

BSc (Hons) Health and Social Care Level 5

Module: Introduction to Physiology {BMHP5003}

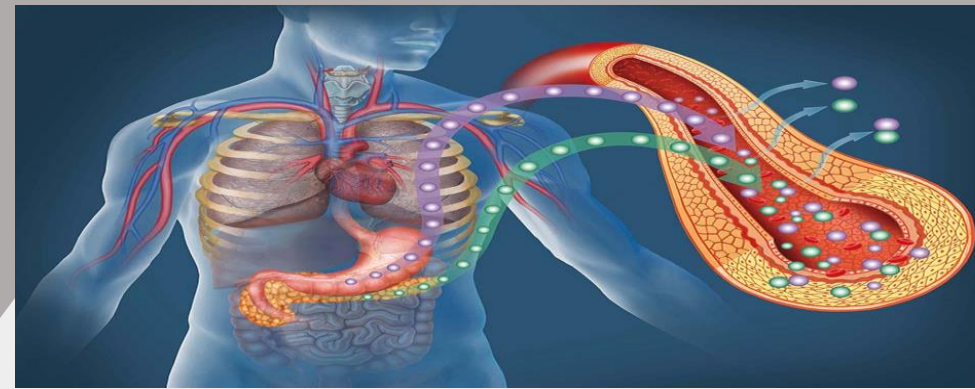
Poster Presentation: Diabetes

Student Name: **Jainaba Jum**

Student number: 1917571

**Lecturer: Eleni Koutsogeorgou**

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Available at: [https://www.who.int/health-topics/diabetes#tab=tab\\_1](https://www.who.int/health-topics/diabetes#tab=tab_1) [Accessed 28 JULY 2021].

MAYOCLINIC, 2021. [www.mayoclinic.org](http://www.mayoclinic.org). [Online]

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**Case study:** According to the case study, patient A's father had a heart attack at the age of 68, and the patient herself suffers from high blood pressure of 180/90, lacks time for regular exercise, and absorbs a lot of junk food fried chips. She is also a smoker and consumes 3-6 pints of beer per day. As a result, all of these risk factors may raise the likelihood of developing diabetes and other health problems. She has a family history of heart disease and high cholesterol and a significant risk of becoming diabetic. (NIDDK.NIH 2021) **Interventions:** Eating more vegetables and engaging in regular physical activity may help her reduce her chance of developing diabetes. Consume lots of fruits, veggies, and whole grains. Non-fat dairy and lean meats are the best choices. Sugary and fatty meals should be avoided. Devoting to regular exercise in order to improve blood sugar management and lower the risk of cardiovascular disease (NIDDK.NIH 2021)

## SPEAKER NOTES

### Definition

Diabetes is a metabolic illness that causes long-term damage to the heart, blood vessels, eyes, kidneys, and nerves. Type 2 diabetes develops when the body becomes resistant to insulin or does not produce enough insulin. Type 2 diabetes has grown significantly in the last three decades in nations of all economic levels. Diabetic type 1 is a chronic disease in which the pancreas generates little or no insulin independently. Diabetes patients need inexpensive treatment, including insulin, to survive. Globally, the goal is to stop the growth of diabetes and obesity by 2025. (WHO, 2021)

### Physiology

An extremely high level of blood glucose can lead to a disease known as diabetes. Therefore, controlling one's blood glucose levels is most accessible if we can maintain the types of food, we intake. A regulated food intake will create a control energy displacement in our cells if this can be achieved. All of this can only be achieved, providing that we can also regulate the amount of insulin produced and transmitted via the body's pancreas

When there are instances of glucose building up in one bloodstream, complications are created in associated health problems. A primary disease exhibited in these circumstances is diabetes. They are two fundamental forms of diabetes, and they are as follows: Diabetes type 1, type 2 and gestational diabetes. (NHS, 2021)

### Symptoms

Types of Diabetes may cause problems in many organs and raise the chance of death. Kidney failure, limb amputation, eyesight loss, and nerve damage are all possible. Adults with diabetes are twice as likely to have a heart attack or stroke. Diabetes in pregnancy raises the chance of foetal mortality and other problems. (NHS, 2021)

### Risk factor

Diabetes Type one is perceived to be a result of an immune reaction. This is said to be a result of the body attacking itself. However, these factors are not as clear cut as those, let's say, in pre-diabetes and type two forms. Factors to consider are as follows: Patient familial history: Does the patient have a sibling, parent, grandparent, or other family suffering from ( or have suffered from) type 1 diabetes?

Age: This form of diabetes can be detected at any age but can be discovered at a young age (child or teen). (MAYO CLINIC, 2021)

### Case study

According to the case study, patient A's father died of a heart attack when he was 68 years old, and the patient herself has high blood pressure (180/90), doesn't get enough exercise and eats a lot of junk food mainly fried chips. She also smokes and drinks 3-6 pints of beer each day, depending on her mood. Therefore, all of these risk factors may increase the chance of getting diabetes and other health issues. She comes from a family with a history of heart disease and high cholesterol, and she is at increased risk of developing diabetes. (NIDDK.NIH 2021)

### Interventions

To ensure that diabetes can be treated efficiently, a patient-specific plan must be created. Therefore, suggesting that this will take the form of an individual approach to each person's diabetic needs. Eating more vegetables and engaging in regular physical activity may help her reduce her chance of developing diabetes. And as such, patients need to be re-assessed periodically to delimit multi-morbidity and ensure that this assessment form can improve the overall treatment per patient. Another form of treatment should take structured education with patients and family members ( or carers). This should be undertaken the moment patients are diagnosed and continue periodically. Hence ensuring that patients and respective carers ( or family members) are aware of the key role they play in monitoring and maintaining a quality of life is possible ( especially if complications are developed over time). (NHS,2021)

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