

## Editorial Note on Food-Drug Interactions

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### EDITORIAL

Pharmacokinetic or pharmacodynamics pathways can cause food-drug interactions. Pharmacokinetic processes are concerned with how the body reacts to a medication, whereas pharmacodynamics mechanisms are concerned with how pharmaceuticals affect the body. Food has been proven to affect medication absorption and metabolism in a variety of ways. Every year, a large number of medications are developed and released.

Food-medication interactions can have negative consequences for the patient's nutritional state as well as the safety and efficacy of pharmacological therapy. Food-drug interactions should be avoided in this scenario due to the risk of unexpected or negative results. Drugs given by mouth must be absorbed either by the stomach lining or the small intestine, as is standard therapeutic practise. The presence of food in the digestive track may impact the reduction in drug absorption.

It may be feasible to prevent such interactions if the medicine is taken 1 hour before or 2 hours after eating the food. This paper highlights the effects of a variety of foods, including milk and milk products, grapefruit and grapefruit juice, bananas, oranges, legumes, fermented meats, and pickled fish, as well as some nutrient elements like calcium, potassium, magnesium, iron, zinc, and vitamin K, as well as their clinical implications.

#### Some examples of food and drug interactions:

- Warfarin and Vitamin K
- Insulin, Oral Diabetic Agents, and Alcohol
- Digoxin, High-Fiber Diets, and Herbs

- Statins and Grapefruit
- Calcium Channel Blockers and Grapefruit
- Erectile Dysfunction Drugs and Grapefruit
- Acetaminophen and Alcohol
- Antibiotics and Dairy Products

Because a drug interacts with another drug the person is taking (drug-drug interaction), food, drinks, or dietary supplements the person is ingesting (drug-nutrient/food interaction), or another ailment the person has, the impact of a drug on a person may differ from what is expected (drug-disease interaction). A drug interaction occurs when a substance alters the activity of a drug, causing the effects to be enhanced or lessened, or producing a new effect that neither of the drugs could cause on its own.

These interactions may develop as a result of inadvertent abuse or a lack of understanding of the active components in the relevant drugs. When it comes to food-drug interactions, doctors and pharmacists are aware that taking certain foods and pharmaceuticals at the same time might impair the body's capacity to utilise a specific food or drug or produce major adverse effects. Changes in pharmaceutical, pharmacokinetic, or pharmacodynamics qualities might cause clinically significant medication interactions that could damage the patient. Some medication interactions may be used to the benefit of patients, while the majority of drug interactions result in adverse drug effects.

As a result, it is recommended that patients follow their doctor's and physician's directions to get the most advantages with the fewest food-drug interactions. Data was extracted from several review and original papers on general and particular medication interactions with food for the literature survey.

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