

Speaker notes for Presentation Slides – The Impact and contribution of diabetes on normal and abnormal physiology.

SLIDE ONE TITLE SLIDE

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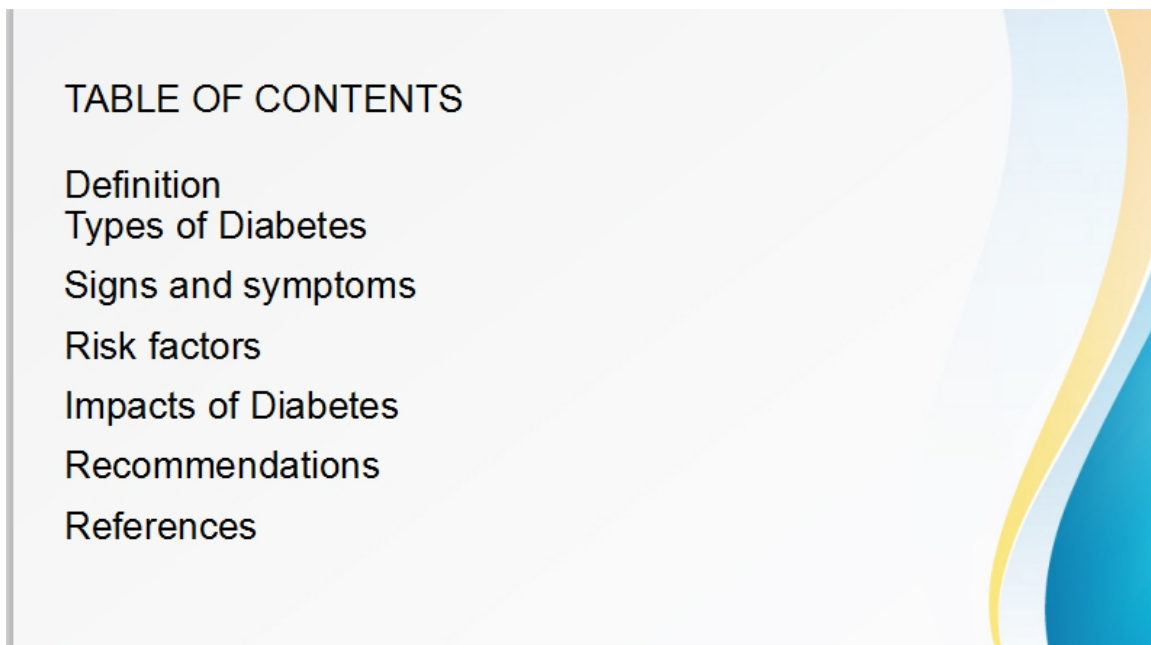


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Slide Three-Definition of Diabetes

DEFINITION:

- ☐ What is Diabetes?
- ☐ History of Diabetes



Speaker Notes On Slide Three

DEFITION

What is Diabetes:

According to Adam brown, Most of the food you eat is broken down into sugar (also called glucose) and released into your bloodstream. When your blood sugar goes up, it signals your pancreas to release insulin. Insulin acts like a key to let the blood sugar into your body's cells for use as energy. If your body doesn't make enough insulin or can't use the insulin it makes or cells stop responding to insulin, too much blood sugar stays in your bloodstream leading to a long lasting health condition called diabetes (Adam Brown 2017)

History of Diabetes

The term diabetes is the shortened version of the full name diabetes mellitus. Diabetes mellitus is derived from the Greek word diabetes meaning siphon - to pass through and the Latin word mellitus meaning honeyed or sweet. This is because in diabetes excess sugar is found in blood as well as the urine. It was known in the 17th century as the "pissing evil". The term diabetes was probably coined by Apollonius of Memphis around 250 BC. Diabetes is first recorded in English, in the form diabete, in a medical text written around 1425. It was in 1675 that Thomas Willis added the word "mellitus" to the word diabetes. This was because of the sweet taste of the urine. This sweet taste had been noticed in urine by the ancient Greeks, Chinese, Egyptians, Indians, and Persians as is evident from their literature. (The philatelic History of Diabetes-Lee J. Sanders

SLIDE FOUR _____ TYPES OF DIABETES

TYPES OF DIABETES

☐ Definition of type 1 Diabetes

☐ Definition of type 2 Diabetes



Speaker Notes On Slide Four

Type 1 diabetes is most likely to occur from an immune system reaction. This reaction causes the body to attack its own insulin-producing beta cells in the pancreas. It usually appears first in children and young adults, but it can emerge at any age. Insulin enables

glucose from food to enter the body's cells to produce energy. If glucose cannot enter these cells, too much sugar will accumulate in the blood, a symptom known as hyperglycemia. Eventually, it will cause damage throughout the body. In addition, the person's cells will not have enough glucose to function properly, which can lead to fatigue and other issues. Lifestyle choices may help prevent type 2 diabetes, but they cannot prevent type 1. There is also currently no cure, but there are ways to manage the disease.

In addition there may also be visual changes, changes in the state of consciousness and coma, hypertension.

Treatment of this type of diabetes consists of:

- exercise (increases sensitivity to insulin)

- Diet

- Insulin

Type 2 diabetes is an impairment in the way the body regulates and uses sugar (glucose) as a fuel. This long-term (chronic) condition results in too much sugar circulating in the bloodstream. Eventually, high blood sugar levels can lead to disorders of the circulatory, nervous and immune systems. In type 2 diabetes, there are primarily two interrelated problems at work. Your pancreas does not produce enough insulin — a hormone that regulates the movement of sugar into your cells — and cells respond poorly to insulin and take in less sugar. Type 2 diabetes used to be known as adult-onset diabetes, but both type 1 and type 2 diabetes can begin during childhood and adulthood. Type 2 is more common in older adults, but the increase in the number of children with obesity has led to more cases of type 2 diabetes in younger people. There's no cure for type 2 diabetes, but losing weight, eating well and exercising can help you manage the disease. If diet and exercise aren't enough to manage your blood sugar, you may also need diabetes medications or insulin therapy (looker HC)

SLIDE FIVE _____ SIGNS AND SYMPTOMS

SIGNS AND SYMPTOMS



Speaker Notes on Slide Five – Slide five above contains signs and symptoms

Signs and symptoms varies from person to person however there is frequent infections on the skin, delayed healing of wounds, bruises and cuts, tingling or numb sensation in feet and hands also a sensation of pins and needles in the legs. Both types of diabetes have some of the same telltale warning signs usually individuals may experience the following early signs, as body converts the food you eat into glucose that your cells use for energy. But your cells need insulin to take in glucose. If your body doesn't make enough or any insulin, or if your cells resist the insulin your body makes, the glucose can't get into them and you have no energy. This can make you hungrier and more tired than usual. Peeing more often and being thirstier. The average person usually has to pee between four and seven times in 24 hours, but people with diabetes may go a lot more. Why? Normally, your body reabsorbs glucose as it passes through your kidneys. But when diabetes pushes your blood sugar up, your kidneys may not be able to bring it all back in. This causes the body to make more urine, and that takes fluids. The result: You'll have to go more often. You might pee out more, too. Because you're peeing so much, you can get very thirsty. When you drink more, you'll also pee more. Dry mouth and itchy skin. Because your body is using fluids to make pee, there's less moisture for other things. You could get dehydrated, and your mouth may feel dry. Dry skin can make you itchy. Blurred vision Changing fluid levels in your body could make the lenses in your eyes swell up. They change shape and can't focus (**Your first year with Diabetes by William Lee Dubois**)

SLIDE SIX _____ RISK FACTORS

TABLE SHOWING POSSIBLE RISK FACTORS ON DIABETES

TYPE OF DIABETES	1	2
RISK FACTOR	Family history	Weight
	Environmental factors	Inactivity
	autoantibodies	Age
	Geography	Gestational diabetes
		Polycystic ovary syndrome
		High blood pressure
		Low levels of HDL

(source:Diabetes Rising by Dan Hurley)



Speaker Notes on Slide Six – Slide Six above contains different risk factors

Gestational diabetes usually goes away after your baby is born but increases your risk for type 2 diabetes later in life. Your baby is more likely to have obesity as a child or teen, and is more likely to develop type 2 diabetes later in life too. Before you get pregnant, you may be able to prevent gestational diabetes by losing weight if you're overweight, eating healthier, and getting regular physical activity. (CDC/Diabetes basics)

Slide Seven _____ Possible complications

POSSIBLE COMPLICATIONS OF DIABETE ON PATIENTS

☐ **Cardiovascular disease**

☐ **Kidney damage**

☐ **Nerve damage**

☐ **Gum disease**

☐ **depression**



Speaker Notes on Slide Seven – Slide Seven above contains complications

Possible complications on patients

Cardiovascular disease including but not limited to coronary artery disease with chest pain, heart attack, stroke and narrowing of arteries Nerve damage which causes tingling, numbness, burning or pain that usually begins at the tips of the toes or fingers and gradually spreads upward.

Kidney damage Diabetes can damage delicate filtering system. Severe damage can lead to kidney failure or irreversible end-stage kidney disease, which may require dialysis or a kidney transplant.,Eye damage .Foot damage.,Skin conditions,Hearing impairment,Alzheimer's disease.Depression,Excess growth in babies of victims,Low blood sugar in babies Pre-eclampsia (high blood pressure, excess protein in the urine, and swelling in the legs and feet)Death in babies shortly after birth.

Nerve damage is the most common diabetes complications, nerve damage can cause numbness and pain. Nerve damage most often affects the feet and legs but can also affect your digestion, blood vessels, and heart.Amputations: Diabetes-related damage to blood vessels and nerves, especially in the feet, can lead to serious, hard-to-treat infections. Amputation can be necessary to stop the spread of infection.

Gum disease can lead to tooth loss and increased blood sugar, making diabetes harder to manage. Gum disease can also increase the risk of type 2 diabetes.

Diabetes increases the risk of **depression** and that risk grows as more diabetes-related health problems develop.,

Gestational diagnosed during pregnancy, can cause serious complications for mothers or their babies, such as pre-eclampsia (high blood pressure caused by pregnancy), injury from giving birth, and birth defects. Complications usually develop over a long time without any symptoms. That's why it's so important to make and keep doctor and dentist appointments even if you feel fine. Early treatment can help prevent or delay diabetes-related health conditions and improve your overall health. **(CDC-Published oct 2019)**

SLIDE Seven _____ **RECOMENDATIONS**

RECOMMENDATIONS

- ☐ Healthy eating
- ☐ Learn what portion size is appropriate for each food type
- ☐ Learn about carbohydrate counting and portion sizes
- ☐ Coordinate your meals and medications
- ☐ some carbohydrates
- ☐ Avoid sugar



Speaker Notes on Slide Six – Slide Six above contains recommendations

Healthy eating is a cornerstone of healthy living — with or without diabetes. But if you have diabetes, you need to know how foods affect your blood sugar levels. It's not only the type of food you eat, but also how much you eat and the combinations of food types you eat.(Clare O'Donnell,Third Edition,2018)

Sometimes medication is an option as well. Oral diabetes drugs such as metformin (Glumetza, Fortamet, others) may reduce the risk of type 2 diabetes — but healthy lifestyle choices remain essential.

Learn about carbohydrate counting and portion sizes. A key to many diabetes management plans is learning how to count carbohydrates. Carbohydrates often have the biggest impact on your blood sugar levels. For people taking mealtime insulin, it's important to know the amount of carbohydrates in your food, so you get the proper insulin dose.

Learn what portion size is appropriate for each food type. Simplify your meal planning by writing down portions for foods you eat often. Use measuring cups or a scale to ensure proper portion size and an accurate carbohydrate count.Make every meal well balanced. As much as possible, plan for every meal to have a good mix of starches, fruits and vegetables, proteins, and fats. Pay attention to the types of carbohydrates you choose.

Some carbohydrates, such as fruits, vegetables and whole grains, are better for you than others. These foods are low in carbohydrates and have fiber that helps keep your blood sugar levels more stable. Talk to your doctor, nurse or dietitian about the best food choices and the appropriate balance of food types.

Coordinate your meals and medications. Too little food in proportion to your diabetes medications — especially insulin — may result in dangerously low blood sugar . Too much food may cause your blood sugar level to climb too high (hyperglycemia). Talk to your diabetes health care team about how to best coordinate meal and medication schedules.

Avoid sugar-sweetened beverages. Sugar-sweetened beverages tend to be high in calories and offer little nutrition. And because they cause blood sugar to rise quickly, it's best to avoid these types of drinks if you have diabetes.

The exception is if you are experiencing a low blood sugar level. Sugar-sweetened beverages, such as soda, juice and sports drinks can be used as an effective treatment for quickly raising blood sugar that is too low.

Exercise

Physical activity is another important part of your diabetes management plan. When you exercise, your muscles use sugar (glucose) for energy. Regular physical activity also helps your body use insulin more efficiently.

These factors work together to lower your blood sugar level. The more strenuous your workout, the longer the effect lasts. But even light activities — such as housework, gardening or being on your feet for extended periods — can improve your blood sugar

Slide Nine _____ **Reference**

REFERENCES



Speaker Notes on Slide Seven – Slide Seven above contains references.

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