



# Diabetes Education Booklet

Self Healthcare Empowerment Initiative (SHEI)

# Know About Diabetes:

- What is Diabetes?
  - Diabetes is a serious life-long health condition that occurs when the amount of sugar in the blood is too high because the body can't use it properly.
  - Anyone can develop diabetes, even children
  - Diabetes is a condition that needs to be checked on a regular basis, as it is a condition that will change over time.
  - If left untreated, high blood sugar levels can cause serious health complications (problems).
  - Once you have diabetes it will not go away but keeping sugar levels under control can limit the chances of developing problems in other parts of your body through diabetes.
- You may have diabetes if you are experiencing any of these complaints:

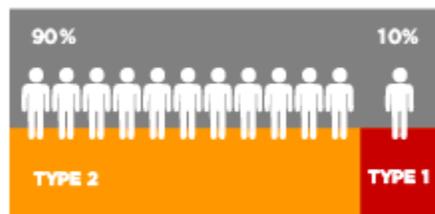
## SYMPTOMS OF TYPE 1 AND TYPE 2 DIABETES MAY INCLUDE



- Excessive thirst
- Excessive hunger
- Blurry vision
- Frequent urination (you wake 3 or more times in the night to urinate)
- Fatigue (particularly after eating)
- Feeling irritated for no reason
- Wounds that don't heal or heal slowly
- Weight loss - even though you are eating more (type 1)
- Tingling, pain, or numbness in the hands/feet (type 2)

- What are the different types of Diabetes?
  - There are two main types of Diabetes- Type 1 and Type 2.

## DIABETES



- What is type1 diabetes?

- Type1 diabetes is when your body makes little or no insulin thereby causing high levels of blood sugar.
- Your body gets sugar from the foods you eat, Insulin is a hormone which is made in your body that helps the break down of sugar from the food so that it can be used for energy.
- Although type 1 diabetes usually appears during childhood or adolescence, it can also develop in adults.
- Type 1 diabetes signs and symptoms can appear relatively suddenly.
- Consult your doctor if you notice any of the above signs and symptoms in you or your child.

- What is type 2 diabetes?



- Type 2 diabetes also affects the way your body handles sugar in your blood.
- Type 2 is the most common form of diabetes, accounting for more than 90% of all cases of diabetes.

- What are the risk factors for diabetes?



- Type 2 diabetes has several risk factors. Most commonly it is a combination of genetic (family) factors and lifestyle factors (bad eating habits, weight gain, lack of physical activity). Excessive weight gain
- Family history of type 2 diabetes in a first-degree relative (e.g. parent or sibling)
- History of previous abnormal blood tests (prediabetes)
- History of diabetes developed during pregnancy or of delivering a baby with a birth weight of over 9lb (gestational diabetes)
- Genetic risk factors (hereditary)

- If you are 45 years and above and exposed to one or more of the above listed factors (though, type 2 diabetes is occurring with increasing frequency in young individuals).
- A combination of these factors can cause your body to make less insulin and at the same time form insulin resistance, which means your body doesn't use insulin as well as it should.
- Insulin resistance (when your body is unable to fully utilize the insulin it produces) is the most common cause of type 2 diabetes.



- How do you manage diabetes?
  - People living with diabetes need to do the following:
    - Take insulin/medication every day as prescribed by your doctor.
    - Eat a healthy, balanced diet and stick to a diabetes meal plan.
    - Check their blood sugar levels several times a day.
    - Get regular physical activity.
- What is considered pre-diabetes?
  - Prediabetes is a “pre-diagnosis” of diabetes—you can think of it as a warning sign. It's when your blood sugar level is higher than normal, but it's not high enough to be considered diabetes... But here's the good news: it is possible to prevent prediabetes from developing into type 2 diabetes.

## Keep an Eye on Diabetes



- If you have diabetes, it is very important to keep an eye on your diabetes through regular/daily (short term) and periodic (long term) blood tests to check the blood sugar level in your body.

- Short and Long Term blood tests are important because some people do not have any symptoms even when their sugar levels are high, but if you feel thirsty, are passing urine frequently, feel tired, or have any other symptoms that you associate with diabetes, it may indicate that your blood sugar levels are high.
- Unexpected weight loss may indicate raised blood sugar levels and should be discussed with your nurse or doctor.
- Some people also experience low blood sugar level, this can happen when people take certain tablets and insulin to achieve normal blood sugar levels.
- If you feel dizzy or sweaty and your blood sugar drops below guideline, this should be treated with sugary drinks or sugar tablets and should be discussed with your doctor or nurse.
- What is Short-Term Test?



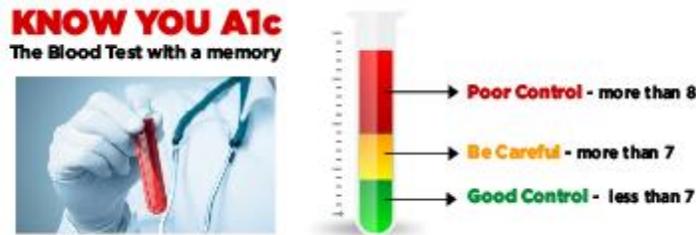
- Short term test is when you measure the blood sugar level in your body using a blood glucose meter.  
The result will give you an immediate indication of blood sugar level
- What is a glucose meter?
  - A glucose meter is a medical device used to measure an approximate level of sugar in your blood.
  - Your doctor or nurse will explain how to obtain this equipment.
- Why do short-term test?
  - Testing your blood for sugar level tells you how much sugar is in your blood at that moment in time when you do the test. This is a recommended daily test.
- What might affect my test results?
  - You can observe the effect on your urine or blood sugar levels by testing your urine or blood at the time of:
    - Activity/exercise
    - Medication
    - Meals and certain foods
    - Illness
    - Stress
- Why should I test my blood?
  - Testing your blood tells you if the changes you have made are working and if they are helping to keep your blood sugar under control.
- When should I do my tests?

- Work with your doctor or nurse to decide useful times for you to test. It is recommended that you check your blood sugar level as often as:
    - *First thing in the morning (before breakfast)*
    - *Before meals*
    - *Two hours after your meals*
    - *Before and after activity*
    - *Before and after certain foods*
    - *During illness or if you feel unwell*
    - *To see the effect of medication when your medication has been changed*
  - It is a good idea to keep a record of these results together with other information, to help you monitor your progress.
  - ‘Manage Am’ mobile app can help you to keep a record of your results.
  - If the tests show high levels of sugar, it may be a good idea to test more frequently and continue with the changes to your food and activity levels.
  - If tests continue to show high levels of sugar, you will need to discuss this with your doctor or nurse.
  - A regular record of test results will help give a better idea of your level of control.
- What does the reading on my glucose meter mean?
    - The meter shows you a number that tells you the amount of sugar there is in your blood at the time of testing.
    - The table below tells you what they mean.

Glucose Meter Levels		What it means	
		Target	Poor
Before Meal	mmol/L	4.4 – 7.2	Over 7.2
	mg/dl	80 – 130	Over 130
2hrs After Meal	mmol/L	Less than 10.0	Over 10
	mg/dl	Less than 180	Over 180

- What can I do if reading is in the “Poor” Range?
  - It means blood sugar level is too high. You should do the following:
    - Drink lots of water
    - Cut down on carbohydrates (sugars) until your blood sugar level comes down, but do not fast
    - Do extra blood test (every four hours)
    - Consult your doctor to adjust your medications if your reading is still high.
- What is Long-Term Test?
  - There are other ways of monitoring your sugar control in the long-term.

- You may have a blood sample taken from your vein to test your diabetes control.
- This test is called “Hemoglobin A1c (HbA1c)” and it is usually done in a laboratory.
- **What is the A1c test?**
  - The A1C test is a blood test that provides information about a person's average levels of blood sugar, over the past 3 months. The A1c test is sometimes called the hemoglobin A1c (HbA1c).



**REMEMBER:** The long-term (A1c) test and your short term (glucometer home self-monitoring) test together will give a clearer picture of your blood sugar levels.

## Take Charge of Diabetes



You can take charge of or keep your diabetes under control by doing the following:

- ✓ **Take charge and reduce your Blood Sugar**



### Short-term

- Reduce amount of sugary foods
- Reduce portion size of starchy foods
- Physical activity/exercise
- Medication

### Long-term

- Eating less fat and saturated fat
- Stop alcohol completely if you can, but if you can't then try to reduce intake
- Losing weight and reducing waist circumference
- Being more active

### ✓ **Take charge and Reduce Blood Pressure**

- Being more active
- Take medication
- Losing weight and reducing waist measurement
  - Food choices: eat food with less salt
  - Eating more fruit and veg (5 portions a day minimum)
  - Stop alcohol completely if you can, but if you can't then try to reduce your intake to healthy limits
  - Smaller food portion sizes leads to weight loss.

### ✓ **Take charge by Lowering your Cholesterol**

- Being more active
- Taking medication – (speak to your doctor)
  - Food choices: Having less salt
  - Eating less fat
  - Changing from saturated to monounsaturated fats
  - Eating more fruit and veg portions (5 per day minimum)

### ✓ **Take charge by Managing Depression**

- Medication - discuss with your doctor
- Physical activity
- Support of family or friends
- Counselling / Talk to your doctor

### ✓ **Take charge and Stop Smoking**

- Nicotine replacement therapy - patches, inhaler, gum
- Smoking cessation program - groups
- Set a quit date
- Ask for support from family and friends – talk to people

✓ **Take charge by Losing Weight and Reducing Waist Measurement**



- Eating less fat (all types)
- Having less alcohol
- Eating smaller portions
- Being more physically active

✓ **Take charge by Looking after your Circulation and Blood Vessels**

- Reduce blood pressure
- Reduce blood sugar levels
- Reduce cholesterol
- Stop smoking
- Stop Alcohol
- Lose weight

✓ **\*Planning a Pregnancy**



- If you are planning a pregnancy and you are diabetic, speak to your doctor as early as possible, so you can be supported to have good blood sugar levels during your pregnancy to protect your baby's growth early on in the pregnancy.
- Speak to your doctor to check whether any other medication you are taking could affect the baby's growth and development.

✓ How can I prevent Diabetes Complications?



- The key to preventing many of the complications of diabetes is to keep your blood sugar at a steady, healthy level.
- As a newly diagnosed person with type 2 diabetes, you are learning how to eat right, exercise, monitor your blood sugar as recommended by your doctor, and stick to your medication routine.
- Be vigilant about your general health, and report any unusual signs or symptoms to your doctor. Together with your diabetes-care team you can work to prevent diabetes-related health complications.
- In general, you should plan to do the following:

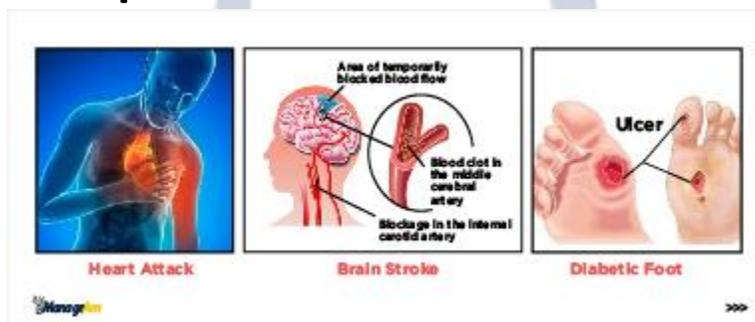
- ***See your doctor every three or four months for your regular blood tests and consultation.***
- ***See your dentist every six months.***
- ***See your ophthalmologist every six months or more often if you have active eye problems.***
- ***See your podiatrist (foot doctor) once a year or more often if you have active foot problems.***
- ***Consult with your dietitian or your Diabetes Educator as often as you can for guidance and advice on life style changes.***

- Can diabetes cause weight loss?
  - Diabetes and sudden weight loss. In people with diabetes, insufficient insulin prevents the body from getting sugar from the blood into the body's cells to use as energy. When this occurs, the body starts burning fat and muscle for energy, causing a reduction in overall body weight
- The decisions we make every day:
  - whether or not to eat a healthy diet, be active (even if we have no time), take medications on schedule, make changes to improve your lab results, and keep a positive attitude so you can continue making healthy decisions — increase or decrease your diabetes health

- How to improve your diabetes:
  - A restrictive diet, limit your portion sizes and each week replace one or two unhealthy foods you eat with healthier food choices.
- Know How to Delay or Prevent Diabetes Complications.
  - Over time, high blood sugar can lead to complications like heart disease, foot ulcers, amputation, nerve damage, and vision loss (blindness).
  - According to the American Diabetes Association (ADA), the best way to reduce your risk of complications is to keep your blood sugar in a healthy range.
  - ***For most people, that means targeting a blood sugar between 80 mg/dL and 130 mg/dL first thing in the morning and before meals and less than 180 mg/dL two hours after a meal (as shown in the table above).***
  - Find an activity that fits you. Whether you want to be a bit more active or start a formal exercise routine, pick something you enjoy or you won't be doing it for long.
  - Keep Track of Your Medicines and Supplies. Organizing test strips, lancets, and pump supplies ensures you always have what you need. Storing everything in the same few drawers or on a special shelf in your closet can help you stay organized and see what you have quickly and easily.
  - While our health care providers help guide us, you must do the everyday tasks of taking care of our diabetes. The good news is, as you become more responsible for your care, your diabetes may improve and it will feel like less of a burden.

**REMEMBER: YOU are the most important member of your medical team.**

## Diabetes complications

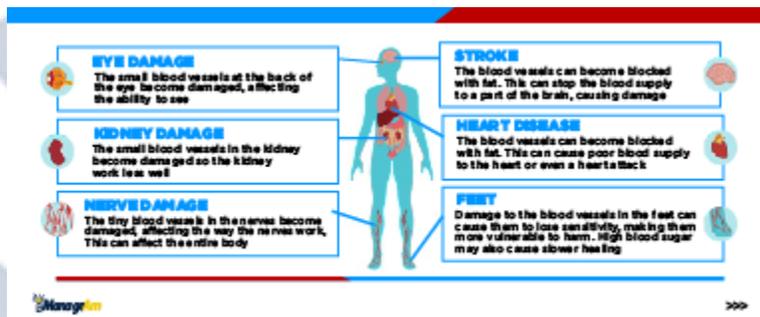


### Emergency Complications of Type 2 Diabetes from Lack of Control

Uncontrolled diabetes can be life-threatening. Help prevent these serious diabetes complications by learning the warning signs. People with type 2 diabetes are at increased risk of many serious health problems, including:

1. Heart attack
2. Stroke
3. Foot Damage
4. Blindness

5. Kidney Disease
6. Severe Hyperglycemia syndromes: (Diabetic ketoacidosis and hyperglycemic-hyperosmolar state)



**REMEMBER: Keeping your diabetes in check — that means maintaining good blood sugar control and knowing how to recognize a problem and what to do about it should one occur, you can prevent many of these serious complications of diabetes.**

### Heart Attack

- Heart disease and stroke are the top causes of death and disability in people with diabetes. Heart attack symptoms may appear suddenly or be subtle, with only mild pain and discomfort. If you experience any of the following heart attack warning signs, please seek assistance immediately and see your doctor.
- Chest discomfort that feels like pressure, squeezing, fullness, or pain in the center of your chest, lasting for a short time or going away and returning.
- Pain elsewhere, including the back, jaw, stomach, or neck; or pain in one or both arms
- Shortness of breath
- Nausea or lightheadedness

### Stroke

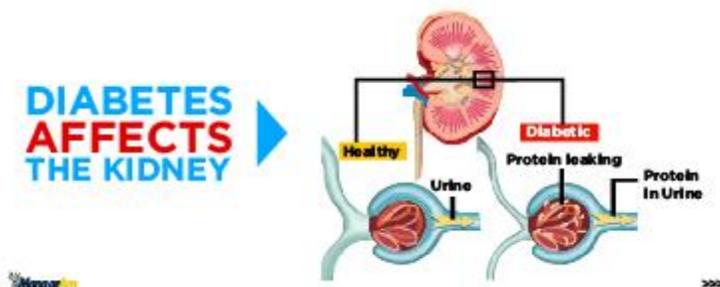
- If you suddenly experience any of the following stroke symptoms, call your doctor or a relative immediately. As with a heart attack, immediate treatment can be the difference between life and death. Stroke warning signs may include:
- Sudden numbness or weakness in the face, arm, or leg, especially if it occurs on one side of the body
- Feeling confused
- Difficulty walking and talking and lacking coordination
- Developing a severe headache for no apparent reason

### Nerve Damage (foot damage):

- People with diabetes are at increased risk of nerve damage, due to uncontrolled high blood sugar.

- Nerve damage associated with type2 diabetes can cause a loss of feeling in your feet which is known as or diabetic neuropathy, which makes you more vulnerable to injury and infection. You may get a blister or cut on your foot that you don't feel and, unless you check your feet regularly, an infection can develop.
- Untreated infections can result in gangrene (death of tissue) and ultimately amputation of the affected limb (leg).
- Diabetes can also make it more difficult for your body to fight infections, causing infections of the skin and mouth, including bacterial and fungal infections. Gum disease and dry mouth also are more likely.
- If you notice any of the following symptoms, see your doctor:
  - Inflammation and tenderness anywhere on your body
  - Red, itchy rash surrounded by small blisters or scales
  - Cuts, sores, or blisters on your feet that are slow to heal and are not as painful as you would expect
  - Numbness, tingling, or burning sensations in your hands or feet, including your fingers and toes
  - Sharp pain that gets worse at night
  - Muscle weakness that makes walking difficult
  - Bladder infections and problems with bladder control
  - Bloating, stomach pain, constipation, nausea, vomiting, or diarrhea
  - Erectile dysfunction in men and vaginal dryness in women

## Kidney Disease



- Type 2 diabetes increases your risk of kidney disease, or diabetic nephropathy, a condition in which the blood vessels in your kidneys are damaged to the point that they cannot filter out waste properly. If left untreated, dialysis (a treatment to filter out waste products from the blood) and ultimately a kidney transplant may be needed.
- Typically, you won't notice symptoms of kidney disease until it has advanced. However, if you experience any of the following symptoms, tell your doctor:
  - Swelling in your ankles and legs
  - Leg cramps
  - A need to go to the bathroom more often at night
  - Nausea and vomiting

- Weakness and paleness
- Itching

**REMEMBER: The best way to prevent type 2 diabetes-related kidney problems is to have your urine, blood, and blood pressure monitored regularly (at least twice a year) and to keep your blood sugar and blood pressure under control.**

### **Eye Problems**

- People with type 2 diabetes are at risk of several eye conditions, including diabetic retinopathy (which affects the blood vessels in the eye), glaucoma, and cataracts. If left untreated, these conditions can cause blindness.
- Call your doctor if you notice any of these warning signs:
  - Blurry vision that lasts for more than two days
  - Sudden blindness in one or both eyes
  - Black or gray spots, cobwebs, or strings that move when you move your eyes
  - A sensation of seeing "flashing lights"
  - Pain or pressure in one or both eyes

### **High Blood Sugar in your Body (Hyperglycemia)**

- Hyperglycemia means you have too much sugar in your blood. High blood sugar doesn't always produce symptoms; therefore, it is important to check your blood sugar regularly, as indicated by your doctor. When symptoms of hyperglycemia occur, they may include:
  - Frequent urination
  - Extreme thirst
  - Feeling tired and weak
  - Blurry vision
  - Feeling hungry even after eating
- If you frequently have high blood sugar, tell your doctor. He or she may need to make changes to your medication and suggest diet and lifestyle modifications to help you gain and maintain better blood sugar control.

**REMEMBER: The key to preventing many of the complications of diabetes is to keep your blood sugar at a healthy level. To do this, eat right, exercise, monitor your blood sugar as recommended by your doctor, and don't smoke.**

### **Pregnancy complications:**

- High blood sugar levels can be dangerous for both the mother and the baby. The risk of miscarriage, stillbirth and birth defects increases when diabetes isn't well-controlled.

**REMEMBER:** The key to preventing many of the complications of diabetes is to keep your blood sugar at a healthy level. To do this, eat right, exercise, monitor your blood sugar as recommended by your doctor, and don't smoke

## Nutrition and Diabetes

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### Nutrition and Diet

- Diet is a crucial part of managing your type2 diabetes. The best way to develop a healthy diet is to develop a healthy-eating plan that is naturally rich in nutrients and low in fat and calories. Key elements must be fruits, vegetables and whole grains.
- In fact, a diabetes diet is the best eating plan for almost everyone. This will prevent healthy individuals from developing diabetes.
- To support you in self managing your diabetes, here are some local foods grouped under three categories of recommendation.

**REMEMBER – it's the Frequency, Amount and Types of foods that you select from these categories that is important to your overall intake and helps to manage your blood sugar.**

### **DESIRED FOODS**

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**VEGETABLES-** Green Leafy Vegetables (Soko, Ugu, Tete, Gbure, Uziza, Utazi, Scent leave, Curry leave, Oha leave, Lettuce, Cabbage, Spinage, Ewedu, Carrots, bitter leave, Garden egg, Mushrooms, Onions, Cucumber, Runner beans etc,

**FRUITS-** Grapefruit, Pawpaw, African Cherry (Agbalumo, Udala), Cashew, Garden Egg (Agba), Nnmimi (pepper fruit), etc

**WATER –** More than 2 litres a day

**BEVERAGES-** Coffee, Tea (tea bags) without sugar

**CONDIMENTS-** Pepper, Curry, Thyme, Iru, Garlic, Ginger

### **FOODS TO BE TAKEN IN MODERATION (LOW AMOUNTS)**

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**TUBERS-** Yam, Cocoyam, Cassava, Garri, Fufu, Lafun, Amala

**CEREALS & GRAINS-** Maize, Rice, Sorghum, Grain products, Wheat bread, Eko/Agidi, Pap, Semovita, Semolina, Millet

**LEGUMES & NUTS-** Groundnuts, Cashew nuts, Walnuts, Coconuts, Melon (Egusi)

**FRUITS-** Orange, Tangerine, Mango, Pineapple, Pear, Banana

**DRINK-** Unsweetened fresh fruit juice

### **FOODS TO AVOID**

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**REFINED SUGAR-** Sugar and sugary foods (Jam, Marmalade, Candies, Chocolates, Ice-Cream, Honey)

**PASTRIES-** Chinchin, Puffpuff, Cakes, Burger, Pies, Doughnut, Sausage rolls, Biscuit, Pizza, Egg roll, Hotdog

**FATTY OR OILY FOODS** - Margarine, Cheese, Butter, Mayonnaise, Salad Cream, Fatty beef, Pork, Offal, Bacon, Sausage

**DRINKS-** Soft drinks, Sweetened fruit juices, Condensed milk, Sweetened cocoa drinks.

### **WHAT ARE “CALORIES”?**

- “Calories” is the most common unit of measuring energy in food and drinks.
- The term “calories” used on a day to day bases in relations to food and drinks, is in fact the same as Kilocalories (Kcal).
- “Calories give our body organs energy to do its functions and for us to do our daily activities.
- There are 9 calories in 1 gram of Fat, 4 calories in 1 gram of Carbohydrates and 4 calories in 1 gram of Protein.

### **HOW MANY CALORIES DO I NEED?**

- Adult men require 2,000 to 3,000 calories per day.
- Adult women require 1,600 to 2,400 calories per day
- This number may be lower or higher, depending on your age, weight and the level of physical activities.
- If you are trying to lose weight, your calorie intake should be lesser than what you burn during your daily activities and physical exercise.

### **WHY SHOULD I CHECK CALORIES IN MY FOOD?**

- If you keep consuming more calories than your body requires, you may put on weight.
- To keep an eye on your weight, checking the calorie content in your food and drinks can help you eat better.
- Most of the packaged foods contain a nutrition label to help you check what you are consuming.
- You may use the ManageAm Meal Guide to calculate the calories in your meals.

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## Making Lifestyle Changes

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### HEALTH PROFILE

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#### What is health Profile?

Knowing your health profile can help you to understand how to make lifestyle changes because it reveals what part of your health needs immediate attention and what part of it requires attention, but not immediate and which part are you currently doing well.

- Your health profile shows how you are doing at present. You can make the most difference to your health by working on ways to improve components of your health profile that needs to move away from danger zone and closer to the safe zone.
- Over time, you may find your health profile changes, and this may influence what action you may wish to take in the future.
- Your health profile is made up of a number of components which are very important in self-managing your type 2 diabetes. They include the following:
  - Blood Pressure (BP) Systolic
  - Blood Pressure (BP) Diastolic
  - Total Cholesterol
  - HDL
  - LDL
  - A1c
  - BMI
- **What is Blood Pressure (BP) Systolic and Diastolic Pressure?**



- When your heart beats and it pumps blood round your body to give it the energy and oxygen it needs.

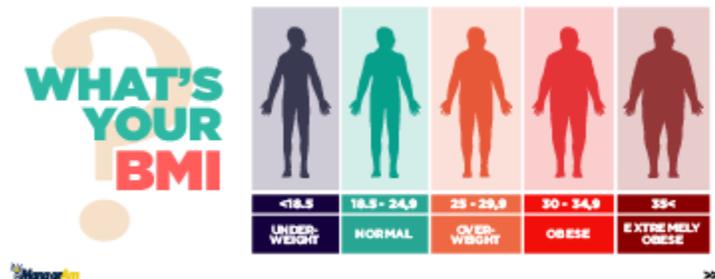
- As the blood moves, it pushes against the sides of the blood vessels. The strength of this pushing is your blood pressure.
  - If your blood pressure is too high, it puts extra strain on your arteries (and your heart) and this may lead to heart attacks and strokes.
  - Blood pressure measurement checks the amount of pressure in your blood vessels. This measurement is done by your doctor or nurse.
  - You will find it helpful to know what your blood pressure numbers are.
  - To reduce your risk of heart attack and strokes, aim for the level 130/80 or less if you have type 2 diabetes.
- What is Total Cholesterol; HDL & LDL (blood fat)?



- Cholesterol is the main type of fat that we worry about in the blood. If you have too much cholesterol in your blood, it can clog up the blood vessels and make them more prone to blocking.
- Diabetes tends to lower "good" cholesterol levels and raise triglyceride and "bad" cholesterol levels, which increases the risk for heart disease and stroke. This common condition is called diabetic dyslipidemia
- There are two types of Cholesterol, the good one called HDL and the bad one called LDL.
- If you have type2 diabetes, you need the good cholesterol (HDL) to increase and bad cholesterol (LDL) to decrease.
- You should aim for the following numbers:
  - Total Cholesterol = **Less than** 3.1 mmol/l
  - HDL (Good) = **More than** 1.5 mmol/l
  - LDL (Bad) = **Less than** 2.0 mmol/l



- The cholesterol test will usually be carried out in a laboratory by a doctor or nurse, using blood from a vein. Sometimes you are asked not to eat and drink before the test.
- **What is A1c Test?**
  - A1c is a blood test that can tell you how you have been doing over the past 2-3 months in relation to your blood sugar levels and in controlling your diabetes. This test is done by your local doctor or nurse using blood from a vein.
  - If you are newly diagnosed, you should aim to have an A1c level of less than 6.5% (48mmol/mol).
  - But if you are on two drugs or more, it should be less than 7.5% (59mmol/mol).
  - Your local health service may use a target A1c different to the one above.
  - You will find it useful to discuss this with your doctor or nurse.
- **Waistline and Diabetes?**
  - In Type 2 diabetes, one of the problems is that the body does not use the insulin it produces well. Research shows that people who put on extra weight around the middle tend to be more likely to have this problem.
  - It is important to try and reduce your weight and waist size if advised by your doctor that you are overweight, this helps to improve how well your body uses its insulin to control sugar level in the blood.
  - As part of self-management, weight loss is very crucial as it is a result of lifestyle changes.
- **What is Body Mass Index BMI?**

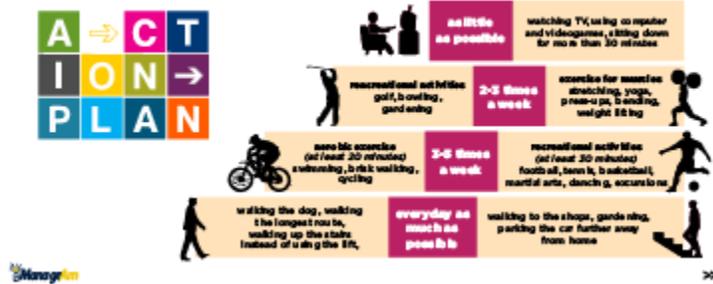


- BMI is the measurement of your body fat based on the calculation of your body weight in relation to their height.
  - As part of self-management, weight loss is a very crucial as it is a result of lifestyle changes.
  - The more you reduce your BMI, the better your chances of preventing diabetes complications.

## Action Plan

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## Looking after diabetes?



- Developing an action plan on how to improve your health profile is an important part of self-managing your diabetes.
- There are three factors that affect blood sugar these are activity, medication and food.
- An action plan helps you to choose carefully which of the three factors to focus on and keep you on track with progress.

## Be More Active

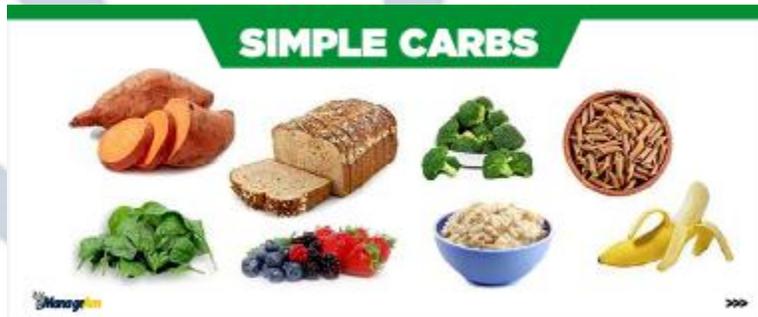
- There are benefits to being more active:
  - It helps you to relieve stress and anxiety, and improves your mood
  - It helps to lower your blood pressure
  - It can improve the levels of cholesterol in your blood
  - It can burn up calories and help you lose weight
  - It helps keep your blood sugar down by reducing insulin resistance in your body
  - It helps keep your heart healthy
- It is important that you try to build up to at least 30 minutes of moderately intense activity, at least 5 days each week.
- Moderately intense means activity that makes you breathe a little harder, your heart beat a little faster and you will feel warm. A pace that makes you breathe harder but still able to talk!
- Any increase on what you do now will be of benefit. You can choose any activity that you enjoy that can be realistically carried out on a regular basis.

## Taking medication

- Having diabetes can sometimes mean that you need to take tablets to achieve good targets for sugar, blood pressure, cholesterol, weight and waist.
- If you are prescribed tablets, ask your doctor or nurse what they are for and when to take them, as different tablets may need to be taken at certain times.

- It is important that you develop a routine for taking them. If you feel unwell after taking these tablets or you don't like taking them, speak to your doctor as there may be alternatives. Don't just stop taking them.

## **Food Choices**



- The choices you make about the kinds of food you eat can reduce your risk of the complications.

## **Carbohydrates and Sugar**

- Carbohydrates are sugars (table sugar) and starches (potato, rice, macaroni, bread, cereals). Both can cause blood sugar levels to rise.
- Food and drinks with sugar as the main ingredient tend to cause blood sugar levels to rise very quickly.
- Eating larger than their usual portion of starchy carbohydrate will increase their blood sugar levels
- By monitoring your urine or blood sugar levels you can begin to work out for yourself how your body copes with carbohydrate foods.
- Remember that carbohydrate consumed in excess will also influence weight gain.

## **Fats**

- Eating lots of sugary and fatty foods can mean that:
  - It is difficult to lose weight
  - Insulin resistance and blood sugar levels become worse
  - The heart and circulation get damaged
  - There are different types of fat in the food we eat.
  - All kinds of fat are equally high in calories, and so can easily affect weight.

## **Fruit and vegetables**

- Eating more fruit and vegetables can help with blood pressure, and helps the heart and circulation.
- If you replace other food choices with more fruit and vegetables then they could help you lose weight and manage your blood sugar level.
- It is recommended that you eat 5 portions of fruit and vegetables each day.

## **Weight Management**

- Small changes in what you eat, or small increases in your activity levels can lead to weight.
- If you have high blood sugar levels, then it is possible that the sugar you have been losing in the urine will have been either keeping your weight from going up or will have caused you to lose a bit of weight.

**REMEMBER: The Frequency, Amount and Types of foods that you eat is very important to your overall diabetes control and management.**

**FOR MORE ADVICE ON HOW TO PREVENT AND MANAGE DIABETES, VISIT THE SELF HEALTHCARE EMPOWERMENT INITIATIVE WEBSITE - SH-EI.ORG OR DOWNLOAD 'MANGEAM' MOBILE APPLICATION ON IOS AND ANDROID**