





# Quiz

## LEC 5

1. What is the main purpose of drug metabolism?
  - a) To convert drugs to a more polar metabolite for excretion
  - b) To convert drugs to a more lipophilic metabolite for absorption
  - c) To convert drugs to a more stable form for storage
  - d) To convert drugs to a more toxic form for therapeutic effects
2. Which organs are involved in drug metabolism?
  - a) Liver, intestine, lung, plasma, skin, and kidney
  - b) Liver, brain, heart, muscle, and bone
  - c) Stomach, intestine, lung, skin, and kidney
  - d) Liver, intestine, kidney, spleen, and pancreas
3. What are the types of biotransformation reactions in drug metabolism?
  - a) Oxidation, reduction, and hydrolysis
  - b) Synthesis, degradation, and condensation
  - c) Polymerization, dehydration, and decarboxylation
  - d) Hydroxylation, phosphorylation, and acetylation





# Quiz

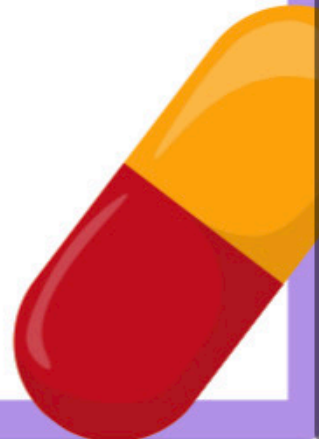
4. Which enzyme system is responsible for the majority of oxidation reactions in drug metabolism?
- a) Cytochrome P450
  - b) Nitroreductase
  - c) Carbonyl reductase
  - d) Cholinesterase
5. What is the most common conjugation reaction in phase II reactions?
- a) Glucuronide conjugation
  - b) Sulphate formation
  - c) Glycine conjugation
  - d) Glutathione conjugation
6. What is the consequence of phase I reactions?
- a) Modification of drug activity
  - b) Inactivation of drug
  - c) Activation of prodrugs
  - d) Formation of toxic metabolites





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7. Which enzyme is responsible for the oxidation of xanthine to uric acid?
- a) Cytochrome P450
  - b) Nitroreductase
  - c) Carbonyl reductase
  - d) Xanthine oxidase
8. Which enzyme is responsible for the hydrolysis of insulin?
- a) Cholinesterase
  - b) Peptidase
  - c) Glucuronyl transferase
  - d) Monoamine oxidase
9. What is the main site of microsomal enzymes in the body?
- a) Liver
  - b) Intestine
  - c) Lung
  - d) Plasma
10. What factors can affect biotransformation?
- a) Drugs, pathological factors, pharmacogenetic variations, hepatic blood flow, and age
  - b) Drugs, genetic factors, diet, exercise, and age
  - c) Pathological factors, hormonal factors, diet, exercise, and age
  - d) Drugs, hormonal factors, genetic factors, and diet





# Quiz

Answer Key:

1. a) To convert drugs to a more polar metabolite for excretion
2. a) Liver, intestine, lung, plasma, skin, and kidney
3. a) Oxidation, reduction, and hydrolysis
4. a) Cytochrome P450
5. a) Glucuronide conjugation
6. a) Modification of drug activity
7. d) Xanthine oxidase
8. b) Peptidase
9. a) Liver
10. a) Drugs, pathological factors, pharmacogenetic variations, hepatic blood flow, and age

