

Hi there again. So, it's now time to review the entire topic of Diabetic and Endocrine Emergencies. There were several core concepts in this topic. We began with Pathophysiology. Here we reviewed some of the body's systems and how glucose and insulin work together.

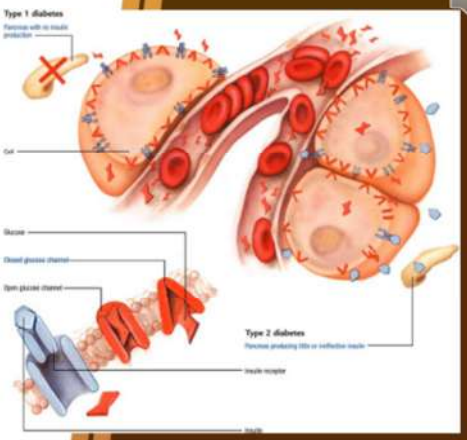
The second lesson covered Diabetic Emergencies including hyperglycemia and hypoglycemia.

Assessment of Diabetic conditions was the third lesson where we discussed blood glucose testing and monitoring. And the fourth lesson covered Diabetes Patient Care. We will now review each of these lessons.

Once you have completed the chapter review, there will be a 15-question quiz at the end. You will need to answer 75% of the questions accurately to get credit for this topic. Please don't hesitate to go back and watch again any of the lessons.

Diabetes | Pathophysiology

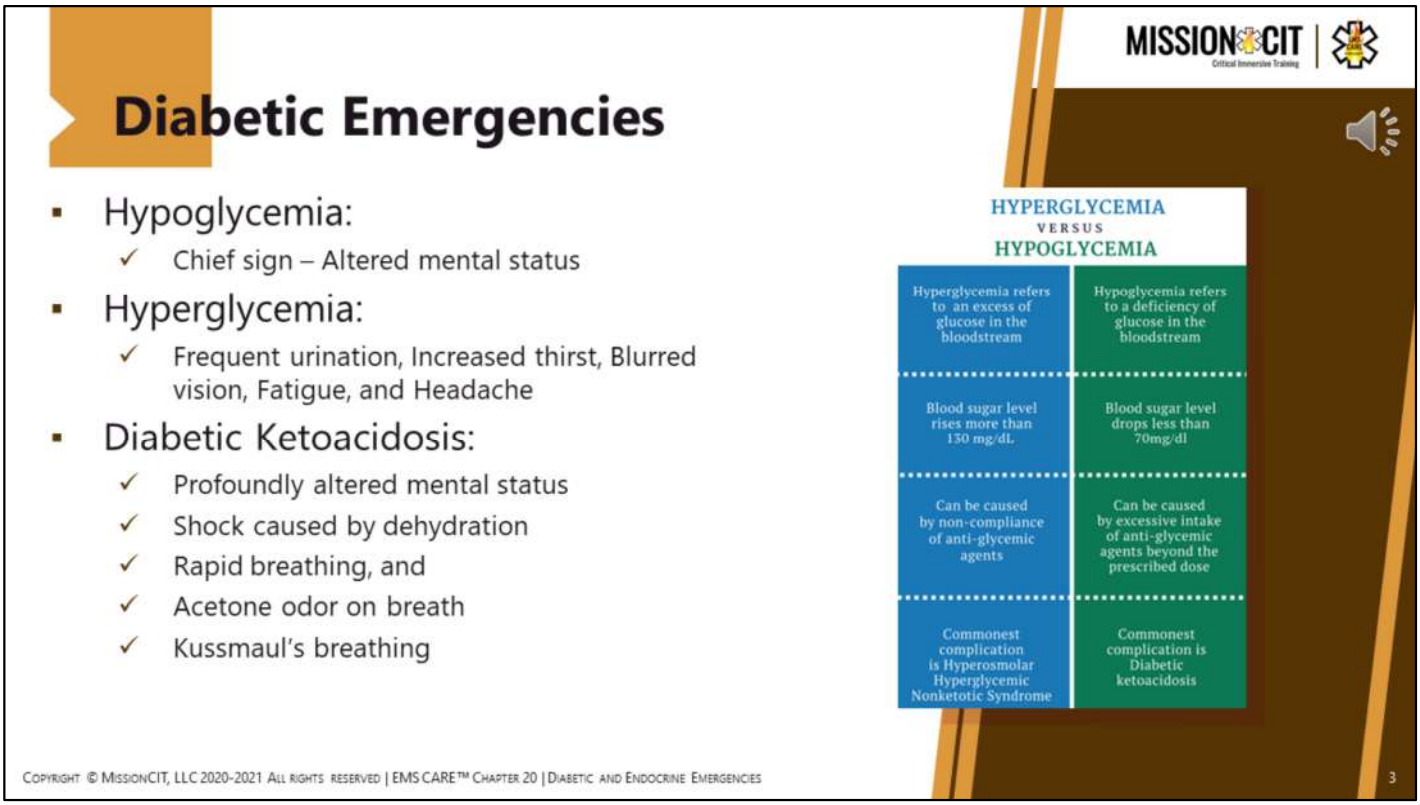
- Glucose - Form of sugar
- Glucose molecule is large
- Will not pass into cell without insulin
- Insulin produced by pancreas
- Sugar intake – Insulin production balance allows body to use glucose effectively as energy source
- Type 1 diabetes
- Type 2 diabetes



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Diabetes is a chronic health condition that affects how your body turns food into energy. Glucose is a form of sugar and is the body's basic source of energy. Insulin binds to its receptors on the cell membrane, triggering glucose transporters to open on the membrane. This allows glucose to enter the cell, where it can be used in several ways. Since the glucose molecule is large, it will not pass into a cell without insulin. Insulin is a hormone made by one of the body's organs called the pancreas. The Sugar intake–insulin production balance allows the body to use glucose effectively as an energy source. Health problems occur when this balance becomes too high – hyperglycemia – or too low – hypoglycemia.

There are two types of diabetes. Type 1 diabetes, once known as juvenile diabetes or insulin-dependent diabetes, is a chronic condition in which the pancreas produces little or no insulin. Type 2 diabetes occurs when the body's cells fail to utilize insulin properly.

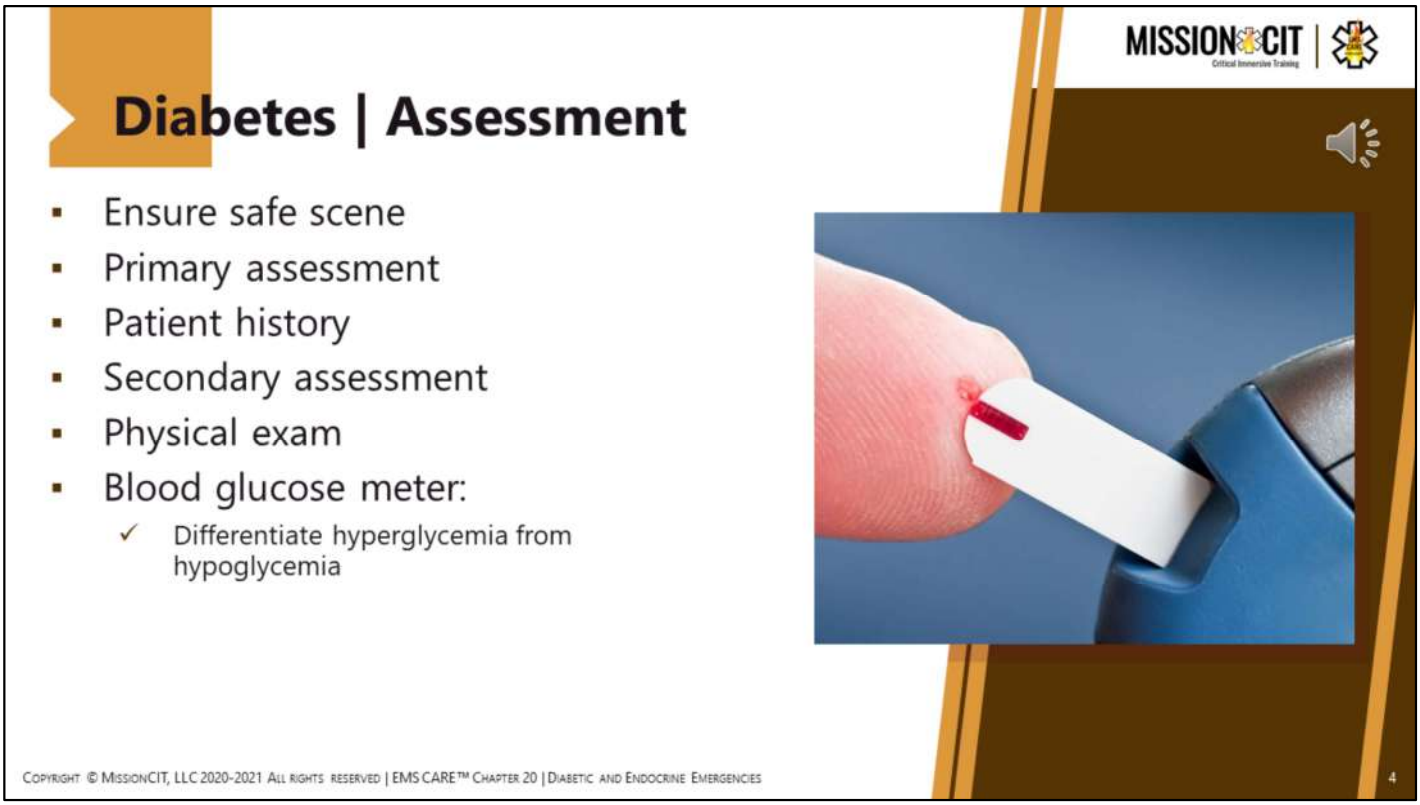


Diabetic emergencies are usually caused by poor management of the patient's diabetes. Diabetic emergencies are often brought about by hypoglycemia, or low blood sugar. The chief sign of hypoglycemia is altered mental status.

Symptoms of low blood sugar, usually have a very rapid onset. Symptoms may initially display as an abnormal behavior mimicking a drunken stupor. The patient may in addition, exhibit other symptoms too.

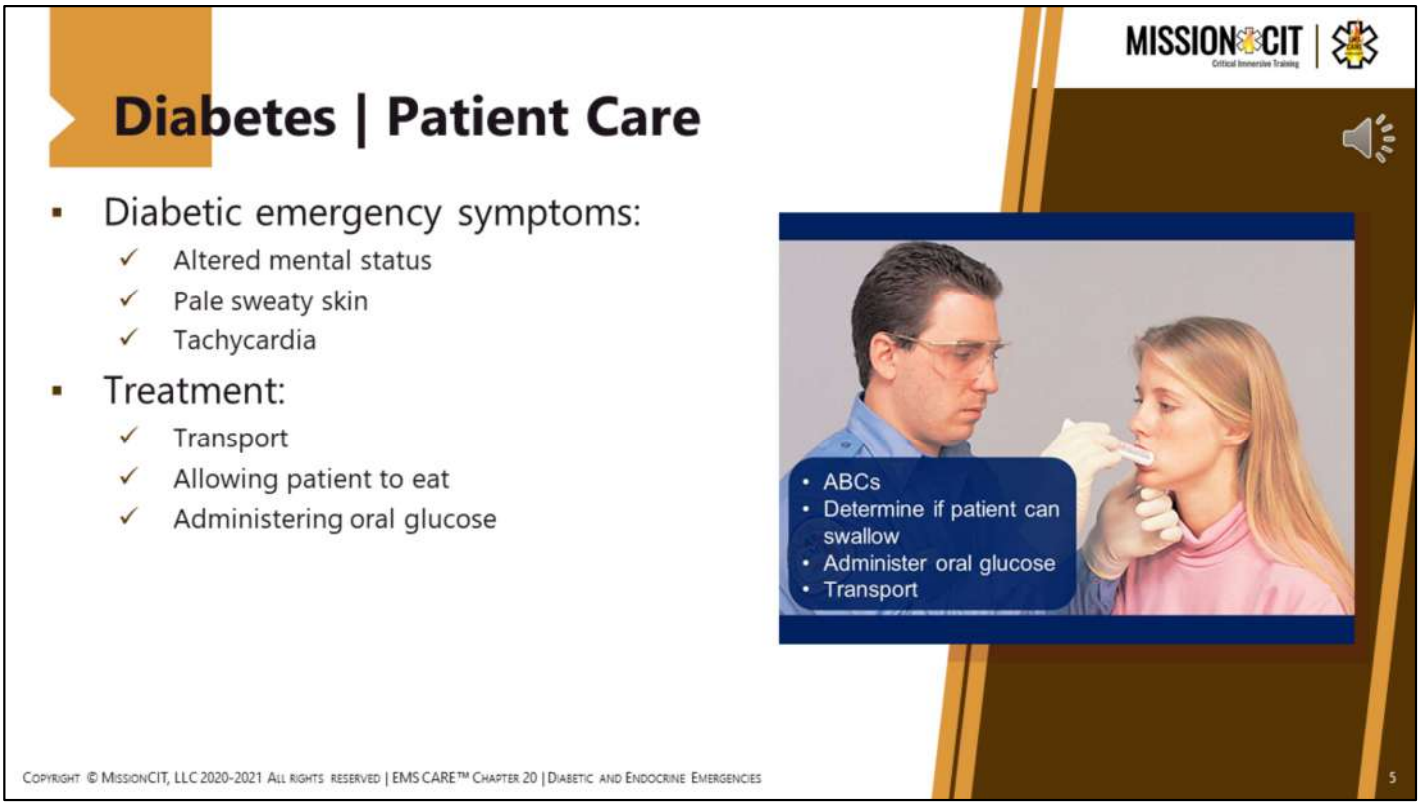
Now, moving on to Hyperglycemia or high blood sugar. Early signs and symptoms of hyperglycemia can help treat the condition promptly. These include: Frequent urination, Increased thirst, Blurred vision, Fatigue, and Headache.

Diabetic ketoacidosis is a serious complication of diabetes that occurs when the body produces high levels of blood acids called ketones. This process produces a buildup of acids in the bloodstream called ketones, eventually leading to diabetic ketoacidosis if untreated.



The basic elements in the assessment of a diabetic patient are safety, primary assessment, patient history, and physical exam. In addition, perform an assessment of the patient's ability to swallow, and the vital signs. Be sure to identify an altered mental status and provide emotional support.

Establish a history of the present episode. Perform a secondary assessment. During the secondary assessment, if your local protocol permits, use a Blood Glucose Meter to establish the patient’s blood sugar level to differentiate hyperglycemia from hypoglycemia. Assess the patient – check the level of consciousness, responses, even look for a medical ID bracelet or necklace to know about the patient’s medical history.



The last topic was patient care, an important aspect of this chapter. You may need to take steps to correct what's going on with a diabetic patient, stop the symptoms, and save their life.

Symptoms of a diabetic emergency include altered mental status, pale sweaty skin, and tachycardia. These symptoms can vary depending on whether the emergency is caused by hyper- or hypoglycemia. A history of diabetes can be obtained by the patient or family. Insulin and other anti-diabetic medications can indicate diabetes as well. Treatment for a diabetic emergency includes transport, allowing the patient to eat if appropriate, and administration of oral glucose.

Now consider:

- List the chief signs and symptoms of a diabetic emergency.
- Explain how you can determine a medical history of diabetes.
- Explain what treatment may be given by an EMT for a diabetic emergency and the criteria for giving it.

With this, we come to the end of the chapter review. You should now proceed to take the quiz.