

“Sweet Talk” – Your Guide to Coping with Diabetes – in Turkish English Script

Introduction

Diabetes is a disease which is on the increase. In many countries this is related to increased affluence. People have more money to spend on processed and high fat foods, as well as on cars and labour saving appliances. This makes us more prone to being less active and overweight- two things which increase the risk of diabetes.

We need to take diabetes seriously; some people with diabetes feel well and think they don't need to control it. But while diabetes might be invisible from outside, it's silently doing damage inside the body and can harm many different organs.

The Risk Factors for type 2 diabetes include:

- Being overweight
- Having (or have had) a blood relative with diabetes.
- having had a baby weighing more than 4 kg
- having had diabetes during pregnancy
- Being diagnosed with impaired glucose tolerance
- Being from a black or minority ethnic group (including Turkish)

Everyone's risk also increases, as you get older. If you are from a Turkish or Kurdish background, your risk of type 2 diabetes is twice that of someone from the UK population

What is Diabetes?

Diabetes mellitus is a condition where the body cannot use glucose (sugar), properly so the level of glucose rises in the blood. We need glucose for energy. Glucose comes from foods such as bread, potatoes, bulgur, couscous, pasta, sugar, honey, cakes, and biscuits. It is also made, by the body, in the liver.

The glucose from the food we eat passes into the blood stream. To use the glucose as energy, it must get into the body cells. To do this there must be insulin available. Insulin acts as a key in a lock. The insulin "unlocks" the cells receptors and allows the glucose into the cells to be used as energy.

In diabetes, the body doesn't produce enough insulin, or it is not able to use the insulin effectively, so the glucose stays in the blood stream, and the glucose levels start to rise. When the levels start to rise, you will start to suffer from the symptoms of diabetes.

The Types of Diabetes

- **Type 1 Diabetes**

Type 1 diabetes is a lifelong condition diagnosed mainly in childhood and young adults. It is often discovered when the person is acutely ill, needing to go to hospital urgently. Treatment is with diet and insulin injections. A person with type 1 diabetes usually has 2 or 4 injections of insulin daily. People with type 1 diabetes would die without the insulin injections as their body has stopped producing any insulin.

- **Gestational Diabetes**

Gestational diabetes occurs only in pregnant women and requires women to have a strict diet and test their blood sugar levels very frequently. If diet alone cannot control the blood sugar levels, pregnant women also need to use insulin injections throughout their pregnancy.

Once the baby is born, the diabetes may disappear. About 6 weeks after the birth, women who had gestational diabetes will have a glucose tolerance test to see if the diabetes has reversed.

- **Type 2 Diabetes**

Type 2 diabetes is a lifelong condition that occurs in about 7% of the Turkish population. Type 2 diabetes occurs in families so if you have a family member with type 2 diabetes, you are at high risk of developing type 2 diabetes. Treatment is with diet and exercise, along with tablets or insulin. Type 2 diabetes is progressive, so the treatment will change over time. This type of diabetes can often be undetected for several years, so if you have or know anyone with the symptoms of diabetes, it is important to get tested to see if the symptoms are caused by type 2 diabetes.

The Symptoms of Diabetes

When the blood sugar levels are higher than normal, you can have some or all of these symptoms:

- feeling thirsty
- drinking lots of fluids
- passing urine more frequently, especially at night
- thrush
- blurred vision
- feeling tired
- weight loss

Visiting your GP

If you think you have diabetes, or have some of the symptoms, you should visit your GP. Your GP will ask you some questions and send you for blood tests, to help to diagnose diabetes.

You might be sent for a glucose tolerance test. This test involves fasting for 12 hours overnight, then attending the hospital for 2 blood tests. After the first blood test you will be given a sugary drink, and two hours later, the second blood test will be taken. The results of this test will tell the doctor if you have diabetes. If you don't have diabetes, the glucose tolerance test will inform the doctor if you have

impaired fasting glucose or impaired glucose tolerance. Both these conditions are important to know you have, as your risk of heart disease is increased with both these conditions.

How to Control Diabetes

Diabetes is a lifelong condition, and type 2 diabetes is a progressive condition. This means that treatment regimens will change over time. Your diabetes specialist will advise if and when you need to change any medication. Throughout your life however, some ways to control your diabetes will not change.

Testing your blood glucose levels should also be part of your routine. Depending on your diabetes control and your treatment regimen, the number of tests you need to do will vary.

The importance of blood glucose monitoring

Blood glucose monitoring should be part of your daily routine. Blood glucose meters are a reliable way of monitoring your diabetes at home. There are several different meters available within the UK. You should be provided with a meter by your diabetes specialist, who will show you how to use it.

Depending on your individual circumstances, your diabetes specialist will advise you when to test your blood glucose. Sometimes it is useful to test before meals, other times it is useful to test 2 hours after meals. The frequency of tests will depend on your treatment regimen and your diabetes control.

Testing your blood can help you understand how different foods and activities alter your blood glucose. It will help you make informed decisions about how to react to everyday events.

For people without diabetes, the normal range from blood glucose levels is 4 – 7.8mmol/L. With all treatments for diabetes, the aim is to keep the blood glucose as near to this range as possible. We usually recommend your blood glucose tests at home should be between 4 – 9mmol/L at all times.

You should write the results of the tests in a diary, and bring the diary or your meter every time you see your diabetes specialist. This will help guide your diabetes treatment and management.

When testing your blood glucose, you should remember to:

- Wash and dry your hands thoroughly before you start
- Check the strips are not out of date, or the pot has not been opened for too long
- Prick the side of your finger, not the middle
- Try not to use your thumb or forefinger for testing
- Record the results in your diary

Dispose of needles and strips safely

Diet and Exercise

The first step to controlling your diabetes should be to alter your diet. A dietitian or diabetes specialist will give you individual advice on how to do this. Any changes that you need to make should be made by your whole family, so you can all eat healthily together. And you should aim to eat five portions of fruit or vegetables per day

Exercise is also an important part of your diabetes treatment, and should be part of your daily routine. You should aim to do the recommended amount of 30 minutes of exercise at least 5 times per week, combined with 10 000 steps per day, if not restricted by disability.

Tablets for diabetes

There are several different medicines for type 2 diabetes. They can be classified into these groups.

Metformin
Sulphonylureas
Metaglinides
Acarbose
Glitazones

We will describe each in some detail:

- **Metformin**

Metformin works by making your body use insulin more efficiently and by suppressing the liver from releasing glucose during the night. Metformin is usually the first tablet prescribed to people with type 2 diabetes.

- **Sulphonylureas**

This is a group of medicines which help the pancreas to produce more insulin. The tablets include gliclazide, glibenclamide, glimepiride, glipizide. These tablets can cause hypoglycaemia if the dose is too high.

- **Metaglinides**

There are two tablets in this group, repaglinide and nateglinide. These tablets are taken before each meal, and help the pancreas produce more insulin for a short duration.

- **Glitazones**

Rosiglitazone and pioglitazone are the two tablets in this group. These tablets can be taken at any time of the day. They make your cells more sensitive to the insulin already in the body.

- **Acarbose**

Acarbose should be taken with each meal, with the first mouthful of food at each meal. It works by stopping the body absorbing all the sugar from each meal.

Insulin Injections

If you have type 1 diabetes, or have type 2 diabetes which cannot be well controlled with tablets, you will need to have insulin injections. There are several different types of insulin and insulin pens, along with different types of regimen, depending on your circumstances.

In type 1 diabetes, a basal bolus regimen is ideal. This involves 2 different types of insulin, one is the basal insulin taken once a day, the other is taken with each meal, or each time we eat carbohydrates. This usually involves 4-5 injections per day. The dose you take with each meal should be varied, depending on the amount of carbohydrate eaten. This should balance the blood glucose readings so that the level is always between 4 – 9mmol/L.

In type 2 diabetes, various regimens are used. The regimen you use will depend on individual circumstances.

Some people will use the basal bolus regimen as previously described

Others will use a twice daily regimen, using mixed insulin. Twice daily insulin injections are usually given before breakfast and evening meal. This regimen is good for people who lead a regular lifestyle.

Some people will have once daily injections, with tablets.

Your diabetes specialist will suggest a regimen that will suit your lifestyle. They may recommend that you take tablets as well as the insulin. You will be taught how to give the injections, where to put the injections, and how to use the pen devices.

When using insulin and blood glucose testing monitor, you should dispose of the needles and lancets safely. Your GP should provide you with a needle clipping device and a sharps bin for safe disposal of needles.

Diet and Diabetes

A healthy diet is an essential part of diabetes management, helping to control blood glucose (sugar) levels and achieve a healthy weight.

It is important that any dietary advice is tailored to individual needs and is specific to your type of diabetes.

In type 1 diabetes, in combination with a healthy diet, you may be taught how to use carbohydrate estimation to allow more flexibility in eating; by matching your meal time insulin with the carbohydrate eaten. Your diabetes specialist will discuss this in detail with you.

In type 2 diabetes, we recommend carbohydrate foods which break down slowly, combined with healthy eating. Healthy eating is recommended for the whole family.

We will be going through the following topics about a healthy diet in this chapter:

- Eating regular meals
- Making carbohydrate the basis of all meals
- The glycaemic index
- Sugar
- Fat
- Fibre
- Alcohol

Importance of Regular Meals

Eating regular meals helps to control your blood glucose levels, by releasing small amounts of energy throughout the day. This will help prevent your blood glucose levels from going too high or too low.

It doesn't matter what time you get up or go to sleep, but it is best to follow these basic rules:

- Always start the day with breakfast
- Aim for 3 meals a day.
- Do not skip meals. If you do not feel hungry just have a light snack such as fruit, yogurt, or some soup and wholegrain bread.

Carbohydrates

Carbohydrate foods include bread, cereals, pasta, rice, bulgur wheat, couscous, pitta bread; starchy vegetables such as potatoes, corn, yam, cassava and sweet potato; and crackers. It is also found in smaller quantities in lentils and beans, such as baked beans and chick peas; most types of fruit and dairy products.

Carbohydrates provide our body with energy. When they are digested in our stomach they are broken down into glucose which provides our body with fuel; much like petrol which is the fuel for a car. It is important that we control the amount of carbohydrate that we eat, so that we provide our body with enough energy but also that we don't raise our blood glucose levels too high.

1. It is important that when you eat, have about 1/3 of your plate as carbohydrate foods. More than this may make your blood glucose rise too high

"The rest of the plate should be made up of a third of protein foods such as meat, chicken, fish, beans or pulses, and the other third of vegetables or salad" If you are trying to loose weight, half of your plate should be full of vegetables or salad, with smaller portions of other foods.

2. Try to eat similar amounts of carbohydrate at each meal.
3. Choose slow releasing carbohydrate foods (low glycaemic index)

Glycaemic Index

The glycaemic index, G.I., is a ranking carbohydrate foods based on their effect on blood glucose levels. Carbohydrate foods that break down slowly, releasing glucose into the bloodstream gradually, have the lowest G.I. factors. Those that break down quickly, cause marked fluctuations in blood glucose levels, and have the highest G.I. factors.

The only part of food which directly affects blood glucose levels is carbohydrate. Therefore meat, fish, fats and non-starchy vegetables do not affect your blood glucose levels.

The type of carbohydrate in the diet is important for people who have diabetes. By eating mainly low GI carbohydrate foods, that slowly trickle glucose into your blood stream, it will help to improve your blood glucose control. A good way to remember this is "low and slow". A low G.I diet also has other benefits such as: controlling weight by helping to reduce appetite and delay hunger; and reducing blood cholesterol levels.

High G.I. foods are only a good choice when being used to treat low blood glucose levels. This is because you need to increase your blood glucose quickly.

Some examples of low, medium and high glycaemic index foods are:

High G.I.	Medium G.I.	Low G.I.
Cornflakes	Couscous	porridge
Bagel	Boiled new potatoes	Chick Peas
White Bread	Pitta Bread	Baked Beans
Baked Potato	Basmati rice	Bulgur Wheat
Watermelon	Banana	cherries
Chips	Mars bar	yoghurt

The glycaemic index of a carbohydrate food is affected by a number of different factors such as cooking and processing. Taking pasta as an example, if it is over-cooked it can be digested more quickly and cause a rapid rise in blood glucose after eating. Pasta cooked according to the directions on the packet however has a low G.I. Highly processed foods, such as white bread made from fine flour, also cause blood glucose levels to rise quickly.

Fat on the other hand reduces the glycaemic index of foods, which is why foods such as chocolate and nuts have a low G.I. The glycaemic index of foods therefore should not be the only guide for your diet. Choosing a healthy, balanced diet, with limited fat, is the first priority.

Slow releasing carbohydrates (medium to low GI) include:

Wholegrain and Granary breads, bread with seeds in, such as soya and linseed breads, oatmeal and rye bread.

If you are having pitta bread, the wholemeal variety is best

Good choices of breakfast cereals include porridge oats, muesli, All Bran, Fruit and Fibre, Shredded Wheat, and Special K. Cereals such as Cornflakes or rice krispies are not good choices as they are very processed and will raise your blood glucose too quickly.

Potatoes vary greatly, depending on variety and how they are cooked. Small new potatoes and sweet potatoes are good choices. Boiling is the best way to cook.

Varieties of rice also vary greatly in how fast the glucose is released into the body. Good choices are: Basmati, long grain and Uncle Ben's brand rice

Any kind of pasta is fine, as long as it is not overcooked. You should always follow the instructions provided.

Bulgur and couscous are both good choices as are lentils and beans, including baked beans

If you are having biscuits and crackers, choose biscuits such as rich tea, digestives or garibaldi. If you are having crackers choose the wholegrain varieties, such as Krackerwheat, Ryvita or Jacobs Choice Grain

All fruit is good; aim for 2-4 portions a day. When it comes to fruit juice, only have 1 small glass a day, as this has concentrated amounts of sugar. You could dilute this with water or diet lemonade to make a longer drink.

In summary, when choosing carbohydrate containing foods, those that are slowly digested and absorbed into the blood stream; low glycaemic index; provide the best blood glucose level control.

Sugar

Table sugar and most other sugars will have a big affect on your blood glucose levels when they are eaten or taken in drinks.

For this reason it is advisable to avoid sugary drinks, such as Coke, Lemonade, Ribena, Lucozade, as they contain up to 12 teaspoons of sugar per can. Try to choose Diet or light fizzy drinks, No added sugar squashes and water.

Honey, maple syrup, white and brown sugar can all raise blood glucose levels, and should be avoided where alternative are available.

You can use artificial sweeteners in powder or tablet form to replace sugar on cereals, in drinks and in baking. They come in many different varieties, are all safe to use. You may want to limit products contain Sorbitol as, used in excess, they can cause diarrhoea.

Cakes, biscuits, chocolates etc are all usually high in fat, sugar and refined carbohydrates. They should be saved for special occasions as they have little nutritional benefit and are high in calories and fat.

Some sugary foods to avoid are:

- Cookies and biscuits
- Cakes
- Baklava
- Chocolate
- Turkish delight

Fat

Eating too much fat can cause weight gain, increase your cholesterol levels and increase your risk of heart disease. If you carry extra weight around your waist, your body may be particularly resistant to diabetes treatments.

It is important therefore that you reduce total fats in your diet, particularly saturated fats, which can raise blood cholesterol levels. Saturated fats are found in animal products, such as cheese, full fat milk, cream, meat, chicken, and takeaway foods.

When preparing meat, take the skin off the chicken, trim all fat of meat, grill or bake foods instead of frying.

When having milk and cheese, choose low fat versions.

If you are having take-aways, limit them to once a week and choose low fat options such as grilled meats, boiled rice and lots of salads.

It is better to choose vegetable fats, such as olive oils, sunflower based spreads and rapeseed oils. Remember to use only small amounts, as these fats will still make you gain weight if you have too much.

Try and reduce high fat foods such as mayonnaise, crisps, nuts, cakes, baklava, humous and biscuits.

Omega 3 fats are found in oily fishes such as herring, kippers, mackerel, salmon, sardines and pilchards.

Fibre

Fibre is an essential part of a healthy diet. Fibre can help to control your blood sugar levels, and aids digestion.

Fibre is found in pulses, beans, oats, wholegrain breads and cereals. It is also found in fruit and vegetables. Try to have 5 portions of fruit and vegetables a day.

For healthy digestion:

- Eat at least 5 portions of fruit and / or vegetables per day
- Drink at least 2 litres of water per day

Alcohol

Alcohol is high in calories which can cause weight gain. It can also cause blood glucose levels to go to low if taken in large amounts.

Try to drink in moderation, for example 2-3 units per day. 1 unit is equal to 1 small glass of wine, ½ pint beer, 1 pub measure spirits.

Have at least 2 or 3 alcohol-free days per week.

Try to have no more than the recommended amount per week:

- 14 units for women
- 21 units for men

Always eat some slow acting carbohydrates when drinking alcohol. Alcohol on an empty stomach can increase your chance of hypoglycaemia or low blood glucose.

Choose sugar-free, diet or slimline mixers, if adding them to your drinks.

Summary

In summary:

1. Eat regular meals
2. Choose long acting carbohydrates
3. Eat at least 5 portions of fruit and / or vegetables per day
4. Try to cut down on high calorie and high fat foods and snacks
5. Drink plenty of water
6. Drink alcohol in moderation.

When you were diagnosed with diabetes, you should have seen a dietitian. A dietitian is a health professional who specialises in dietary advice. For more specific advice for your lifestyle and circumstances, ask your GP for a referral to a dietitian who will be able to help.

Exercise

Regular exercise is part of the treatment for diabetes. Regular exercise can:

- reduce your blood glucose levels
- improve your diabetes control
- help maintain a healthy weight
- help reduce your weight, if you need to lose weight
- reduces your risk of cardio-vascular diseases
- lowers blood pressure
- boost your immune system
- improve mood and reduce the chance of depression.

There are many forms of exercise, and if you can incorporate them into your daily routine, you should be able to sustain the exercise.

Some examples of everyday exercise are:

- walking up stairs instead of using lifts
- walking up moving escalators
- for short journeys, walking instead of driving
- doing the housework at "double-time"
- DIY and gardening, such as painting or raking leaves
- Get off the bus one or two stops early and walk

The recommended amount of exercise for everyone is 30 minutes at least 5 times per week. This time does not have to be all at once, it can be in 2, 15 minute sessions, or 3, 10 minute sessions. The exercise should make you feel a little out of breath, and your face should be flushed.

To gauge your fitness, invest in a pedometer, the recommended minimum number of steps per day is 10000. This sounds like a lot, but try it, you may be surprised at how many you already do. If you don't reach this target, build up slowly and set small achievable targets, building more exercise into your daily routine.

Exercise on prescription

In many areas of the country, exercise on prescription is available for people with diabetes and other chronic conditions. This is a prescription from your GP or practice nurse which allows you several sessions in local leisure facilities. Programmes are usually 8-12 weeks long, and have a choice of many different types of exercise, including:

- Using the gym
- Spinning(exercise bike)
- Aerobics classes
- Swimming
- Aqua aerobics
- Keep fit classes
- Walking groups
- Over 50's sessions
- Women only sessions

Walking groups

Many areas now have organized walking groups, at various levels of ability to suit all people, from those who have never exercised before, to those who want a fast walking group. Groups are usually from half an hour, up to one hour in duration. You can find out about walking groups from your local council. Your diabetes specialist should have information about local groups in your area.

Exercise should be enjoyable, why not try:

- Turkish Folk Dancing
- Seated exercise for those with mobility problems
- Table Tennis
- Jogging or running
- A walk in the park
- Try Yoga, which can help you relax
- Cycling, perhaps to work, or to visit friends
- Tennis
- Golf
- Basketball
- Football

Try a new activity and see if you enjoy it! And, don't forget to take part in the Diabetes UK annual Walk in the park, in diabetes Week.

The Complications of Diabetes and Importance of Annual Review

Diabetes is a disease which can cause some long term complications. They are described in detail in the next few minutes. All the complications of diabetes are more likely to occur when the diabetes is poorly controlled. If you can control your diabetes with diet, exercise, medications and insulin, so your blood sugar levels are always less than 9mmol/L, your risk of the complications of diabetes is significantly reduced.

To ensure all people with diabetes are screened for the complications of diabetes, everyone with diabetes should have an Annual Review of their diabetes. This appointment is usually carried out by your GP or practice nurse, but may be carried out in a hospital diabetes clinic.

At the appointment you will be able to discuss your diabetes. Your GP or nurse will perform several examinations and tests during the appointment. These are described in the following sections.

Blood Tests

Before the annual review, you will be asked to have some blood tests taken. These will be for several tests, including:

- **HbA1c**

This is a measure of how well your diabetes is controlled. It gives a measure of your blood glucose control over the past 3 months. Everyone will have a different level but we aim for a level of 6.0 – 7.5%, depending on your treatment regime. Your diabetes specialist will give you a target level for your HbA1c.

- **U&Es (Urea and Electrolytes)**

This is a group of tests which measure your kidney function. Diabetes is the biggest cause of Kidney Failure in the UK, it is important that your doctor reviews these tests annually. If the levels are not normal, your doctor will discuss with what the results show.

- **LFTs (Liver Function Tests)**

These tests look at your liver function. These tests are important if you take cholesterol tablets and also contain various other markers. If there are any problems with these tests your Doctor will discuss these at your Annual Review.

- **Lipids / Cholesterol**

This test usually combines 4 tests in 1. The results will give a total Cholesterol to LDL cholesterol ratio, which should be less than 4.0. In people with diabetes the target levels for Cholesterol, are tighter than for the general population, as the risk of heart disease caused by high cholesterol is higher for people with diabetes. If your cholesterol levels are too high, you will be given dietary advice to reduce it, and may be prescribed tablets known as Statins.

- **TFTs (Thyroid Function Tests)**

These tests are a screening test, as thyroid diseases are more commonly found in people with diabetes. If these tests are abnormal, you may need medication to correct the imbalance in your thyroid function

Heart Disease and Smoking

Cardio-vascular diseases are the most common complications in people with diabetes. Damage to the heart and blood vessels is caused by poorly controlled diabetes and the build up of cholesterol on the linings of the blood vessels.

The build up cholesterol can reduce the width of the blood vessels, which can result in a heart attack or stroke. Cardio-vascular disease is a major cause of ill health and death in the UK population in general. However, people with diabetes have four times the risk of coronary heart disease, stroke and circulation problems.

You can reduce your risk of cardiovascular disease by:

- Stopping smoking,
- Doing regular exercise, at least 30 minutes 5 days per week
- Loose weight (if overweight)
- Decreasing amount of fat in your diet
- Reduce the amount of salt in your diet
- Having your blood pressure and cholesterol checked regularly
- Take your diabetes, blood pressure and other prescribed medications regularly.

You may also be prescribed medications which reduce your risk of cardio-vascular complications, such as low dose aspirin, and if your cholesterol is raised, a medication is often prescribed to lower it.

Diabetes and Smoking

Cigarette smoking is a major cause of many illnesses, including cancers, heart disease, chest problems, poor circulation and loss of sense of taste and smell.

When you have diabetes, you have a higher than normal risk of cardio-vascular diseases. If you can give up smoking, your risk of cardio-vascular diseases is reduced, reducing your risk of a heart attack, stroke, amputation and painful vascular diseases.

Stopping smoking is not easy, but the benefits will out-weigh any temporary withdrawal effects. If you stop smoking with a friend or partner, this can make it easier.

Support is available from:

- Your practice nurse or GP
- Local hospital
- The NHS smoking helpline on 0800 169 0169
- Your local pharmacist

There are many types of support available to help you stop smoking, here are some of them:

- Group support sessions
- Individual support sessions
- Nicotine replacement, such as patches, gums, inhalators, nasal sprays, micro tabs, lozenges
- Supervised medications

One of the most important parts of giving up smoking is setting a date to stop. Talk to your health professional soon to set a date and plan the support you prefer.

Kidneys

Diabetes is a major cause of kidney disease, called Diabetic Nephropathy. Your kidneys are important for filtering waste products from the body and eliminating these products through urine production. In severe kidney disease the kidneys may stop working, so a dialysis machine would be used as a replacement.

As with all the complications of diabetes, the risk of diabetic nephropathy increases with poor diabetes control. High blood pressure will also increase your risk of Kidney Disease. Your blood pressure should be lower than 140/85. To reduce your risk of diabetic nephropathy/kidney disease you can do the following:

- Reduce the salt intake in your diet
- Stop smoking
- Have your blood pressure checked regularly and take any medications prescribed on a regular basis
- Take your diabetes medication regularly

Your doctor or nurse will also do some tests at your annual review, to check your kidney function. This will include:

- Taking an early morning specimen of urine – to test for protein
- Performing routine blood tests to check your kidney function and your diabetes control

Foot Care

When you attend your GP surgery or the hospital clinic for your annual review, the doctor or nurse will examine your feet and look for potential problems caused by diabetes.

They will check for:

- pulses in your foot, to look for good blood circulation
- sensation, or feeling in your foot, using a monofilament
- they may also check for vibration, using a tuning fork

At home you can look after your feet to help prevent problems. You should

- Wash your feet daily with simple soap and water
- Cut toe nails straight across, not too short.
- File you nails to get rid of sharp edges
- Look between your toes for any problems. If you get moist skin between the toes, you can apply surgical spirit if you have dry skin, or hard areas of skin, apply moisturiser daily, on the top and bottom of you feet, but not in between the toes
- Wear clean socks at least daily, and chose ones which do not have restrictive elasticated areas
- Always wear shoes inside and outside. You should wear shoes with fastenings, such as laces, buckles or Velcro. Slip-on shoes are not recommended as they can damage your feet. Always check your shoes don't contain stones, etc before putting them on.

Eyes

Diabetes is the biggest cause of blindness in people under 65 years of age in the UK. This is due to changes in the Retina at the back of the eye, called Retinopathy. Diabetic Retinopathy is more likely to develop in people who have poorly controlled diabetes. Therefore, if your diabetes is well controlled, you are less likely to develop problems, or they may be less serious.

Most loss of vision due to diabetes can be prevented, but it is vital that any changes are diagnosed early. These can only be detected by a detailed examination of the eyes. Your GP should refer you to a special centre for retinal screening, which will involve:

- Reading an eye chart through pin holes to test visual acuity
- Having drops put in your eyes to dilate your pupils
- You will then have to wait for 20-30 minutes for the drops to work
- After this, you will have a photograph taken of the retina at the back of the eye
- You may also have an eye examination by a doctor or specialist in eyes

This examination should take place once a year. With regular screening, any problems with the retina can be treated early and prevented from deteriorating further.

It is important not to drive to the appointment as the eye drops will affect your vision for up to 4 hours.

Special Issues

Hypoglycaemia

For people with diabetes, Hypoglycaemia, also called a Hypo, can occur. A hypo occurs when the blood glucose is less than 4mmol/L. It can be caused by:

- Too much medication
- Not enough food, or too long between meals
- More exercise than usual, or unplanned exercise
- Drinking too much alcohol

Many people will suffer from a hypo occasionally, but if you are well prepared and are able to control your diabetes, hypos should be minimal and easy to treat.

Hypos have very distinct symptoms, including some of these:

- Hunger
- Dizziness
- Sweating
- Palpitations
- Pins and needles around the mouth
- headache
- A blood glucose level of less than 4mmol/L

Wherever you are, you should be prepared to treat a hypo. The treatment is quick and effective and there are two stages:

1. You need to have some fast acting carbohydrate, to bring the blood sugar levels back to normal levels, such as:
 - 3-4 dextrose / lucozade tablets or
 - small glass of coke or lucozade
2. To ensure your blood glucose does not drop again, you need to have some slow acting carbohydrate, such as:
 - a piece of fruit
 - a yoghurt
 - a sandwich
 - 2-3 biscuits
 -

If you have a hypo more than once a month, you should discuss this with your diabetes specialist, as you may need some specific advice to stop this happening, or a change in medication

Illness and Preventing illnesses

People with diabetes are more at risk of becoming very unwell when they have flu or pneumonia. To reduce your risk of getting flu or pneumonia, you are entitled to have a flu and pneumonia vaccines. The flu vaccination differs every year. So you should have this vaccine on an annual basis, usually in October. The pneumonia vaccine is a one off dose, so if you have not had this, ask your GP about it and get protected!

Advice for when you are feeling unwell

When you have diabetes and are unwell, your body releases hormones that cause your liver to release glucose and interfere with the action of insulin. That makes your blood glucose rise, sometimes to dangerously high levels.

When you are ill, your diabetes will be harder to keep controlled. To help keep your diabetes controlled, you should:

1. Always continue taking your diabetes tablets and/or insulin

2. Check your blood glucose more regularly, as least 4 times a day – to see if you need to alter your treatment or seek medical advice
3. Drink plenty of water (at least a glass full per hour) – to avoid dehydration
4. If you cannot eat solid food, and your blood glucose is low, replace meals with soups, sugary drinks, milk - to give you energy to fight the illness
5. If your blood glucose is high, you should drink calorie-free liquids such as broth, sugar-free fizzy drinks, caffeine-free soft drinks.
6. If you take insulin and have high blood glucose levels, you can increase your meal time insulin dose as you have been advised by your diabetes specialist

If you have type 2 diabetes and any of the following symptoms, you should seek medical advice

- Your illness is not improving after two days.
- You have had very high blood glucose for longer than 24-48 hours
- You have an illness which needs medical treatment
- You have been unable to drink any fluids for over 4 hours

If you have type 1 diabetes and any of these symptoms, seek medical advice urgently

1. If your blood glucose is higher than 15mmol/L and you have urine ketones
2. If you have stomach pains or nausea and vomiting
3. Rapid breathing or a rapid pulse
4. Weakness or tiredness, difficulty staying awake,
5. Blurry vision
6. Cracked lips or dry mouth
7. You have been unable to drink any fluids for over 4 hours
8. You have an illness which needs medical treatment

Travel

Regular travelling is now a part of everyday life for many people. When you have diabetes you need to ensure you are travelling safely and are well prepared.

Travelling short distances

For even short distances such as a going to work, a shopping trip or hospital appointment, you need to be prepared for potential problems; the most common problems are hypoglycaemia and forgetting to take medication.

Points to remember are:

- Have I remembered to take my medication?
- Should I take my medication with me in case I am delayed?
- Have I got some carbohydrate with me in case I miss a meal? – such as dextrose tablets, a piece of fruit, a couple of biscuits
- Have I got my Diabetes Identification card with details of my next of kin?
- Do I need to take my blood glucose meter?

Overseas travel

Travel overseas for holidays and visiting family is part of many people's lives. When you have diabetes you should make sure you are prepared for both your journey and your stay.

Planning for your journey

Your journey may be several hours, so make sure you have the following

- Blood glucose meter, strips, lancets

- Enough medication in your hand luggage for at least 48 hours
- If you take insulin, remember to pack this in your hand luggage. Also, have a Letter from your health professional explaining you need to carry insulin, needles etc
- Emergency food supplies and treatment for hypoglycaemia
- Identification card

Planning ahead for you holiday

If you plan your trip well, you will be able to enjoy your holiday without any problems. Your diabetes specialist Nurse can help with specific advice for you.

For all overseas travel you should ensure you:

- Take a simple first aid kit containing items you might need, such as plasters, pain killers, treatment for diarrhoea
- Have adequate treatment for hypoglycaemia
- Take twice as much medication as you require
- If you take insulin, keep it cool and intact. Take plenty of needles, a spare pen and a sharps bin
- Check if you require vaccinations and malaria prophylaxis as early as possible before departure
- Pack sun protection – i.e. a hat, long sleeved clothes and high factor sun cream

Whilst you are away, check your blood glucose regularly. Be aware that your usual lifestyle changes when you are away from home. You may eat more or less and exercise more or less than usual. If you take insulin your dose may need to be altered to adjust for this. Don't forget to enjoy your holiday!

Ramadan and Fasting

Many people have fasting days during the year, and for followers of Islam, Ramadan is a time of fasting in daylight hours, for about 28 consecutive days.

When you have diabetes, fasting needs to be planned, you may have to change your medications, alter your doses of insulin, or take different medications or insulin for the time of Ramadan.

If you are fasting you are also at higher risk of hypoglycaemia. If you are planning to fast for Ramadan you must think about the following:

- Do I need to seek medical advice about changing my medications?
- How long will the fasting day be?
- How hot will the weather be?
- Is it sensible to fast?

Ramadan is a festival which moves throughout the year. In the winter months (October to March), with some simple changes to your regimen, fasting should be safe for most people with diabetes who wish to fast. In the summer months, however, the fast can be up to 18 hours. The temperature is also higher, and the serious risks of ill health are both from hypoglycaemia and dehydration. Prevention of dehydration is essential to prevent many problems, and you may have to consider not fasting when the weather is hot and the fast is very long. You should contact your diabetes specialist or Imam for more detailed advice for your circumstances.

Driving

Having diabetes does not prevent you driving a car or motorbike, as long as your diabetes is well controlled and your doctor agrees you are safe to drive.

It is your responsibility to inform the Driver and Vehicle Licensing Agency (DVLA) if you are taking tablets (except Metformin only) or insulin to treat your diabetes. Driving licenses have to be reapplied for every 3 years. You also need to inform your insurance company that you have diabetes. At each renewal, update them on any change in your condition or its treatment.

If you have diabetes treated with insulin you are not able to hold the following types of driving license:

- Heavy Good Vehicle (HGV)
- Public service vehicle (PSV)
- Pilots License

There are also local restrictions on Taxi's. If you need insulin therapy and hold one of these licenses, speak to your health professional who can give you specific advice to your situation.

Before setting off and during a long journey, you should ensure you have some essential items with you, so you can drive safely and reduce your risk of accidents.

- Ensure you have some treatment for hypos (short acting carbohydrate), long acting carbohydrate, water, a supply of your medications
- Stop every 1½ - 2 hours and test your blood glucose level. If it is lower than 6mmol/L, eat some long acting carbohydrate, such as a sandwich
- If you feel a hypo is starting, stop the car, take the keys out of the ignition, move into the passenger seat and treat the hypo with some short acting carbohydrate, such as 4-5 glucose tablets, then have some long acting carbohydrate, such as a sandwich. Do not start to drive again until your blood glucose is back up to 6mmol/L