

Blood glucose regulation



**ASSIGN
BUSTER**

Discussion

1. Explain how insulin changed plasma glucose concentration over the class of the experiment. The insulin changed the plasma glucose degrees by raising dramatically from fasting to the one hr grade. but by hr 3 it dropped once more to about the same degrees as fasting. The glucagon remained about the same on throughout the degrees except that it lowered a spot 1 hr after the repast.

2. Explain how glucagon changed plasma glucose concentration over the class of the experiment.

Glucagon Acts of the Apostless on liver cells to advance dislocation of animal starch into glucose and formation of glucose from lactic acid and certain amino acids.

3. Explain what caused the alteration in plasma ketone concentration over the class of the experiment.

Ketones changed from high during fasting to take down after eating and even after hr three because it foremost they were needed to bring forth ATP but dropped because they were non needed every bit much for fuel.

4. Explain how negative feedback caused the alterations in plasma insulin concentration observed during the experiment.

the degree of blood glucose controls secernment of both glucagon and insulin via negative feedback.

5. Explain how negative feedback caused the alterations in plasma glucagon concentration observed during the experiment.

6. The insulin/glucagon ratio changed over the class of the experiment indicating alterations in glucose storage and alterations in ability to increase blood glucose concentration via glycogenolysis and gluconeogenesis. State when glucose storage capability was highest and why.

7. State when glycogenolysis and gluconeogenesis were highest and why.

1 hr station repast because that's when there was the highest sum of sugar in the blood.

8. Explain how a high blood ketone degree helps the organic structure conserve blood glucose.

When the concentration of ketone organic structures in the blood rises above normal the ketone organic structures, most of which are acids, must be buffered.

9. Repeat your anticipations that were right and give the information from your experiment that supports them. Repeat your anticipations that were not right and rectify them, giving the information from your experiment that supports the rectification.

Application

1. During exercising, adrenaline and noradrenaline are released from the adrenal medulla. Epinephrine and noradrenaline have the same consequence on plasma glucose levels as glucagon. Explain how epinephrine and

norepinephrine affect plasma glucose and why this is of import during exercising.

Epinephrine and noradrenaline will be released by the adrenal myelin in response to emphasize. During exercising the encephalon will let go of adrenaline and noradrenaline because it has been told that the organic structure needs to set to the new demand that must be met. Which means that the bosom rate demands to increase in order to back up itself and work expeditiously. 3. The symptoms of diabetes mellitus include high plasma glucose degrees and diabetic acidosis (blood pH lessenings due to increasing degrees of ketones) . Explain how diabetes causes these symptoms.

Diabetic diabetic acidosis is a unsafe complication of diabetes mellitus because the chemical balance of the organic structure becomes excessively acidic.