



Grapefruit Juice Drug Interactions: An Update Jul. 16, 2002

Health Canada has recently issued an advisory to Canadians warning them not to consume grapefruit or its' juice if they are taking medication used to treat certain conditions until they have checked with their pharmacist or physician. These conditions include: anxiety, depression, high blood pressure, HIV/AIDS, cancer, irregular heart rhythms, infections, psychotic problems, angina, convulsions, gastrointestinal reflux, high lipid levels and organ graft rejections.

This advisory has prompted much media coverage and as a result pharmacists are being asked about specific medication regimens. Since the advisory does not specify which medications could be problematic, we feel the following list would be useful. This list contains drugs with potential for clinically significant interactions and may not be exhaustive.

It appears that certain components of grapefruit and its' juice can inhibit CYP3A4. Inhibition of this isoenzyme makes drugs metabolized primarily by this pathway susceptible to the interaction. The asterisk denotes drugs that should not be taken with grapefruit or its' juice

Cholesterol-Lowering Drugs: *lovastatin, *simvastatin, *atorvastatin, fluvastatin

Calcium channel blockers: * felodipine, *nifedipine, amlodipine, verapamil, diltiazem

Benzodiazepines: * midazolam (oral), *triazolam, *diazepam, alprazolam

Immunosuppressants: * cyclosporin, *tacrolimus, sirolimus

Miscellaneous: clomipramine, carbamazepine, colchicine, erythromycin, methylprednisolone (oral), quinidine, saquinavir, sildenafil, montelukast, carvedilol, amiodarone

Drugs studied showing lack of interaction: amprenavir, caffeine, clarithromycin, itraconazole, phenytoin, quinine, theophylline, warfarin

The following references should be consulted for more information on this topic and for more detail.

<http://powernetdesign.com/grapefruit>

http://www.hc-sc.gc.ca/english/protection/warnings/2002/2002_49e.htm

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