A Pill's Perilous Pathway

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Pharmacokinetics, by definition, is the study of the movement of drugs within the body. In order for a drug to aid in the healing of a body from disease or other ailment, a drug must be presented in concentrations that allow it to affect the right place with the right force. The purpose of this experiment was to determine how the different coatings on four types of pills (soft gels, gel caps, tablets, compressed caplets) affect the rate at which it enter the bloodstream. To replicate the digestive process in a human body, hydrochloric acid was used in two different concentrations - one for the stomach, and one for the small intestine. The control group was distilled water. After performing the experiment in the school lab, it was found that compressed caplets were dissolved in the small intestine, while the others were dissolved in the stomach. Tablets were dissolved the quickest, but most likely lost most of the effectiveness of the medication due to the strong stomach acid. Ultimately, this experiment reaches various industries of work, such as engineering and medicine, while also being very beneficial to the average citizen in their time of need.

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