



How Drug Move through the Body

Dose-Response Relationship

The extent of the body's response to a drug depends on the amount administered, called the dose. At a low dose, no response may be apparent. A higher dose, however, may produce the desired effect. An even higher dose may produce an undesirable or harmful response. For example, to relieve a headache most adults require two tablets of aspirin. A half tablet may provide no relief from pain while ten tablets may cause burning pain in the stomach or nausea.

The doses prescribed by physicians are those recommended by each drug's manufacturer to produce the best therapeutic, or medically beneficial, responses in the majority of patients. However, doses may need to be adjusted in certain individuals. For example, a person may be born without the enzyme required to metabolize a particular drug while other individuals may suffer from lung disorders that prevent them from absorbing inhaled drugs. Factors such as alcohol consumption, age, the method of drug administration, and whether or not the individual has taken the drug previously can affect an individual's response to a drug.