DIABETES

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INTRODUCTION TO DIABETES

- "Diabetes is a serious condition that causes a person's blood sugar level to become too high." There are two main types of Diabetes, Type 1 and Type 2 (Diabetes, 2021)

TYPE 1 DIABETES

- Type 1 diabetes previously known as juvenile diabetes or insulin-dependent diabetes, is a chronic condition in which the pancreas produces little or no insulin, this happens because your body attacks the cells in your pancreas that make the insulin, meaning you can't produce any at all. (Insulin is a hormone needed to allow sugar (glucose) to enter cells to produce energy)
- Some symptoms of type 1 diabetes incudes; frequent urination increased thirst, increased hunger and many more.
- People who suffer from type 1 diabetes should take insulin as a part of their treatment but not too much

•Type one diabetes is the least common out of the two main types of diabetes making around 10% of all diabetes cases in the United Kingdom. It's a serious and lifelong condition. There are many known complications of long-term high blood sugar levels. These include damage to your heart, eyes, feet and kidneys. Many of these long-term problems are preventable by getting the right treatment and care. Insulin is a hormone needed to allow sugar (glucose) to enter cells to produce energy. Humans need insulin to live. It does an essential job. Allowing the glucose in our blood to enter our cells and fuel our bodies. (Symptoms and Signs of High Blood Sugar (Hyperglycemia): Treatment, 2021)

•When you have type 1 diabetes, your body still breaks down the carbohydrate from food and drink and turns it into glucose. But when glucose enters your bloodstream, there's no insulin to allow it into your body's cells. More and more glucose then builds up in your bloodstream, leading to high blood sugar levels. High glucose levels can cause the kidney to malfunction. This stage is irreversible and will have a serious impact on your health and this will lead to you having the dialysis treatment that may lead to bad quality of life.

•The pancreas is an organ in the abdominal region. The role the pancreas has is to change food that comes into fuel for the body.

The pancreas has two main functions on exocrine and endocrine functions. The exocrine function helps in the digestion and the endocrine regulates the blood sugar. 95% of the pancreas is made up of exocrine tissue that develop pancreatic enzymes for digestion. The rest of the tissues is made up of endocrine cells. These cells are called islet of Langerhans. These groups of cells look like grapes and produce hormones that regulate blood sugar and regulate pancreatic secretions. The exocrine glands make enzymes that are significant to digestion. These enzymes involve lypsin and chymolrpsin to process proteins such as amylase for the breakdown of carbohydrates and lipase to process fats when the food reaches the stomach the pancreases juices are delivered in the system where it reaches the major pancreatic duct. (Pancreas: Anatomy and Functions - Health Encyclopedia - University of Rochester Medical Center, 2021)

There are many symptoms that people will come across if they have type one diabetes .The common symptoms are frequent urination, increased thirst, increased hunger, and weight loss. If anyone is to experience any of these symptoms, they should go to the local GP.

There are also Additional symptoms that people may come across if they were to have type one diabetes. These additional symptoms may include blurry vision, tiredness, and slow wound healing. Symptoms typically develop over a short period of time, often a matter of weeks (Type 1 diabetes - Symptoms and causes, 2021)

People who suffered from type 1 diabetes take insulin as a part of their treatment to keep their blood sugar levels in the right range
Insulin is pumped through the body by an injection . Insulin helps to regulate the blood sugar level, however too much insulin can Cause serious health risks as it can cause obesity, heart disease and cancer

TYPE 2 DIABETES

- Type 2 diabetes is a condition where the insulin your pancreas makes can't work properly, or your pancreas can't make enough insulin. This leads to your blood glucose levels rising.
- Similarly, to type 1, when you have type 2 diabetes, your body still breaks down carbohydrates from your food and drink and turns it into glucose. At this point the pancreas then responds by releasing insulin. But because this insulin can't work properly, your blood sugar levels keep rising, triggering the release of more insulin.
- Common symptoms include increased thirst, frequent urination, Increased hunger and unexplained weight loss
- Treatment for type 2 diabetes includes medicine and a change of diet to control sugar levels

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•When insulin is not working as it should/not working properly it may eventually tire the pancreas out, meaning the body makes less and less insulin. This can lead to even higher blood sugar levels which increases the risk of hyperglycemia. Hyperglycemia is when there is an excess of glucose in the bloodstream, often associated with diabetes mellitus. symptoms that can accompany hyperglycemia are headaches, increased hunger, blurred vision, tiredness, and problems with concentration. When hyperglycemia is present over the long term, such as in poorly-controlled diabetes, it can cause poor wound healing, nerve damage, vision problems, and damage to the blood vessels and kidneys. (Symptoms and Signs of High Blood Sugar (Hyperglycemia): Treatment, 2021)

•Around 90% of people with diabetes in the UK have type 2. It is a serious condition and can be lifelong. There are several factors that can affect your risk of developing type 2 diabetes. With changes to lifestyle and careful monitoring some people can put their Diabetes into remission.

•Common symptoms include increased thirst, frequent urination and unexplained weight loss. Symptoms may also include increased hunger, feeling tired, and sores that do not heal. Often symptoms come

on slowly. Long-term complications from high blood sugar include heart disease, strokes, diabetic retinopathy which can result in blindness, kidney failure, and poor blood flow in the limbs which may lead to amputations.

•Treatment for type two diabetes includes medicines and a change of diet to help control! The blood levels also Metformin is generally the preferred treatment for type two diabetes. It also reduces the risk of cardiovascular disease. This treatment is very effective.

CASE STUDY

- Mrs A was born on the first of October nineteen seventy-six. She is a smoker who smokes one to nine cigarettes per day. Her blood pressure is 140/90. She never had a heart attack and never had a stroke or weakness. She had no family history of heart related problems but her sister suffers from a cholesterol problem. Her weight is 70kg and her height is 170cm. She exercises once a month. Her diet consists of frozen meals 3-4 times a week she also has chips and sugary foods, chocolates, and alcohol intake of 3-6 units a day.

Discussion

- Cholesterol can lead to type two diabetes so because Mrs A has someone in her family with a cholesterol problem she would need to be very careful of the types of foods she consumes. For example should stop having or cut down the amounts of sugary foods, fried foods and lower the amount of alcohol intake she has.
- Furthermore Mrs A should bare in mind that there is many different foods she can have that will be able to lower her cholesterol. Some of these foods include, that eating high fibre foods helps to reduce the cholesterol levels. More foods that will lower cholesterol are green tea, nuts, spinach, garlic and many more.

High cholesterol is when you have too much of a fatty substance called cholesterol in your blood. It's mainly caused by eating fatty food, not exercising enough, being overweight, smoking and drinking alcohol. It can also be in the family. You can lower your cholesterol by eating healthily and getting more exercise. Some people also need to take medicine. too much cholesterol can block your blood vessels. It makes you more likely to have heart problems or a stroke. high cholesterol does not cause symptoms. You can only find out if you have it from a blood test. (Symptoms and Signs of High Blood Sugar (Hyperglycemia): Treatment, 2021)

CONCLUSION

- It is very important to take good care of our body and also to educate ourselves about normal and abnormal functioning . Having self awareness is key to detecting signs and symptoms of diabetes at an early stage , which can result in having less impact and damage to the body.

•Some of the long-term effects of diabetes include damage to large and small blood vessels, which can lead to heart attack and stroke, and problems with the kidneys, eyes, feet and nerves. However, the long-term effects can be reduced through keeping blood pressure, blood glucose and cholesterol levels within recommended range. Moreover, being a healthy weight, eating healthily, reducing alcohol intake, and not smoking will help reduce your risk.

•Living with type one diabetes or type two diabetes can also damage your mental health. Diabetes can lead to stress, anxiety and depression. This can affect your blood glucose levels and how you manage your diabetes in general. Over time, this can affect your health.The impact of diabetes is that it can cause depression. Symptoms of depression includes being sad, not feeling to take part in activities, not getting enough sleep/always feeling tired, not wanting to eat, feeling guilty and the most serious is having suicidal thoughts.

•People with these symptoms should try their hardest to see a medical profession such as a diabetic nurse or a GP referral

•If you are to have diabetes you can go to and take regular visits to these different people. These people include medical professionals, dietician, the dentist, a physiologist, chiropodist, optician, diabetic

clinic, specialist/community and GP practice

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