

Module Name

Introduction to Physiology

Module Guide

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Module Code

BMHP5002

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Definition of diabetes

Diabetes is a disease that directly affects the pancreas and inhibits the body's efficiency in the production of the hormone insulin. This further affects the body's ability to metabolize carbohydrates. As stated by Wood *et al.* (2020) due to these effects, the body glucose level elevates in the blood and urine stream. Diabetes is of two types type 1 which is also known as juvenile diabetes and type two diabetes is known as Mellitus.



Diabetes & Lifestyle



A brief analysis of case study, Causes, and risk of diabetes

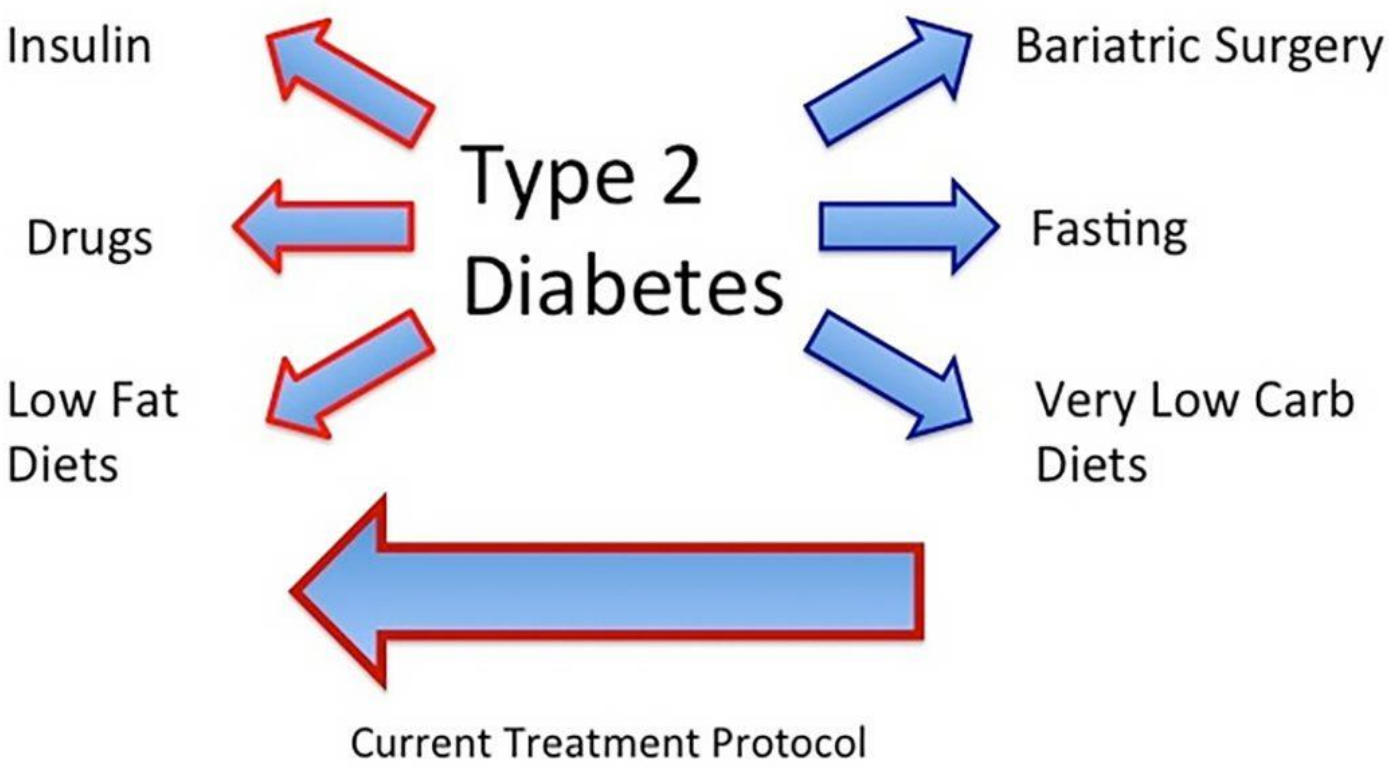
On the case study there are certain habits that have been affecting or worsening the condition of the patient. There is a questionnaire based on the lifestyle of a patient to understand the health condition. Regarding the questionnaire, it can be said that the patient has a habit of smoking around 20-39 cigarettes a day. The patient also has a condition of high blood pressure although the patient has never had any heart attack or stroke. The genetics study of the patient indicates that there is a history of stroke in the family. The patient's father suffered from a stroke because of high cholesterol.

Information related to the physiology of diabetes

The imbalance between the demand and production of insulin hormone in the human body is characterized as Diabetes. The usual symptom of diabetes is frequent urination, increased thirst, and hunger. The glucose metabolism efficiency of the body is inhibited, as a result body is not able to produce enough insulin to break down glucose and distribute it to different cells of the body(Finanetal.2020).

No Cure

Cure



Al-Hamaq, A., 2020. Effect of intensive lifestyle intervention on bodyweight and glycaemia in early type 2 diabetes (DIADEM-I): an open-label, parallel-group, randomised controlled trial. *The Lancet Diabetes & Endocrinology*, 8(6), pp.477-489. Available at <http://unmfm.pbworks.com/w/file/fetch/140470128/Effect%20of%20Intensive%20Lifestyle%20Intervention.pdf> [Accessed on 15th July 2021]

- Wood, A.R., Jonsson, A., Jackson, A.U., Wang, N., Van Leewen, N., Palmer, N.D., Kobes, S., Deelen, J., Boquete-Vilarino, L., Paananen, J. and Stančáková, A., 2017. A genome-wide association study of IVGTT-based measures of first-phase insulin secretion refines the underlying physiology of type 2 diabetes variants. *Diabetes*, 66(8), pp.2296-2309. Available at <https://diabetes.diabetesjournals.org/content/diabetes/66/8/2296.full.pdf> [Accessed on 14th July 2021]
- Finan, B., Capozzi, M.E. and Campbell, J.E., 2020. Repositioning glucagon action in the physiology and pharmacology of diabetes. *Diabetes*, 69(4), pp.532-541. Available at <https://diabetes.diabetesjournals.org/content/diabetes/69/4/532.full.pdf> [Accessed on 13th July 2021]
- Angiolillo, D.J., Baber, U., Sartori, S., Briguori, C., Dangas, G., Cohen, D.J., Mehta, S.R., Gibson, C.M., Chandiramani, R., Huber, K. and Kornowski, R., 2020. Ticagrelor with or without aspirin in high-risk patients with diabetes mellitus undergoing percutaneous coronary intervention. *Journal of the American College of Cardiology*, 75(19), pp.2403-2413. Available at <https://www.sciencedirect.com/science/article/pii/S0735109720345307>

Speaker notes:

Intervention for diabetes patients

Interventions are generally meant to improve the outcomes of the patient. Interventions for diabetic patients could include regular exercise, and self-monitoring of health. These factors along with a balanced diet meal with higher protein and lower simple carbohydrates could help to reduce the negative effects of diabetes. For interventions, diabetic patients must be careful while eating certain products that could raise the blood sugar level among patients. Regular monitoring of the blood sugar level should be checked and this could help in further regulations of improper lifestyle (Gong *et al.* 2019). Changes in lifestyle and eating habits could help to reduce the negative effects of diabetes. The disease used to be a disease for older people but in recent years, it has been noticed that even young adults in their 20's are also vulnerable to diabetes. This is mainly because of the sedentary lifestyle and less physical activity. For proper intervention and management of diabetes, a proper diet plan should be maintained with foods that have a low glycemic index. These kinds of food do not digest at a faster rate instead these foods digest at a slower pace and do not increase the blood pressure level among diabetic patients (Schwingshackl *et al.* 2017). Studies have also found that high cholesterol intake could often lead to diabetes in peoples and this could worsen with numerous other diseases such as coronary diseases.

My racomandations for diabetes

You can start by doing regular exercise, and self-monitoring of health. I can book you in an appointment with a nutritionist which can give you a proper diet which include fruits ,green vegetables(carrots, beans ,lentils)
Also you can start my drinking less alcohol .
If you are not ready for all this changes we also have a privet online consultant which can help you to start healthy life style.