

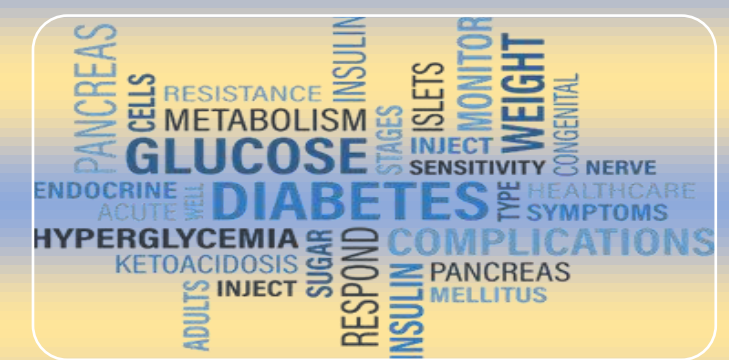
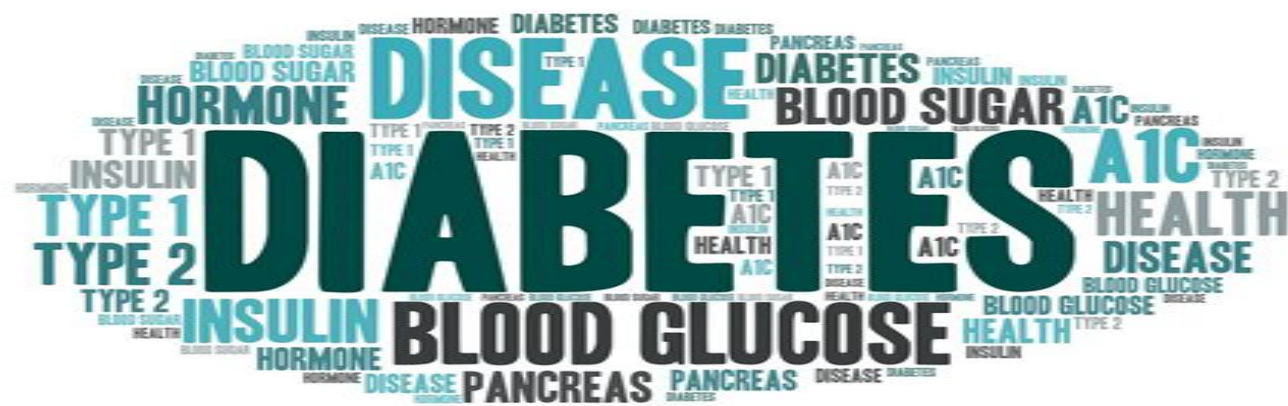
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DEFINITION:

Diabetes is a condition that makes the body's sugar level to become high throughout their lifetime. Two types of this illness exist, type 1 and type 2 (NHS, 2019a)

PHYSIOLOGY

Type 1 diabetes is a disorder of the immune system that results in the immune system attacking the cells (beta) in the pancreas that produce insulin and destroying the ability of the pancreas to produce insulin. The blood glucose volume becomes too high because of the unavailability of the insulin hormone. (Olsen, 2020)

PHYSIOLOGY

Type 2 diabetes is the condition that the insulin from the pancreas cannot function properly or fails to make enough insulin which means the blood glucose quantity continues to rise leading to further complications (Diabetes UK, 2017a) Some of the **symptoms** are urinating frequently, being thirsty, genital itching or thrush, wounds healing slowly, blurred vision, being tired and weight loss. (Diabetes UK, 2013)

CAUSES/RISK FACTORS PATIENT X

- **At 48 years** the patient's risk of getting **type 2** diabetes is higher (Huizen, 2019). **Smoking** risk is higher for women, and it reduces the effect of insulin (Centre for Tobacco Products, 2019)
- **Having a High BP is a risk factor** for type 2 diabetes (Prelipcean, 2019).
- History of **heart attack** in patient's family increases the risk of type 2 diabetes (Mühlenbruch et al., 2020),
- **High cholesterol in patient** family history and **BMI** calculated as **obese puts the patient at risk of getting type 2 diabetes** (NHS, 2018a), and is 80 times more likely to develop type 2 diabetes (Editor, 2019)
- **Eating chips** frequently is a risk (Mandl, 2020).
- Excess **alcohol is a risk factor** (Diabetes UK, 2017b) and can lead to **Pancreatitis which is the inflammation of the pancreas** (Zeratsky, 2017)

INTERVENTIONS

- A balanced diet, regular exercise, weight reduction and stopping smoking (Spritzler, 2017) by using smoking cessation services (NHS, 2018b)
- There are no lifestyle changes to lower the risk of type 1 diabetes (NHS, 2019)

SPEAKER NOTES

DIABETES

Diabetes is a condition that makes the body's sugar level to become high throughout the lifetime of the patient. Two principal types of this illness exist, **type one and type two** (NHS, 2019) We also have **gestational diabetes** which is high blood sugar (glucose) that develops during pregnancy and usually disappears after giving birth (NHS, 2019).

Type 1 Diabetes

Type one diabetes is typically diagnosed in young adults and also children generally. This occurs when the immune system of the body destroys pancreatic beta cells, the cell responsible of making insulin, which regulates blood glucose. In **type 1** diabetes after glucose goes into the bloodstream, usually the pancreas will manufacture insulin to help the glucose get into the cells, but insulin is not available to use in this case, consequently the glucose cannot enter the cells of the body which then raises the volume of sugar in the blood. The body attempts to reduce the volume of glucose in the bloodstream using the kidneys which makes people not diagnosed urinate frequently and causing them to lose water and be thirsty. The urine contains glucose which then creates a lot of bacteria that can give rise to thrush or itching of the genitals. Excess glucose in the blood creates a climate of bacteria that may breed in wounds in the flesh which can be slow to heal. The glucose that gathers in the lens of the eyes can cause blurred vision by making the liquid in the eyes cloudy. The condition causes people to be tired and lethargic. The body then starts breaking down the fat stores in the body because it needs energy, this then leads to weight loss. The symptoms of this condition are **urination, thrush or genital itching, thirst, tiredness, blurred vision, and losing weight.**

TYPE 2 DIABETES

In type 2 diabetes, the insulin from the pancreas cannot function properly or fails to make enough insulin which means the blood glucose quantity continues to rise leading to further complications (Diabetes UK, 2017). **Type 2** diabetes patients are approximately 90% of the society, it is frequent in people over 40 years. It is more complex because the body is not producing sufficient insulin, or the one produced is dysfunctional. Both overweight and people with a healthy weight can be affected. The glucose and insulin produced in the pancreas goes into the bloodstream on its way to the cells that need it, but the glucose cannot get inside the cells because the entrance of the cell has become covered with fat deposits thereby making the quantity of glucose in the blood to go up. The pancreas also produces more insulin making the levels of insulin and glucose in the bloodstream to rise. The cells then send urgent messages to the liver to release glucose that is stored. The pancreas can deteriorate from the over production of insulin. The body then tries to get rid of the surplus glucose and similar symptoms like in type I diabetes emerge. **urination, thrush or genital itching, thirst, tiredness, blurred vision, and weight loss.**

CAUSES AND RISK FACTORS IDENTIFIED IN THE CASE STUDY

Based on the responses supplied by the patient, it can be deduced that the **age of the patient** will represent a risk factor because the patient is 48 years old. Specifically, the risk of contracting type two diabetes is higher for the patient and **90%** of those diagnosed with the condition are 45 years or older (Huizen, 2019). The patient **smokes** between

10-19 cigarettes per day this places the patient in the **risk** bracket because smokers are prone to developing **type 2** diabetes in comparison with non-smokers this is because smokers have a higher percentage of nicotine in their system which can result in a **reduction of the effects of insulin** thus making smokers need more insulin to control their blood glucose level (Centre for Tobacco Products, 2019). The patient's **high BP** (180/90) represents a risk element for type 2 diabetes, because this can harm the arteries and make them to become targets for hardening and narrowing, this is known as **atherosclerosis**. This can lead to triggering of high blood pressure, which if mismanaged can lead to further complications like harm to the blood vessels, heart attack and failure of the kidneys (Prelipcean, 2019). A **Family history of heart attack** may increase the patient's risk of having type 2 diabetes due to genetic factors (Mühlenbruch et al., 2020).

The patient's **sister who suffers from a high cholesterol** condition might increase her hereditary risk for type 2 diabetes, for example cholesterol that is inherited and starts at a young age, called familial hypercholesterolaemia (NHS Choices, 2019). The patient's **BMI** calculation suggests that the patient is **obese** and is at risk of getting type 2 diabetes and hypertension (NHS, 2018) consuming **unhealthy and harmful foods** like fried potatoes increases the risk **of the patient contracting type 2 diabetes and further complications**, like obesity and heart disease (Mandl, 2020). The excessive consumption of **alcohol (3 to 6 units a day)** is connected with an **elevated risk** of getting type 2 diabetes (Diabetes UK, 2017). Immoderate consumption of alcohol can trigger a serious inflammation of the pancreas known as **pancreatitis**, which can **harm its capacity to secrete insulin** and could lead to diabetes. (Zeratsky, 2017).

INTERVENTIONS

To reduce the patient's level of risk in relation to diabetes type two, the patient could adopt changes such as eating a balanced diet which consists of eating different types of food which provides sufficient nutrients that is required by the body for healthy living, engaging in regular physical activity or exercise, weight reduction plans through eating adequate portions of food, stopping smoking (Spritzler, 2017) by making use of **smoking cessation services** (NHS, 2018b). According to the NHS, there are no lifestyle changes to bring down the risk of type 1 diabetes (NHS, 2019).

In conclusion diabetes is a health condition that if healthy choices are made could lead to a reduction in the probability of getting it, specifically type two diabetes, advancements in conventional medicine could cause a shift in the widely held position of medicine that states that no lifestyle changes could lower the risk of type 1 diabetes.

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