

Topics for the evaluation of knowledge
ANABOLISM AND CATABOLISM OF POLYSACCHARIDES

1. Digestion and absorption of polysaccharides
2. The fate of absorbed polysaccharides
3. Synthesis of glycogen from α glucose (glycogenesis, biological meaning of the process)
4. Control of activity of glycogen synthase in muscles
5. Catabolism of glycogen to glucose in liver (glycogenolysis)
6. Activation of glycogen phosphorylase
7. Control of activity of glycogen phosphorylase in muscles
8. Glycolysis (schemes, enzymes, biological meaning)
9. Energetic effects of aerobic and anaerobic metabolism of glucose
10. Metabolism of pyruvic acid
11. Muscle-liver cycle of lactate (Cori cycle)
12. Explain the specificity of glycolysis in erythrocytes and muscles
13. Gluconeogenesis (schemes, enzymes, biological meaning)
14. Gluconeogenesis from aminoacids (schemes, enzymes, biological meaning)
15. Pentose phosphate cycle (schemes, enzymes, biological meaning)
16. Main differences between glycolysis and pentose phosphate cycle
17. Hormonal regulation of polysaccharide metabolism
18. Krebs cycle (schemes, enzymes, biological meaning)
19. Biological oxidation
20. Respiratory chain
21. Substrate and oxidative phosphorylation

