DIABETES

Diabetes is a lifelong condition that causes a person's blood sugar level to become too high.

There are two main types of diabetes:

- **type 1 diabetes** - where the body's immune system attacks and destroys the cells that produce insulin
- **type 2 diabetes** - where the body doesn't produce enough insulin, or the body's cells don't react to insulin

Type 2 diabetes is far more common than type 1. In the UK, around 90% of all adults with diabetes have type 2.

Pre-diabetes

Many more people have blood sugar levels above the normal range, but not high enough to be diagnosed as having diabetes.

This is sometimes known as pre-diabetes. If your blood sugar level is above the normal range, your risk of developing full-blown diabetes is increased.

It's very important for diabetes to be diagnosed as early as possible because it will get progressively worse if left untreated.

When to see a doctor

Visit your GP as soon as possible if you experience the main symptoms of diabetes, which include:

- feeling very **thirsty**
- urinating more frequently than usual, particularly at night
- feeling very tired
- weight loss and loss of muscle bulk
- itching around the penis or vagina, or frequent episodes of **thrush**
- cuts or wounds that heal slowly
- blurred vision
Type 1 diabetes can develop quickly over weeks or even days.

Many people have type 2 diabetes for years without realising because the early symptoms tend to be general.

**Causes of diabetes**

The amount of sugar in the blood is controlled by a hormone called insulin, which is produced by the pancreas (a gland behind the stomach).

When food is digested and enters your bloodstream, insulin moves glucose out of the blood and into cells, where it's broken down to produce energy.

However, if you have diabetes, your body is unable to break down glucose into energy. This is because there's either not enough insulin to move the glucose, or the insulin produced doesn't work properly.

Although there are no lifestyle changes you can make to lower your risk of type 1 diabetes, type 2 diabetes is often linked to being overweight.

Read about [how to reduce your diabetes risk](#).

**Living with diabetes**

If you're diagnosed with diabetes, you'll need to eat healthily, take regular exercise and carry out regular blood tests to ensure your blood glucose levels stay balanced.

You can use the [BMI healthy weight calculator](#) to check whether you're a healthy weight.

People diagnosed with type 1 diabetes also require regular insulin injections for the rest of their life. As type 2 diabetes is a progressive condition, medication may eventually be required, usually in the form of tablets.

**Diabetic eye screening**

If you have diabetes, your eyes are at risk from diabetic retinopathy, a condition that can lead to sight loss if it's not treated.

Screening, which involves a half-hour check to examine the back of the eyes, is a way of detecting the condition early so it can be treated more effectively.

Read more about [diabetic eye screening](#).

**Getting to know Equipment – Diabetes and Assistive Technology**

You can manage diabetes better and with less stress if you know that you've got everything you need to care for it. You'll also know you're prepared in case of diabetes emergencies.

**Low Blood Sugar Alarm**

The Low Blood Sugar Alarm can detect the symptoms of Hypoglycaemia, low blood sugar, and is suitable for people with Type 1 or Type 2 Diabetes. Styled
like a wristwatch, with a comfortable adjustable strap, this simple to use alarm has two sensors located on the rear of the product.

The sensors, when in contact with the skin of the wrist or ankle respond to perspiration and body temperature (cold sweats), two common symptoms of low blood sugar. If a cold sweat is detected, a built-in vibrator operates along with a tone beeper alarm. The persistent vibration from the alarm is sufficient to disturb most people from sleep enabling a blood test and remedial action to be taken.

This alarm is only for use when sleeping and is not designed or intended to be used as a daytime alarm. When used in accordance with the instruction guide, the alarm can detect early symptoms of hypoglycaemia and reduce the likelihood of more serious complications.

**Glucose Monitoring Supplies**

A glucose monitoring kit helps you track the sugar levels in your blood. It lets you know when they are getting high or low. Kits can include:

- Glucose testing strips
- A monitor, which usually gives readouts within 5 seconds
- A carrying case for the meter and, if you take insulin, your insulin, pens, needles, and alcohol swabs
- Lancets and lancing devices
- Liquid kits, to make sure your meter readings are correct
- Hand sanitizer and possibly cleansing wipes will help keep your hands clean for administering injections or finger pricks in case you are without running water

It would be helpful for sufferers to have copies of important documents; details of all prescriptions and health insurance cards in case you need prescription refills or medical care.

A detailed medical list of medication: this list should include the exact doses and times medications are taken. Also note any allergies you have to medications.

**Visual Aids**

People with Diabetes often experience ongoing and degenerative problems with their vision, particularly if their Diabetes progresses or is not managed well.

The risk for cataracts is 2 to 4 times greater for those who are diabetic. Diabetes is a leading cause of blindness. If a person's eyesight has been effected by diabetes there are assistive technologies available to help the vision impaired.

There are many portable and fixed Magnifiers on the market, including electronic magnifiers, that can be used to magnify text in a newspaper etc., or magnify far away items such as timetables or public information in an airport, railway or bus station. Software magnification for computer use.

There are many other assistive Living Aids for vision impaired such as talking microwaves, talking watches etc.

**Electronic Prompting Aids**

Electronic Voice Organizer: This allows for client to record reminders for snacks, meals, and medication and insulin levels. Commands can be programmed to go off at the same time every day. When the device signals, the person can push play and
listen to the message, this allows for the client to listen to the message when it is convenient for them.

Personal Digital Assistance – PDA can be programmed for auditory prompts, the client can read the message on the screen. There are many PDA’s with voice output for those whose vision has also been affected by diabetes.

**Alarm watch reminder**
The image above shows a Cadex Medical watch. This watch can not only be set to remind someone when to take their insulin or when to eat. It also has a data bank that can hold information such as:

- Name and phone number
- Medical information (diabetes, asthma, epilepsy, aphasia, hemophiliac, Parkinson’s, lupus etc.)
- Allergic reactions (penicillin, bee sting, peanuts etc.)
- Emergency contact and phone
- List of medications, blood type, and date of birth
- Doctor’s name & phone
- Insurance company & policy number.

**Glucose Monitor**
Monitoring glucose levels is essential for the diabetic person because it helps the person and healthcare providers decide what changes need to be made in their treatment program in order to meet the treatment goals. Effective monitoring of glucose levels can help in avoiding some of the complications that arise from Diabetes.

A range of dedicated Glucose Monitors exist in the market that provide a range of functionality, for example many such as the Prodigy presented below contain a memory that stores up to 450 test results and gives averages of 7, 14, 21, 28, 60 and 90 days.

Some also include voice output to assist, in particular those with visual problems reading the LED screens.

More recently, companies are taking advantage of Smartphone technology and are updating their devices to connect with iPhone and Android Apps to make access to such information even easier. Many companies produce glucose and blood pressure monitors. No one monitoring system is ideal for everyone. Features, price, convenience and clarity of instructions vary.

**Pill Dispenser**
A Pill dispenser is simply a device that will make pills available to a person at the time that they need it. This decreases the chances for a person to take too many pills or medication at any particular time, thus avoiding complications relating to taking too much medication etc.
Introducing Droplet  [https://www.droplet-hydration.com/](https://www.droplet-hydration.com/)

Droplet helps those who need additional support to stay hydrated.

Droplet helps anyone who’s at risk of dehydration, in particular those who need additional support to stay hydrated, such as the elderly or those suffering from Dementia, Alzheimer’s or the effects of a stroke. Droplet is the first hydration aid to tackle dehydration by simultaneously supporting both carers and individuals.

The droplet smart base fits onto the droplet mug or tumbler to track whether a drink has been taken. The droplet monitors the frequency of drinking. If the patient forgets to drink, Droplet’s flashing lights and voice messages are an instant reminder.

The heart of Droplet is the Electronic Smart Base.

- The base can be personalised with voice messages from carers or loved ones.
- The base easily attaches onto the Droplet® Mug or Tumbler.
- Droplet adapts to individual needs.
- The Droplet® Flow Control Lid fits easily and securely to the top of the Mug or Tumbler.
- Message 20, 40 or 60 minute intervals or can be switched off.
- Each message is played up to 3 times if the cup is not picked up and tipped.
- Simple to program, colour co-ordinated buttons for easy use.
- Has a night light function.

The Droplet Intelligent Hydration System can be obtained from Amazon

RRP: £45.00
Price: £32.80 & FREE Delivery in the UK

Usually dispatched within 2 to 3 days.

A five piece set contains: Electronic Smart Base, Mug, Tumbler and x2 Flow Control Lids
- Adapts to your needs: Smart Base easily attaches to the Droplet Mug or Tumbler
- Drink detection technology: friendly voice messages and reminder light settings
- Nightlight function allows the user to easily locate their drink
- Made from Tritan which is scratch, shatter, stain and odour resistant

Amazon Link: [https://www.amazon.co.uk/Droplet-1000-Intelligent-Hydration-System/dp/B07DDNBWDQ/ref=sr_1_1_a_it?ie=UTF8&qid=1529319765&sr=8-1&keywords=droplet+hydration](https://www.amazon.co.uk/Droplet-1000-Intelligent-Hydration-System/dp/B07DDNBWDQ/ref=sr_1_1_a_it?ie=UTF8&qid=1529319765&sr=8-1&keywords=droplet+hydration)

This product is available to order from NRS
Introducing Alcove

Alcove provides personalised packages of assistive technology (it’s not just about sensors) for anyone who wants to live independently at home, but needs support to do so.

Wireless movement sensors are placed around the house. Usually high up in the corner of each room you want to monitor. You might have one in the bedroom, bathroom, kitchen and living room. That way you can see how active someone is and know if they suddenly stop moving about as they normally do.

You may put a door sensor on the front door and one on the fridge door. That way you can see people going in or out, or make sure someone is eating enough or potentially at risk of a UTI.

The sensors talk to the Alcove hub, which sends data securely to the cloud. They also pick up heat, light and battery information - giving live system status which is important for safeguarding. You can then see this through Alcove’s app, and set up alerts which are sent as text messages to your phone if something is wrong. You can also (just like telecare) add on optional bed/chair occupancy sensors, moisture detection sensors, and smoke & extreme heat sensors.

The Alcove sensors can monitor usage of bed and chair sensors, a fall detector plus establish if electrical devices are being used.

An advantage is that a number of rules can be set up to be activated sequentially before an alert is triggered. For example, an alert is only sent if a number of sensors are activated in a specific order. If the order is different, the alert doesn’t go off. Alerts are triggered based on set parameters but in general you need to have a combination of time, behavior and location in order to trigger the alert.

Alcove is useful to keep in mind if a more sophisticated monitoring system is ever required and of course can be justified on the basis of need.

For more details: [https://www.youralcove.com/](https://www.youralcove.com/)

Technology Enable Care Training – Provided to Optalis staff by NRS

**TEC - Basic Devices** (All training will start at 9:00 and finish at 15:00)
2019: 25th July, 25th September, 30th October, 27th November
2020: 29th January, 26th February, 18th March

**TEC - Sensory Needs Workshop**
6th November 09:00 to 11:00

**TEC - Advance Training (Pilot)**
2nd October 09:00 to 15:00

**TEC - Pulseguard** (Training starts at 13.30 and will finish at 15.30)
2019: 11th July, 7th November

To book on a training session please email: Training@berkshire.nrs-uk.net, including your name, the name of the session, date and time you wish to attend. All training will be held in the Training Room, NRS Depot, Theale, unless otherwise stated. Certificates of attendance will be provided

Contact the Editor
Did you find this newsletter helpful and informative? Would you like to see a feature on any specific piece of telecare equipment in a future issue? If so contact Michaela Helman with your request: Michaela.helman@rbwm.gov.uk