# FOOD/DRUG INTERACTIONS

Some medications can be affected by foods. Following some precautions can help your medicine to work better and prevent some potential side effects. This pamphlet includes only some of the potential food-drug interactions that are known. Since there are many which could not be included here, please discuss your specific medications with your health care providers.



Drinking alcohol can potentially cause problems with a variety of medications. Some of these include medications that affect blood pressure or blood sugar, as well as medicines that can cause drowsiness. Avoiding alcohol is typically recommended when taking such medication. Some additional medications for which alcohol avoidance is recommended are included in this pamphlet. You should discuss with your doctor or pharmacist if you can drink alcoholic beverages while taking your specific medications.

In this brochure, the class name of the drug is listed first, followed by the generic name with the brand name in parenthesis. Brand names represent only some examples of the medications.

### ANTIBIOTICS

### **Macrolides:** *erythromycin* (*Ery-tab,EES, EryC, others*), *clarithromycin* (*Biaxin*®)

Most types of erythromycin are best absorbed when taken on an empty stomach (1 hour before meals or 2 hours after meals). Erythromycin estolate (Ilosone®) and erythromycin ethylsuccinate (EES) are less susceptible to stomach acid, so if stomach upset occurs with these formulations, they may be taken with food. Clarithromycin should be taken with food to minimize stomach upset.

### Penicillin, ampicillin

Penicillin and Ampicillin should be taken on an empty stomach.

### Tetracycline (Sumycin®), minocycline, doxycycline Fluoroquinolones: Levofloxacin (Levoquin®), ciprofloxacin (Cipro®)

Take on an empty stomach. Avoid milk, milk products, ironcontaining products, or antacids containing calcium, magnesium, and aluminum one hour before or 2 hours after taking these medications.

#### Sulfonamides: Bactrim®, Septra®

Take on an empty stomach with a full glass of water.

### Metronidazole (Flagyl®)

Avoid alcohol. Drinking alcohol while taking this medicine may lead to flushing, headaches, nausea, vomiting, and dizziness. Avoid alcohol while taking metronidazole and for at least 3 days after finishing the drug. Avoid liquid medications which contain alcohol, such as common cough and cold preparations.

### Isoniazid (Laniazid®)

Take this medication one hour before meals, on an empty stomach. Eating foods that contain histamine, such as sauerkraut and yeast extract, while taking isoniazid can produce symptoms like facial flushing, headache, nausea, dizziness, abdominal cramps, and rash, because isoniazid inhibit's your body's breakdown of histamine.

### ACID-SUPPRESSING MEDICATIONS

Proton Pump Inhibitors: *lansoprazole* (*Prevacid*®), *omeprazole* (*Prilosec*®), *pantoprazole* (*Protonix*®), *rabeprazole* (*Aciphex*®), *esomeprazole* (*Nexium*®)

Take Aciphex, and Nexium, on an empty stomach. Prevacid, and Prilosec, should be taken at least 15 minutes prior to the morning meal for best results.

### ANTICOAGULANTS

### Warfarin (Coumadin®)

Maintain a balanced diet, as keeping a consistent level of vitamin K in your diet is important. Avoid large changes in the amounts of vitamin K-containing foods you eat. Avoid excessive use of alcohol while taking warfarin. Also, avoid taking high doses (> 400 IU/day) of vitamin E. Some of the foods high in vitamin K include the following:

| Aspargus              | Cucumber            | Scallions           |
|-----------------------|---------------------|---------------------|
| Broccoli              | (with peel on)      | Soybean/canola oils |
| Brussel Sprouts       | Endive              | Spinach             |
| Cabbage (raw)         | Fried/boiled onions | Watercress          |
| Cauliflower           | Herbal teas (Green) | Yogurt              |
| Collard/turnip greens | Kale                |                     |

### ANTIHYPERTENSIVES (Heart/Blood Pressure Medications)

For these groups of medications, it is recommended to avoid (natural) licorice. Most licorice in the US is artificial, however imported licorice candy or flavoring from Europe is often natural.

#### Nitrates: *nitroglycerin* (*Nitrostat*®, *others*)

Take oral nitrates on an empty stomach. Avoid drinking alcoholic beverages within one hour or more of taking a nitrate product. This combination can cause a drop in your blood pressure and you may feel light-headed or dizzy.

### Calcium Channel Blockers: nisoldipine (Sular®), felodipine (Plendil®), nifedipine (Adalat, CC, Procardia, XL®), amlodipine (Norvasc®), diltizem (Cardizem CD®, various), verapamil (Calan®, various)

Avoid grapefruit juice with nisoldipine and felodipine. Consult with your pharmacist or physician if you are taking any of the others; the interaction is lessened with the other drugs. Diltizem,verapamil, and amlodipine have no significant interactions with grapefruit juice.

### ACE Inhibitors: captopril (Capoten®), moexipril (Univasc®), enalapril (Vasotec®), fosinopril (Monopril®), lisinopril (Zestril®, Prinivil®) & others

Take captopril and moexipril one hour before meals, on an empty stomach. These medicines can cause your body to retain potassium. Your doctor may want you to avoid eating foods rich in potassium.

### **Potassium-sparing Diuretics:** *spironolactone (Aldactone*®), *triamterene (Dyazide*®, *Maxide*®)

These medicines can cause your body to retain potassium. Your doctor may want you to avoid eating large amounts of foods rich in potassium.

## **Potassium-depleting Diuretics:** *furosemide* (*Lasix*®), *bumetanide* (*Bumex*®), *metolazone* (*Zaroxyln*®), *hydrochlorothiazide* ("HCTZ," Hydrodiuril®)

These medicines cause your body to lose potassium and other nutrients. Your doctor may advise you to include foods rich in potassium, magnesium, and calcium in your diet, or start you on a potassium supplement. Muscle pains or cramps are a sign of low potassium, and should be reported to your doctor.

### Foods Rich in Potassium and Magnesium include:

| Apricots        | Eggnog               | Pumpkin             |
|-----------------|----------------------|---------------------|
| Avocados        | Garbanzo, lima       | Potatoes (baked)    |
| Bananas         | beans                | Raisins             |
| Beets           | Green leafy          | Tomato/tomato juice |
| Bran Cereal     | vegetables           | (V8)                |
| Brussel Sprouts | Lentils              | Wheatgerm           |
| Cantaloupe,     | Milk                 | Winter Squash       |
| honey dew       | Oranges/orange juice | Yams                |
| Dates, prunes   | Papayas              | Yogurt              |
| Dried beans     | Peanuts              | -                   |
|                 |                      |                     |

### **ANTIHYPERLIPIDEMICS** (Cholesterol-lowering Medications)

**Statins:** *atorvastatin* (*Lipitor*®), *fluvastatin* (*Lescol*®), *lovastatin* (*Mevacor*®), *pravastatin* (*Pravachol*®), *simvastatin* (*Zocor*®) Take lovastatin with the evening meal. The other statins may be taken without regard to meals. Avoid drinking grapefruit juice with atorvastatin, lovastatin, and simvastatin. Avoid alcohol, which increases the risk of liver damage, while taking any of these medications.

### Fibrates: gemfibrozil (Lopid®)

Take twice daily, 30 minutes prior to morning and evening meals.

### **Bile Acid Binders:** cholestyramine (Questran®), colestipol (Colestid®)

Due to the nature of these medications, besides lowering cholesterol, they also bind fat-soluble vitamins such vitamins A, D, E, and K. This can lead to vitamin deficiencies.Consequently, your doctor may recommend that you take certain vitamin supplements.

### Fluconazole (*Diflucan*®)

Avoid milk, milk products, iron-containing products, or antacids containing calcium, magnesium, and aluminum one hour before or 2 hours after taking these medications.

### Ketoconazole (*Nizoral*<sup>®</sup>), *Itraconazole* (*Sporanox*<sup>®</sup>)

Avoid alcohol while taking ketoconazole and for at least 3 days after finishing the drug. Drinking alcohol while taking ketoconazole may lead to flushing, headaches, nausea, vomiting, and dizziness. Take itraconazole with food. Both these medications need an acidic environment to dissolve. If antacids or proton pump inhibitors are used concomitantly, they should be given at least 2 hours after the antifungal. An alternative is to drink an acidic beverage, such as cola or orange juice, with the antifungal.

### Glyburide (Diabeta<sup>®</sup>, Micronase<sup>®</sup>), Glipizide (Glucotrol<sup>®</sup>), Glimepiride (Amaryl<sup>®</sup>), Chlorpropamide (Diabinese<sup>®</sup>)

Following your prescribed diet is important. Take each of these medications consistently at the same time each day. Limit alcohol intake; alcohol should be avoided completely if a reaction of flushing, headache, nausea, or vomiting occurs. Glipizide should be taken 30 minutes before meals for best results. Glimepiride is usually taken in the morning with breakfast.

### OTHER ORAL ANTI-DIABETIC MEDICATIONS

Acarbose (*Prandin*®),*miglitol* (*Glyset*®), *nateglinide* (*Starlix*®) Take with the first bite of food at meals. If you skip a meal, omit that dose of medications.

### Metformin (Glucophage<sup>®</sup>, Glucophage XL<sup>®</sup>)

Take with food. Glucophage XL®, is best taken with your evening meal.

### MAO INHIBITORS

### Phenelzine (Nardil®), Tranylcypromine (Parnate®),

These medications reduce your body's way of processing tyramine, and the accumulation of tyramine from the foods you eat can cause you to experience headaches, dizziness, sudden increases in blood pressure, and even irregular heart beats. It is very important to follow a diet that avoids foods containing tyramine. Wine and domestic bottled or canned beer are considered safe in moderation.

### Foods that are high in tyramine include:

| Active yeast*        | Chicken/Beef Livers* |                    |
|----------------------|----------------------|--------------------|
| Aged cheeses* (blue, | Chocolate            | Tap beer*          |
| brie, mozzarella,    | Cured meats*         | Sauerkraut         |
| parmesan)            | (sausage, pepperoni, | Sour Cream         |
| American processed   | etc.)                | Soy sauce*         |
| cheese               | Dried/smoked fish    | Yogurt             |
| Avocados             | Figs/raisins         |                    |
| Bananas              | Ginseng coffee/tea   | *Definite foods to |
| Broad (fava) beans*  | /colas               | restrict from diet |
| Caviar               | Meat tenderizers     |                    |

### ANTI-SEIZURE MEDICATIONS

### **Phenytoin** (*Dilantin*®)

Take with food. Phenytoin decreases the body's ability to absorb certain nutrients. Your pharmacist or doctor may recommend you take a calcium + vitamin D supplement. Avoid alcohol.

### **Divalproex sodium, Valproic Acid** (*Depakote*®, *Depakene*®) Take with food or milk.

### **OTHER MEDICATIONS**

### Aminophylline, theophylline (*TheoDur*<sup>®</sup>, *Slobid*<sup>®</sup>, *Theo-24*<sup>®</sup>, *Uniphyl*<sup>®</sup>, & others)

Limit caffeine to 2-3 (8oz.) cups of coffee, tea, or colas per day. The effect food has on these medications vary with the product. Avoid taking Theo-24, or Uniphyl, with meals high in fat content. Check with your pharmacist or doctor for your specific product.

### Levodopa (Dopar®, Larodopa®)

In the body, levodopa is coverted to dopamine. Vitamin B6 (pyridoxine) helps your body process the dopamine, and taking in large amounts of it can decrease the dopamine available to your body. It is not necessary to avoid foods rich in vitamin B6 altogether. Keep a balanced diet with a constant amount of vitamin B6 intake.

#### Alendronate (Fosamax®)

Take on an empty stomach (30-60 minutes before breakfast) with a full glass of water.

### **MEDICATIONS & GRAPE JUICE**

Most often, grapefruit juice increases the amount of a drug available in the body because it decreases the way a body breaks down the medication. The majority of the available published information studied double strength white grapefruit juice, not the more popular pink ("Ruby Red") grapefruit juice. Until more definitive research shows that grapefruit juice is safe with certain medicines, it is best to avoid grapefruit juice if you are taking any of the following medicines. Make sure to let your physician and pharmacist know if you regularly drink grapefruit juice.

Calcium Channel Blockers: Felodipine (*Plendil*®) nisoldipine (*Sular*®) Immunosuppressants: tacrolimus (*Prograf*®) cyclosporine<sup>4</sup> (*Sandimune*®, *Neoral*®) Cholesterol-lowering Drugs: atorvastatin (*Lipitor*®) lowertatin (*Lipitor*®)

lovastatin (*Lescol*®) simvastatin (*Zocor*®)

#### **Psychiatric Medication:**

Buspirone<sup>9</sup> (Buspar®) carbamazepine (Tegretol®) diazepam (Valium®) triazolam (Halcion®) **Miscellaneous others:** methadone (Dolophine®) sildenafil (Viagra®)

amiodarone (Pacerone®)