What occurs during the absorptive state?

During the absorptive state,nutrients may be used immediately to meet energy demands. -Glycogenolysis is most likely utilized to meet energy demands during the postabsorptive state. -Gluconeogenesis most likely occurs at least 4 hours after the last meal. Nutrients are absorbed and utilized for energy during the absorptive state.

What is a postabsorptive state?

Figure 1. Absorptive State. During the absorptive state,the body digests food and absorbs the nutrients. The postabsorptive state,or the fasting state,occurs when the food has been digested,absorbed,and stored. You commonly fast overnight,but skipping meals during the day puts your body in the postabsorptive state as well.

What happens during a postabsorptive state?

During the postabsorptive state,the body must rely on stored glycogen for energy. When the body is deprived of nourishment for an extended period of time,it goes into "survival mode." The first priority for survival is to provide enough glucose or fuel for the brain. The second priority is the conservation of amino acids for proteins.

What is the absorptive and fed state?

Distinct mechanisms are in place to facilitate energy storage,and to make stored energy available during times of fasting and starvation. The absorptive state,or the fed state,occurs after a meal when your body is digesting the food and absorbing the nutrients(anabolism exceeds catabolism).

What is the absorptive state of energy metabolism?

When nutrients such as glucose and lipid are being absorbed,and their concentrations in the blood are high,the pattern of energy metabolism is known as the absorptive state. In this state,a fraction of the blood glucose is used by various tissues to meet their immediate energy needs.

Where is glucose stored during absorptive phase?

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In summary,during the absorptive phase,glucose is used for energy production by most tissues of the body,and the excess is stored in muscle and liver as glycogen,and in adipose tissue as fat. These relationships are outlined in Figure 9.1.

9. THE ABSORPTIVE AND POST-ABSORPTIVE STATES Chapter objectives After studying this chapter you should be able to: 1. Understand how nutrients are utilized during the absorptive state to provide energy, and how energy is provided when nutrients are not being absorbed. 2. Consider how the absorptive and post-absorptive patterns of metabolism are ???

During sleep at night, the gradual development of insulin resistance, due to growth hormone and cortisol surges, ensures that blood glucose levels will be maintained within normal levels by: (a

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The document summarizes several key aspects of digestion and absorption in the small intestine: 1) Enterocytes in the small intestine have a turnover of around 5 days, with cells differentiating as they migrate up from crypts to villi before being shed.

What occurs during carbohydrate metabolism in the body? A. Muscle storage as glycogen for later use. B. Energy for muscles and other tissues. C. Storage as fat in the form of triglycerides. D. Energy for the central nervous system (brain). E. All of ; Which is a symptom of untreated type 1 (insulin-dependent) diabetes mellitus?

During the absorptive state, anabolic reactions are favored. Carbohydrates are first used for ATP synthesis with excess stored as glycogen or triglycerides in the adipose tissue. Excess amino acids and dietary fat are also converted to triglycerides and stored. During the postabsorptive state, metabolism shifts to favor catabolic reactions.

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Check All That Apply The postabsorptive state is solely under endocrine control. Glycogenolysis and gluconeogenesis are promoted by glucagon. The parasympathetic nervous system promotes lipolysis. Under neural control, energy storage is favored during this time. Growth hormone may be secreted to aid in elevating blood-glucose levels.

Study with Quizlet and memorize flashcards containing terms like describe the fate(s) of the major absorbed nutrients???glucose, amino acids, triglycerides???during the absorptive state of metabolism. (Figure 16.1 and Table 16.1), identify the major sources of energy for the body's cells during the absorptive period., identify the sources of plasma cholesterol gain and loss. ???

The document summarizes several key aspects of digestion and absorption in the small intestine: 1) Enterocytes in the small intestine have a turnover of around 5 days, with cells differentiating as they migrate up from ???

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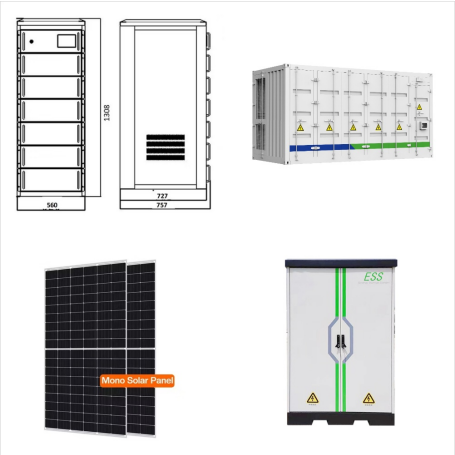
feeding is controlled by a variety of hormonal and neural signals that stimulate and/ or inhibit feeding -related nuclei found in hypothalamus Hypothalamus houses two nuclei that control homeostatic variables associated with feeding 1) Satiety Center- elicits feeding of fullness and inhibits desire to eat 2) Hunger Center- (feeding center) elicits feelings of hunger and ???



Study with Quizlet and memorize flashcards containing terms like Select all that are liver functions., Classify the given terms or examples with the appropriate category of liver functions., A lipoprotein takes lipids from peripheral tissues and delivers them to the liver. This lipoprotein is likely a and more.

Which of the following statements is true regarding the regulation of the postabsorptive state? Your solution's ready to go! Enhanced with AI, our expert help has broken down your problem into an easy-to-learn solution you can count on. See Answer See Answer See Answer done loading.

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Distinct mechanisms are in place to facilitate energy storage, and to make stored energy available during times of fasting and starvation. Figure 2 summarizes the metabolic processes occurring in the body during the postabsorptive state. Figure 2. Click to view a larger image. During the postabsorptive state, the body must rely on stored

The human body is capable of regulating growth and energy balance through various feedback mechanisms. Get to know the events of absorptive and post-absorptive states. This tutorial also describes the endocrine and neural control of compounds such as insulin and glucagon. It also deals with the regulation of growth, heat loss, and heat gain.

Study with Quizlet and memorize flashcards containing terms like Which of the following is least likely to occur late in the postabsorptive state?, The events that occur in the postabsorptive state collectively, During the postabsorptive state, the first source of glucose is and more.

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Figure 2 summarizes the metabolic processes occurring in the body during the postabsorptive state. Figure 2. Postabsorptive State. During the postabsorptive state, the body must rely on stored glycogen for energy. Starvation. When the body is deprived of nourishment for an extended period of time, it goes into "survival mode."

Study with Quizlet and memorize flashcards containing terms like During the post-absorptive state, metabolism shifts to favor reactions which are, In chronic alcoholics, excess fatty deposits in the liver can eventually result in, An inherited genetic defect in one or more genes that code for enzymes that control metabolic processes is called a and more.

Study with Quizlet and memorize flashcards containing terms like Ingested nutrients leave the gastrointestinal tract and enter the blood during the, Which of these are processes favored during the absorptive state?, Net synthesis of fat, glycogen, and protein is inhibited during the ____ state and more.

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Study with Quizlet and memorize flashcards containing terms like There are no nutrients in the gastrointestinal tract and the body is relying on its own energy stores during the, Which of these are processes favored during the absorptive state?, Energy substrates, such as glucose, fatty acids, and amino acids are processed into larger molecules that can be stored in the body ???

-During the absorptive state nutrients may be used immediately to meet energy demands.
-Glycogenolysis is most likely utilized to meet energy demands during the postabsorptive state.
-Gluconeogenesis most likely occurs at least 4 hours after the last meal.

The first stage of metabolism to use glucose for energy is glycolysis. This is an example of a(n) _____. catabolic reaction. The only source of energy that can be used directly by the cells is _____. adenosine triphosphate (ATP) The compounds used for gluconeogenesis include _____ lactate. In the electron transport chain, the passing of

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1. Increases uptake of nutrients into tissues (mainly skeletal muscle and adipose tissue, NOT LIVER) Glucose, amino acids, fatty acids 2. Stimulates synthesis of storage form of nutrients (Glycogen, protein, triglycerides) 3. Inhibits metabolism of stored nutrients (Glycogenolysis, proteolysis, lipolysis) Insulin does NOT increase liver uptake of glucose.

Glucose is the major energy source; needed structural and functional molecules are made; excess carbs, fats, and amino acids are stored as glycogen and fat. Events of _ are controlled by insulin, which enhances the entry of glucose (and a.a.) into cells and accelerates its use for ATP synthesis or storage as glycogen or fat.

During fasting, post-absorptive state, fatty acid oxidation contributes proportionately more to energy expenditure than does carbohydrate oxidation. This phenomenon is due largely to greater lipid and lower carbohydrate availability, as plasma non-esterified fatty acid (NEFA) concentrations rise in response to lower insulin and higher counter

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Focus Figure 8.16: Metabolism During the Postabsorptive State . Volume. Speed. Enter Full Screen. Video Duration Elapsed Time: 00:00 / Total Time: 00:00. Timeline Progress. Playback 0% complete. Focus Figure 8.16: Metabolism During the Postabsorptive State . Focus Figure 8.16: Metabolism During the Postabsorptive State

The flactuations of glucose and insulin in human during the course of a day: The fluctuation of blood sugar (red) and the sugar-lowering hormone insulin (blue) in humans during the course of a day with three meals. One of the effects of a sugar-rich vs a starch-rich meal is highlighted. Postabsorptive State: Resting after absorption of meal.

THE ABSORPTIVE AND POST-ABSORPTIVE STATES. Margaret E. Smith PhD DSc, Dion G. Morton MD DSc, in The Digestive System (Second Edition), 2010 Comparison with post-absorptive state. The pattern of metabolism in untreated IDDM is an exaggeration of that seen in the post-absorptive state sulin levels are low, glucose and amino acid uptake into tissues is ???