

Understanding Potential **Interactions** with **Prescription Drugs**



Check out
The Tips to Remember

Prescription Drugs & Interactions with Smoking

Facts: Smoking can:

- Reduce medication effectiveness.
- Make drug therapy unpredictable.
- Increase the risk of side effects.
- Require medication dosage change if starting or stopping smoking during drug therapy.
- Include cigarette smoking, chewing tobacco, snuff and other nicotine-containing products.
- Cause or contribute to
 - Lung cancer
 - Oral cavity cancer
 - Pharynx cancer
 - Pancreatic cancer
 - Liver cancer
 - Kidney cancer
 - Ureter cancer
 - Urinary bladder cancer
 - Uterine and cervical cancer
 - Myeloid leukemia
 - Impotence.

Disclaimer:

This pamphlet does not list all the prescription drugs that may have interactions. It is intended as a guide only. Medications can be safe and effective when used appropriately.

The information does not replace the advice from your pharmacist, physician or nurse practitioner.

Tips to Remember:



DO NOT stop or adjust your medication without consulting with your pharmacist, physician or nurse practitioner.



Condition	Drug Class/Generic Name	Brand Name	Interaction with Smoking
Heart disease, high blood pressure, arrhythmia, heart rate disorder	Beta-blockers (propranolol, atenolol, metoprolol, labetalol), mexiletine, prazosin	Inderal, Tenormin, Lopresor, Trandate, Minipress	<p>Can increase the liver enzymes that break down the medications in the body.</p> <p>Can lead to decreased medication effect.</p> <p>May require higher medicine dosages.</p>
Anxiety, sleep problem	Oxazepam, diazepam, chlordiazepoxide	Serax, Valium, Librax	
Blood clot	Heparin, warfarin	Lipactin, Coumadin	
Asthma, COPD	Theophylline	Uniphyll, Theolair	
Depression	Imipramine, clomipramine, fluvoxamine	Tofranil, Anafranil, Luvox	
Diabetes	Insulin	Humulin, Novolin	
Pain	Lidocaine, pentazocine	Xylocaine, Talwin	
Psychotic disorder	Fluphenazine, haloperidol, risperidone, clozapine, olanzapine, chlorpromazine	Modecate, Haldol, Risperdal, Clozaril, Zyprexa, Largactil	
Epilepsy	Clorazepate	Tranxene	
Menopause	Estrogen	Premarin	
Smoking cessation	Nicotine	Nicoderm, Nicorette, Nicotrol, ProStep, Habitrol (patch, gum, inhaler)	Can lead to nicotine overdose if continuing to smoke while using nicotine replacement medications.

Interactions with Smoking

Prescription Drugs & Interactions with Alcohol

Facts: Alcohol can:

- Cause feelings of anxiety, depression, and aggression.
- Increase harmful reactions.
- Reduce drug effectiveness or dangerously increase the effect of other drugs.
- Cause harmful interactions even if not taken at the same time.

Facts: Prescription drugs can:

- Increase intoxication and other alcohol effects.
- React with even a small amount of alcohol.
- Contain more than one ingredient that can react with alcohol.

Tips to Remember:



Many adults can and do enjoy alcohol. If you are one of them, please discuss your intake with your healthcare provider to assess whether or not to make any changes.



Make sure you understand the instructions on how to take your medication. Don't be afraid to ask questions. You have the right to know.



Condition	Drug Class/Generic Name	Brand Name	Interaction with Alcohol
Heart disease, High blood pressure	Isosorbide, nitroglycerin, doxazosin, prazosin, terazosin, atenolol, metoprolol, propranolol, felodipine, nifedipine, verapamil	Isordil, Nitrostat, Cardura, Minipress, Hytrin, Tenormin, Lopresor, Inderal, Plendil, Adalat, Isoptin	Alcohol dilates blood vessels and may cause dizziness, drowsiness, and lower blood pressure.
Anxiety, sleep problem	benzodiazepines (alprazolam, clonazepam, diazepam, lorazepam, flurazepam, oxazepam, triazolam, temazepam), trazodone	Xanax, Rivotril, Valium, Ativan, Dalmane, Serax, Halcion, Restoril, Desyrel	May increase drowsiness and dizziness.
Blood clot	acetylsalicylic acid, warfarin	ASA, Aspirin, Coumadin	May damage stomach and cause ulceration, increase the risk of bleeding and bruising.
Allergies	diphenhydramine	Benadryl	May increase drowsiness and dizziness.
Depression	TCA (amitriptyline, clomipramine, desipramine, imipramine, nortriptyline)	Elavil, Anafranil, Norpramin, Tofranil, Aventylx	May increase drowsiness and dizziness.
	MAOI (Phenelzine, Tranclypromine)	Nardil, Parnate	May cause severe headache, dilated pupils, neck stiffness, nausea, vomiting, sweating, irregular heartbeat, chest pain and death. Avoid beer (alcoholic and non-alcoholic), red wine (especially Chianti), sherry, vermouth, and other distilled spirits.
Diabetes	glyburide, metformin, tolbutamide, chlorpropamide	Diabeta, Glucophage, Diabinese	May lower blood sugar level.
Bacterial / fungal infection	metronidazole, sulfamethoxazole	Flagyl, Septra	May cause flushing, fast heartbeats, nausea and vomiting.
	fluconazole, itraconazole, ketoconazole	Diflucan, Sporanox, Nizoral	May increase the risk of liver toxicity. Alcohol use can cause flushing, nausea, vomiting, headache, swelling, and rashes.
Pain / Muscle stiffness	acetylsalicylic acid, ibuprofen, acetaminophen, naproxen, codeine, butalbital, hydrocodone, methocarbamol, cyclobenzaprine	Aspirin, Advil, Motrin, Excedrin, Tylenol, Naprosyn, Fiorinal, Hycodan, Robaxacet, Flexeril	May damage stomach and liver. May increase drowsiness and dizziness.

Interactions with Alcohol

Prescription Drugs & Interactions with Food & Beverages

Facts: Food & Beverages can:

- Have powerful ingredients that interact with the human body in different ways. Your diet and lifestyle can sometimes have a significant impact on a drug's ability to work in the body.
- Interact with medicines. This can result in the medication being either less effective, or possibly causing dangerous side effects.

Remember...

- Inform your physician or pharmacist if your eating habits change. This may have an impact on how effective the medication will be.
- Maintain enough fluid intake for general health. If certain juices are not recommended with a medication, replace the juice with another fluid.

Tips to Remember:



Obtain your prescription and non-prescription medicines at the same pharmacy, so that your pharmacist can check for possible interactions with other medicines.



Carry a list of all your medications and dosages with you at all times and keep a copy in an easy-to-find place at home.



Condition	Drug Class/Generic Name	Brand Name	Interaction with Food & Beverages
Angina (chest pain), heart disease	Isosorbide, nitroglycerin, digoxin	Isordil, Nitro-Dur, Nitrostat, Lanoxin	Avoid grapefruit juice – can increase the risk of side effects such as difficulty breathing, blurred vision and irregular heartbeat.
High blood pressure	Calcium channel blockers (felodipine, nifedipine, amlodipine)	Plendil, Adalat, Norvasc	Avoid grapefruit juice – can increase medication levels and side effects such as difficulty breathing, irregular heartbeat, chest pain or severe dizziness. If you routinely drink grapefruit juice, do NOT change intake abruptly.
	Diuretics (triamterene, spironolactone, amiloride)	Dyrenium, Aldactone, Midamor	Foods such as bananas, oranges and green leafy vegetables are rich in potassium. Getting too much potassium can make you feel light-headed, weak, tired and have a slow heartbeat.
High cholesterol	Statins (atorvastatin, rosuvastatin, pravastatin, simvastatin)	Lipitor, Crestor, Pravachol, Zocor	Avoid grapefruit juice – can increase the risk of side effects.
Blood clots	Blood thinners (acetylsalicylic acid, warfarin)	ASA, Aspirin, Coumadin	Eat a consistent amount of vitamin K foods every day. Vitamin K rich foods include green leafy vegetables like broccoli, brussel sprouts, spinach, turnip greens, liver, lentils, garbanzo beans and soybeans. Avoid mango and cranberry juice - may increase risk of bleeding.
Bacterial / fungal infections	Fluoroquinolone antibiotics (ciprofloxacin, levofloxacin), tetracycline, fluconazole, ketoconazole, itraconazole	Cipro, Levaquin, Diflucan, Nizoral, Sporanox	Avoid dairy products (milk, yogurt), vitamins or minerals containing iron, magnesium, calcium, and antacids because they can reduce the absorption of the medication.
Depression, anxiety, sleep disturbances	Benzodiazepines (lorazepam, diazepam, alprazolam, clonazepam, oxazepam, temazepam), Clomipramine	Ativan, Valium, Xanax, Rivotril, Serax, Restoril, Anafranil	Avoid grapefruit juice – can increase the risk of side effects such as allergic reaction, rash, slowed breathing, low blood pressure, hallucinations, severe confusion.
Osteoporosis	Bisphosphonates (alendronate, etidronate, risedronate)	Fosamax, Didrocal, Actonel	Avoid taking medication at the same time as with milk, other dairy products, antacids, calcium containing foods or vitamins, which can decrease its absorption.

Interactions with Food and Beverages

Prescription Drugs & Interactions

with Non-Prescription Medications

Facts: Non-prescription medications:

- May contain alcohol.
- May contain sugar.
- May contain more than one active ingredient.
- May have side effects.
- May cause interactions with food, alcohol and drugs.
- May interact with other drugs even if not taken at the same time.
- May legally require the pharmacist to dispense for safety reasons.
- Need to be disposed of properly if past expiry date.

Non-prescription medications, also known as over-the-counter medications, are medicines that may be sold without a prescription and without a visit to your physician. Over-the-counter medications contain medically active ingredients, and should be treated with care.

Tips to Remember:



Make sure your pharmacist, physician or nurse practitioner know about every medication you are taking, including prescriptions, over-the-counter medicines (such as aspirin), alternative products (such as Echinacea, garlic), and supplements (such as calcium).



Non-Prescription Medication	Do Not Mix With	Interactions
Ibuprofen (Advil, Motrin) Acetylsalicylic Acid (Aspirin, ASA)	High blood pressure	May further increase blood pressure.
Ibuprofen (Advil, Motrin) Acetylsalicylic Acid (Aspirin, ASA), or combination products containing ASA such as some cold and cough medications	Non-inflammatory medications (NSAIDs): Naproxen (Naprosyn), Diclofenac (Voltaren), Ibuprofen (Motrin), Indomethacin (Indocid), Ketorolac (Toradol), Celecoxib (Celebrex) Warfarin (Coumadin)	May increase risk of stomach ulceration and bleeding.
Heartburn medications: Ranitidine (Zantac), Famotidine (Pepcid)	Antifungals: Fluconazole (Diflucan), Ketoconazole (Nizoral), Itraconazole (Sporanox) Metoprolol (Lopresor), Cyclosporine (Neoral), Glyburide (Diabeta), Phenytoin (Dilantin)	May decrease medication absorption and make the medication less effective May increase medication levels and lead to toxicity.
Antacids / Laxatives: Tums, Bisacodyl (Ducolax), Senna (Senokot), Magnesium hydroxide (Milk of Magnesia, MOM), Aluminum hydroxide (Maalox, Mylanta), Multivitamin with minerals, Iron preparations, Calcium supplements	Digoxin (Lanoxin) Antifungals: Fluconazole (Diflucan), Ketoconazole (Nizoral), Itraconazole (Sporanox) Antibiotics: Ciprofloxacin (Cipro), Levofloxacin (Levaquin), Tetracycline Osteoporosis medications: Etidronate (Didrocal), Alendronate (Fosamax), Risedronate (Actonel)	May decrease medication absorption and make the medication less effective.
Bismuth subsalicylate (Pepto-Bismal)	Acetylsalicylic Acid (Aspirin, ASA), Warfarin (Coumadin), Diabetes medications Tetracycline	May increase medication side effects. May make tetracycline less effective.
Oral decongestant: Pseudoephedrine (Sudafed, Drixoral)	Digoxin (Lanoxin)	May increase risk of abnormal heart rhythm.
Pseudoephedrine (Sudafed, Drixoral), throat lozenges, cough syrup	Diabetes Mellitus	May increase blood sugar despite taking prescribed insulin medication.
Nicotine replacement products: Nicoderm, Nicotrol, Nicorette	Beta blockers: Atenolol (Tenormin), Metoprolol (Lopresor), Propranolol (Inderal)	May make the medication less effective, increase blood pressure and heart rate.
Vitamin E	Warfarin (Coumadin)	May increase risk of bleeding.
Aluminum hydroxide (Maalox, Mylanta), Vitamin K	Warfarin (Coumadin)	May decrease the effectiveness of warfarin.

Interactions with Non-Prescription Medications

Prescription Drugs & Interactions

with Herbal Remedies and Alternative Health Products

Facts: **"Natural" may not mean "safer"**

Although the trend toward herbal products is recent, some of these remedies have been around for hundreds of years. To make an informed decision when choosing herbal or natural product remedies you need to be aware of their risks and benefits. Just like drug-drug interactions, herbal or natural product-drug interactions are common. Herbs or natural product remedies may cancel, reduce or exaggerate the effect of a prescription medication.

- Herbal remedies are available without the need to see a trained professional.
- Ingredients of herbal remedies are often not precisely known.
- Mechanism of how herbal remedies work are not precisely known.
- Combining herbal remedies can be harmful because there is little information on how they interact.
- Herbal and alternative supplements do not have to meet the same standards as prescription drugs and over-the-counter medications for proof of safety and effectiveness. Information on interactions, side-effects, dosage range or other warnings may not be known.

Tips to Remember:



Never substitute prescription medication with alternative medicine products without consulting with your pharmacist, physician or nurse practitioner.



Thank you for becoming a more informed consumer.



Condition	Health Product	Do Not Mix With	Interaction
Cold & flu	Echinacea	Heart medication, antifungal medication, HIV medication, antianxiety medication, diabetes medication	May interfere with immunosuppressant therapy and blood sugar control. May also damage the liver.
Decongestant, weight loss or energy booster	Ephedra, Ephedrine, Pseudoephedrine, Ma Huang	Heart medication, blood pressure medication, glaucoma medication, thyroid medication, seizure medication	May increase heart rate and blood pressure when mixed with heart and blood pressure medications. May increase nervousness and tremor when taken with decongestants and stimulants. May increase the risk of seizures.
Migraine	Feverfew	Migraine medication, anticoagulant / blood thinner, anti-inflammatory pain medication	May raise heart rate and blood pressure, increase the effect of blood thinners. Anti-inflammatory pain medications can reduce the effect of feverfew.
High cholesterol, blood clot disorder	Garlic	Anticoagulant / blood thinner, diabetes medication, blood pressure medication	May increase the effect of blood thinners and cause a decrease in blood sugar and blood pressure
Stress, energy booster	Ginseng	Hypertension medication, anti-coagulant / blood thinner, diabetes medication, sedatives / sleeping pill	Can lead to headaches, insomnia and heart flutter. Mixing ginseng with heart or blood pressure medications may decrease blood pressure and increase heart rate. Ginseng may increase the effect of blood thinners and diabetes medications.
Osteoarthritis	Glucosamine	Diabetes medication, cancer medication	May increase insulin resistance and resistance to doxorubicin and etoposide
Blood pressure and high cholesterol	Hawthorn	Digoxin, blood pressure medication, MAOI antidepressant	May interfere with digoxin and blood pressure medications. Mixing with MAOI antidepressants may cause hypertensive crisis.
Memory	Ginkgo biloba	Migraine medication, Tylenol, anticoagulant / blood thinner, seizure medication	May increase the risk of bleeding and the risk for seizures.
Depression	St. John's wort	Blood pressure medication, antidepressant, digoxin, warfarin, HIV medication	May increase blood pressure, the risk of side effects with antidepressants. May reduce medication effects.
Insomnia / sleep disorder	Valerian	Sleeping pill / sedative, muscle relaxant, alcohol	May enhance and prolong sedative effect, increase drowsiness

Looking for Health Answers Online?

There are many websites that provide information about diseases, treatments and medications. Other sites sell health products.

Consumer Beware!

Being informed helps you make good decisions about your health. However, an Internet site may not contain all the information you need to make an informed decision. Use caution when searching for health information online - stick to reliable websites. Such as:

www.canadian-health-network.ca

(to link to more than 5,000 Internet-based resources)

www.canadapharma.org

www.medlineplus.gov

www.hc-sc.gc.ca/seniors-aines/pubs/med_matters

www.focus-alcohol.org

www.publichealthgreybruce.on.ca

Don't replace face-to-face contact with your health care provider with information from the internet. Please talk to your pharmacist, physician or nurse practitioner about the information you found - they can help you apply it to your situation.

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“Grey Bruce Community Coalition for the Prevention of Falls in Older Adults”