



## THE EFFECTS OF GRAPEFRUIT AND ITS JUICE ON CERTAIN DRUGS

### The Issue

Certain drugs can cause serious or occasionally life-threatening effects if consumed in combination with grapefruit or its juice .

### Background

Consuming grapefruit or its juice (fresh or frozen) can increase, or less commonly decrease, the effects of some drugs. There are several substances in grapefruit that interfere with the way your body handles certain drugs.

These effects are known to be caused by the combination of grapefruit and its juice with certain drugs and health products used in the treatment of medical conditions, including, but not limited to:

- Angina
- Anxiety
- Cancer
- Convulsions
- Depression
- Erectile dysfunction
- Gastrointestinal reflux
- High blood pressure
- High lipid (cholesterol) levels
- HIV/AIDS
- Infections
- Irregular heart rhythms
- Organ graft rejections
- Psychotic problems

Sour oranges, such as Seville, or their juice, may have an effect similar to

grapefruit juice. Most other citrus fruits, such as lemons, limes, citrons, naturally sweet oranges and tangerines are not thought to have this effect. However, tangellos, a hybrid of grapefruit, may also interfere with drugs.

### How Grapefruit and Its Juice React with Certain Medications

There are substances in grapefruit that can interfere with the way your body absorbs and breaks down (metabolizes) certain drugs. This interference allows a higher amount of the drug than usual to circulate in your bloodstream, which can occasionally result in serious or life-threatening adverse reactions.

As little as one glass of grapefruit juice (8 oz. or 250 mL) can cause an increased blood drug level and the effects can last for three days or more. Therefore, even if you drink the juice in the morning and do not take your medication until bedtime, the level of the drug in your blood could still be affected.

The effects vary from one person to another, from one drug to another, and from one grapefruit juice preparation to another. This results in an unpredictable increase in blood drug level, which in some cases can cause serious effects.

## Minimizing Your Risk

Take the following precautions to minimize the risk of adverse effects when consuming grapefruit or its juice:

- If you are taking medication for any of the conditions listed above, DO NOT drink grapefruit juice or eat grapefruit in any form until you have talked to your doctor and your pharmacist about the potential for an adverse reaction.
- Avoid taking any drug with grapefruit juice until you have talked to your doctor or pharmacist.
- Read the labels on foods and natural health products to make sure they do not contain grapefruit or its juice, or Seville oranges.
- Always report any adverse drug reaction to your doctor or pharmacist immediately.

## Health Canada's Role

Health Canada has issued several communication documents to remind health care providers of possible interactions between grapefruit and drugs. In addition, Health Canada is working with the drug manufacturers whose products are adversely affected by grapefruit, to ensure that the needed information is placed on the product label. A public advisory has been issued on grapefruit and its effect on certain drugs.

## Need More Info?

Contact your doctor or pharmacist if you have any concerns about possible interaction between the drug you are taking and grapefruit.

To report all adverse reactions or drug interactions with grapefruit contact:

Adverse Reaction Information Unit  
Marketed Health Products Directorate  
Health Products and Food Branch  
Health Canada,  
Tunney's Pasture,  
Locator 0201C1  
Ottawa, Ontario, K1A 1B9  
Telephone: (613) 957-0337 or  
Toll-free: 1 866 234-2345  
Facsimile: (613) 957-0335  
or 1 866 678-6789

or visit our website at:  
<http://www.hc-sc.gc.ca/hpb-dgps/therapeut/>