



Quick Guide Pharmacology

Pharmacology

Pharmacology involves the study and application of drugs and medications, focusing on effects, interactions, and mechanisms of action. As part of the nursing practice, nurses administer medications, educate clients about proper usage, and monitor for adverse reactions. Understanding dosages, routes of administration, and potential adverse effects are vital.

Key pharmacology concepts

Term	Definition
Pharmacokinetics	Movement of the drug within the body; how the body acts on the drug, including absorption, bioavailability, distribution to tissues, metabolism, and excretion.
Pharmacodynamics	Involves receptor binding, post-receptor effects, and chemical interactions; determines the onset, duration, and intensity of a drug's effect.
Pharmacotherapeutics	The therapeutic action of a drug — the effect or reaction of the drug on biological tissue, including effects beyond the desired action.
Chemotherapy	Use of chemicals to destroy fast-growing cells in the body; used mainly for the treatment of cancer and cancerous tumors.
Toxicology	Study of harmful effects of chemical substances on living tissue; predicts how chemicals may cause harm; study of poisons.
Clinical Pharmacology	Study of medications in humans and their effects.

General category overview

Category	Definition
Analgesics	Medications used to relieve pain.
Antacids	Substances that neutralize stomach acidity to relieve indigestion and heartburn.
Anxiolytics	Drugs that reduce anxiety; often used to treat anxiety disorders.
Antiarrhythmics	Medications that manage abnormal heart rhythms.
Anti-infectives	Agents that prevent or treat infections by killing or inhibiting pathogenic microorganisms.
Antibiotics	Drugs that specifically target bacterial infections.
Anticonvulsants	Medications that prevent or reduce the severity of seizures.
Antidepressants	Medications used to treat depressive disorders.
Antidiarrheals	Drugs that alleviate diarrhea by reducing bowel movement frequency or improving stool consistency.
Antiemetics	Medications that prevent or relieve nausea and vomiting.
Antifungals	Drugs that treat fungal infections.
Anticoagulants	Medications that prevent blood clotting.
Antihistamines	Drugs that counteract allergic reactions by blocking histamine receptors.
Antihypertensives	Medications that lower blood pressure.
Anti-inflammatories	Agents that reduce inflammation, pain, and swelling.
Antineoplastics	Drugs that fight against cancer cells.
Antipsychotics	Medications used to manage psychosis or severe mental disorders.
Antipyretics	Substances that reduce fever.
Antivirals	Medications that treat viral infections by inhibiting viral replication.
Barbiturates	Central nervous system depressants used as sedatives or anesthetics.
Benzodiazepines	Drugs that act as tranquilizers, commonly used for anxiety, insomnia, and seizures.

Beta blockers	Medications that reduce heart rate and lower blood pressure by blocking beta-adrenergic receptors.
Bronchodilators	Drugs that relax airway muscles to improve breathing.
Corticosteroids	Anti-inflammatory drugs that mimic cortisol and reduce immune responses.
Cough suppressants	Agents that inhibit the cough reflex.
Cytotoxics	Drugs toxic to cells, often used in chemotherapy.
Decongestants	Medications that relieve nasal congestion by constricting nasal blood vessels.
Diuretics	Drugs that promote the excretion of urine.
Expectorants	Agents that help clear mucus from the airways.
Hormones	Chemical messengers that regulate physiological processes.
Hypoglycemics	Drugs that lower blood sugar levels, especially in diabetes.
Immunosuppressives	Medications that inhibit or prevent immune system activity.
Laxatives	Substances that promote bowel movements.
Muscle relaxants	Drugs that relieve muscle tension and spasms.
Vitamins	Organic compounds essential for metabolic processes.

Nursing Pharmacology: Intro

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[Table of contents](#)

What is pharmacology in nursing?

Pharmacology is the study of medicines and drugs, including the action, use, and effects on the body. It includes knowledge of physiology, biochemistry, and molecular biology.

For nursing students, pharmacology is known as an intimidating challenge to pass in nursing school.

For practicing nurses, pharmacology plays a big role in daily practice:

- Calculating dosages and administering medications
- Monitoring clients for adverse reactions and effectiveness
- Ensuring client safety by mind drug interactions and contraindications
- Educating clients and families about medication management and usage

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The Nurse's Role in Pharmacology

BASIC OVERVIEW OF PHARMACOLOGY

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