

Pathophysiology and Mechanism of Addiction

1. Define addiction and explain its main features.
2. Describe the brain reward pathway involved in addiction.
3. What neurotransmitters are implicated in the neurobiology of addiction?
4. Explain the difference between tolerance and dependence.
5. What is pharmacokinetic tolerance and how does it occur?
6. Name some drugs that cause enzyme induction leading to pharmacokinetic tolerance.
7. Define physical dependence and describe its clinical significance.
8. What neuroadaptations occur in the brain during opioid dependence?
9. How does chronic alcohol use affect GABA and NMDA receptors?
10. Distinguish between physical and psychological dependence.