



How Drug Move through the Body

Therapeutic Responses & Adverse Reactions Medical Books

The same receptors can be found in different tissues and organs in the body, but receptors produce different responses depending on their location. As a result, a specific drug can affect the body in more than one way. Desirable effects are called therapeutic or beneficial responses. Undesirable or harmful effects are called adverse reactions. Some adverse reactions, or side effects, can be predicted. The most common side effects are drowsiness, headache, sleeplessness, nausea, and diarrhea. Other reactions, such as those that occur only in specific individuals for unexpected reasons, called idiosyncratic reactions, and those that occur with the triggering of the body's immune system, called allergic reactions, are less predictable.

Drug toxicity, or poisoning, can occur when drugs are given in too large a dose or when individuals take a particular drug over a long period of time-the drug may build up to dangerous levels in the kidneys and liver and damage these organs. For some drugs, such as those used to treat epilepsy, the difference between therapeutic and toxic concentrations is small. Physicians constantly monitor the precise levels of such drugs in an individual's bloodstream to prevent drug poisoning.

Other drugs, such as those used to treat cancer, are known to have toxic effects; however, the benefits outweigh the risks-that is, treatment without them may result in death.