via injection using

an insulin pen or needle. There are two types of insulin pen, one which already has insulin which is thrown away once empty, or one which is reusable because it comes with cartridges that can be changed. According to Diabetes UK, smart insulin pens transfer data to an app the individual would have on their phone or other device, these smart pens also automatically record the amount of insulin which has been taken.

Regular reviews and consultations with healthcare professionals help to ensure treatment for type 1 diabetes remains effective. Diabetes specialists work with patients to develop personal care plans based on their lifestyle, unique insulin requirements and overall health and wellbeing.

Consequences of Type 1 Diabetes on People in the Community

Type 1 diabetes has significant consequences for both the individual and the wider community. Due to it being a lifelong condition and requiring daily management, people living with diabetes must constantly monitor their blood glucose levels, administer insulin and carefully make sure to balance their diet and physical activity. It's advised that an individual check their blood glucose a minimum of 4 times a day or 5 for a child, including before meals and before bed (NHS 2024). These tasks can be physically and emotionally demanding, affecting both a person's quality of life and their overall wellbeing.

One of the main consequences of type 1 diabetes is the increased risks for both short-term and long-term health complications. Blood glucose levels not being controlled well will result in individuals experiencing episodes of hyperglycaemia or hypoglycaemia, both requiring urgent medical treatment. Furthermore, poorly treated diabetes has the potential to lead to complications including cardiovascular disease, kidney disease, foot ulcers, gum disease and infections, which overall reduce an individual's independence, ability to carry out everyday activities and quality of life. Frequent medical appointments due to these issues for ongoing treatment may also affect education, employment and social participation.

Children may require additional support at school to monitor their blood glucose levels and safely administer insulin, whilst adults may need reasonable adjustments in the workplace in order to help manage their condition. The NHS advises "make sure your family and friends know how to recognise a hypo and what to do" highlighting the fact that type 1 diabetes management extends beyond the individual as family members, colleagues, educators and other associates may need to be educated on the condition that they may be able to respond during an emergency, therefore type 1 diabetes has the potential to have a wider impact on families, schools, workplaces and the overall community.

Health and Social Care Support Services

A multidisciplinary approach is essential to support individuals with type 1 diabetes. General practitioners provide structured routine care and referrals to professional specialist diabetes services where “diabetes care teams will work alongside [the individual] to develop a care plan” (NHS 2024), in which patients are educated about which insulin is best for them and the administration, how to monitor blood glucose levels and what targets they should be meeting and self-management in order to ensure type 1 diabetes does not lead to further health complications. For example, the NHS stated in 2024 “Too much insulin causes hypoglycaemia, or hypos. You'll be taught how to recognise the symptoms and how to treat a hypo.”

Dietitians also play an extremely important role in supporting individuals with type 1 diabetes, providing personalised nutritional advice and education for patients, “[The] aim is to help patients improve their diabetes control and reduce the risk of long-term complications.” (UBH NHS Therapy Services, 2020), patients are referred from hospital staff, GPs and other health professionals and nutritional advice is given based on information obtained from the patient themselves keeping them involved and active in their own treatment. This will include patients learning information regarding carbohydrate counting which enables them to match their insulin doses with the amount of carbohydrates they have consumed. This helps to maintain stable blood glucose levels and reduces the risk of both high and low blood glucose levels.

Regular screening and monitoring are also provided by healthcare professionals. Podiatrists will carry out annual foot examinations to examine any nerve damage, poor circulation or ulcers.

Conclusion

Although there is currently no cure or method of prevention for type 1 diabetes, the effective management of it through the monitoring of blood glucose, healthy lifestyle choices and insulin treatment mean the risk of the individual experiencing further healthcare complications is significantly reduced. An early diagnosis as well as ongoing access to specialist services means individuals may still live independently, people with type 1 diabetes can manage their condition safely and maintain their quality of life

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