1.13: Glossary

**Absorption**: The first stage of pharmacokinetics: medications enter the body and travel from site of administration into the body’s circulation.

**Adverse Effect**: An unintended and potentially dangerous pharmacological effect that occurs when a medication is administered correctly.

**Affinity**: The strength of binding between drug and receptor.

**Agonist**: A drug that binds to a “receptor” and produces an effect.

**Antagonist**: A molecule that prevents the action of other molecules, often by competing for a cellular receptor; opposite of agonist.

**Bioavailability**: The presence of a drug in the blood stream after it is administered.

**Blood-Brain Barrier**: A nearly impenetrable barricade that is built from a tightly woven mesh of capillaries cemented together to protect the brain from potentially dangerous substances such as poisons or viruses.

**Distribution**: The second stage of pharmacokinetics; the process by which medication is distributed throughout the body.

**Dose-Response**: As the dose of a drug increases, the response should also increase. The slope of the curve is characteristic of the particular drug-receptor interaction.

**Duration**: The length of time that a medication is producing its desired therapeutic effect.
**Efficacy:** The maximum effect of which the drug is capable.

**Excretion:** The final stage of pharmacokinetics; the process whereby drug byproducts and metabolites are eliminated from the body.

**First Pass Effect:** The inactivation of orally or enterally administered drugs in the liver and intestines.

**Mechanism of Action:** How a medication works at a cellular level within the body.

**Metabolism:** The breakdown of a drug molecule via enzymes in the liver (primarily) or intestines (secondarily).

**Onset:** When a medication first begins to work and exerts a therapeutic effect.

**Peak:** When the maximum concentration of a drug is in the bloodstream.

**Pharmacodynamics:** The study of how drugs act at target sites of action in the body.

**Pharmacogenetics:** The study of how a person’s genetic make-up affects their response to medicines.

**Pharmacokinetics:** The study of how the body absorbs, distributes, metabolizes, and eliminates drugs.

**Pharmacology:** The science dealing with actions of drugs on the body.

**Pharmacy:** The science of the preparation of drugs.

**Potency:** The drug dose required to produce a specific intensity of effect.

**Selectivity:** A “selective” drug binds to a primary and predictable site creating one desired effect. A “non-selective” drug can bind to many different and unpredictable receptor sites with potential side effects.

**Side Effect:** Effect of a drug, other than the desired effect, sometimes in an organ other than the target organ.

**Therapeutic Index:** A quantitative measurement of the relative safety of a drug that compares the amount of drug that produces a therapeutic effect versus the amount of drug that produces a toxic effect. Medication with a large therapeutic index is safer than a medication with a small therapeutic index.

**Therapeutic Window:** The dosing window in which the safest and most effective treatment will occur.