

## Warfarin Drug-Drug Interactions

Organized by Class, Clinical Findings, and Suggested Management§<sup>1-5</sup>

Effect on INR	Usually Avoid Combination -Try to switch to alternative agent if possible	Minimize Risk -Increase INR monitoring and a change in warfarin dose may be indicated proactively.	
<i>INCREASED INR</i> *	<p><b>Cimetidine (Tagamet<sup>®</sup>)<sup>1-4</sup></b></p> <p><b>Metronidazole (Flagyl<sup>®</sup>)<sup>1,3,4</sup></b>  <b>Sulfinpyrazone (Anturane<sup>®</sup>)<sup>1,2,3</sup></b>  <b>Tolmetin (Tolectin<sup>®</sup>)<sup>1,2,4</sup></b></p> <p><b>Aspirin<sup>1</sup> (Bayer<sup>®</sup>, others)<sup>1,4</sup></b>  <b>Diclofenac (Voltaren<sup>®</sup>)<sup>1,2,4</sup></b>  <b>Diflunisal (Dolobid<sup>®</sup>)<sup>1</sup></b>  <b>Etodolac (Lodine<sup>®</sup>)<sup>1,2,4</sup></b>  <b>Fenoprofen (Nalfon<sup>®</sup>)<sup>1,2,4</sup></b>  <b>Ibuprofen (Advil<sup>®</sup>, Motrin<sup>®</sup>)<sup>1,2,4</sup></b>  <b>Indomethacin (Indocin<sup>®</sup>)<sup>1,2,4</sup></b>  <b>Ketorolac (Toradol<sup>®</sup>)<sup>2</sup></b>  <b>Meclofenamate (Ponstel<sup>®</sup>)<sup>1</sup></b>  <b>Nabumetone (Relafen<sup>®</sup>)<sup>1,2,4</sup></b>  <b>Naproxen (Aleve<sup>®</sup>)<sup>1,2,4</sup></b>  <b>Piroxicam (Feldene<sup>®</sup>)<sup>1,2,4</sup></b>  <b>Sulindac (Clinoril<sup>®</sup>)<sup>1,2,4</sup></b></p> <p><b>Bromfenac (Duract, Xibrom<sup>™</sup>)<sup>1,4</sup></b></p> <p><b>Oral Contraceptives<sup>1</sup></b></p> <p><b>Danazol (Danocrine<sup>®</sup>)<sup>1</sup></b>  <b>Oxymetholone (Anadrol<sup>®</sup>)<sup>1</sup></b></p> <p><b>Disulfiram (Antabuse<sup>®</sup>)<sup>1</sup></b></p> <p><b>Gingko Bilboa<sup>1,3</sup></b></p>	<p><b>Levothyroxine (Levothroid<sup>®</sup>, Synthroid<sup>®</sup>)<sup>1,2,4</sup></b>  <b>Liothyronine (Cytomel<sup>®</sup>)<sup>2</sup></b>  <b>Liotrix (Thyrolar<sup>®</sup>)<sup>2</sup></b></p> <p><b>Aminoglycosides<sup>1,4</sup></b>  <b>Sulfamethizole<sup>1,4</sup></b>  <b>Trimethoprim-sulfamethoxazole (Septra<sup>®</sup>)<sup>1,3,4</sup></b>  <b>Isoniazid (Nydravid<sup>®</sup>)<sup>1,4</sup></b>  <b>Ciprofloxacin (Cipro<sup>®</sup>)<sup>1,4</sup></b>  <b>Gatifloxacin (Tequin<sup>®</sup>)<sup>1^</sup></b>  <b>Levofloxacin (Levaquin<sup>®</sup>)<sup>1,4^</sup></b>  <b>Moxifloxacin (Avelox<sup>®</sup>)<sup>1^</sup></b>  <b>Norfloxacin (Noroxin<sup>®</sup>)<sup>1,4</sup></b>  <b>Ofloxacin (Floxin<sup>®</sup>, Ocuflor<sup>®</sup>)<sup>1,4</sup></b></p> <p><b>Macrolides<sup>1,4</sup></b>  <b>Troleandomycin (Tao<sup>®</sup>)<sup>1,4</sup></b></p> <p><b>Chloramphenicol (Chloromycetin<sup>®</sup>)<sup>1,4</sup></b></p> <p><b>Doxycycline<sup>1,4</sup></b></p> <p><b>Cefamandole<sup>1</sup></b>  <b>Cefazolin (Ancef<sup>®</sup>)<sup>1,4</sup></b>  <b>Cefmetazole<sup>1</sup></b>  <b>Cefoperazone<sup>1</sup></b>  <b>Cefotetan (Cefotan<sup>®</sup>)<sup>1,4</sup></b>  <b>Cefoxitin (Mefoxin<sup>®</sup>)<sup>1,4</sup></b>  <b>Ceftriaxone (Rocephin<sup>®</sup>)<sup>1,4</sup></b></p> <p><b>Fluconazole (Diflucan<sup>®</sup>)<sup>1,3,4</sup></b>  <b>Itraconazole (Sporanox<sup>®</sup>)<sup>1,4</sup></b>  <b>Ketoconazole (Nizoral<sup>®</sup>)<sup>1,4</sup></b>  <b>Voriconazole (VFEND<sup>®</sup>)<sup>1,3</sup></b></p> <p><b>Amiodarone (Cordarone<sup>®</sup>)<sup>1,3,4</sup></b>  <b>Heparin<sup>1,4</sup></b>  <b>Propafenone<sup>1</sup> (Rythmol<sup>®</sup>)<sup>1</sup></b>  <b>Quinidine (Quinaglate<sup>®</sup>, Dura-Tab<sup>®</sup>)<sup>1,4</sup></b></p>	<p><b>Allopurinol (Aloprim<sup>®</sup>, Zyloprim<sup>®</sup>)<sup>1,4</sup></b></p> <p><b>Celecoxib (Celebrex<sup>®</sup>)<sup>1,5^</sup></b></p> <p><b>Choral Hydrate<sup>1</sup></b>  <b>Acute ethanol consumption<sup>1</sup></b></p> <p><b>5-Fluorouracil (Adrucil<sup>®</sup>, Fluoroplex<sup>®</sup>)<sup>1</sup></b>  <b>Gemcitabine (Gemzar<sup>®</sup>)<sup>1</sup></b></p> <p><b>Fluvoxamine (Luvox<sup>®</sup>)<sup>1-4</sup></b>  <b>Fluoxetine (Prozac<sup>®</sup>, Sarafem<sup>®</sup>)<sup>1,2,4</sup></b>  <b>Sertraline (Zoloft<sup>®</sup>)<sup>1,2,4</sup></b>  <b>Paroxetine (Paxil<sup>®</sup>)<sup>1,2,4</sup></b></p> <p><b>Danshen<sup>1,3</sup></b>  <b>St. John's Wort<sup>1,3</sup></b>  <b>Vitamin E<sup>1,3</sup></b></p> <p><b>Glucagon (GlucaGen<sup>®</sup>)<sup>1</sup></b></p> <p><b>Glyburide (DiaBeta<sup>®</sup>)<sup>1</sup></b></p> <p><b>Fenofibrate (Tricor<sup>®</sup>)<sup>1,4</sup></b>  <b>Lovastatin (Mevacor<sup>®</sup>, Altacor<sup>®</sup>)<sup>1,4</sup></b></p> <p><b>Phenytoin (Dilantin<sup>®</sup>, Phenytek<sup>®</sup>)<sup>1,3,4</sup></b></p> <p><b>Acetaminophen (Tylenol<sup>®</sup>)<sup>1,4</sup></b>  <b>Propoxyphene (Darvon<sup>®</sup>)<sup>1,4</sup></b></p> <p><b>Zafirlukast (Accolate<sup>®</sup>)<sup>1,4</sup></b></p>

\* Increased INR may be observed in patients already stabilized on warfarin. Days may be required to observe the maximum change in INR when interacting drugs are added to an already therapeutic warfarin regimen. Consult Hansten and Horn's Drug Interactions Analysis and Management for more detailed instructions for each interaction.

§ This is a partial drug interaction list and does not represent the entire spectrum of possible interactions which may affect patient care. If in doubt, please consult reputable drug information resources.\

^ No change in warfarin dose needed initially. Increase INR monitoring. Rated level 4(minor drug interaction) in Hansten and Horn's Drug Interactions Analysis and Management

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Organized by Class, Clinical Findings, and Suggested Management<sup>§1-5</sup>

Effect on INR	Usually Avoid Combination -Try to switch to alternative agent if possible	Minimize Risk -Increase INR monitoring and a change in warfarin dose may be indicated proactively.	
<i>DECREASED INR</i>	<b>Colestipol (Colestid<sup>®</sup>)<sup>1</sup></b>  <b>Furosemide (Lasix<sup>®</sup>)<sup>1,4</sup></b>  <b>Phenobarbital (Luminal<sup>®</sup>)<sup>1,4</sup></b>  <b>Rifampin (Rifadin<sup>®</sup>)<sup>1,3,4</sup></b>  <b>Torseamide (Demadex<sup>®</sup>)<sup>1,4</sup></b>	<b>Aminoglutethimide (Cytadren<sup>®</sup>)<sup>1</sup></b> <b>Mercaptopurine (Purinethol<sup>®</sup>)<sup>1,4</sup></b> <b>Mitotane (Lysodren<sup>®</sup>)<sup>1</sup></b> <b>Propylthiouracil<sup>1</sup></b>  <b>Amobarbital (Amytal<sup>®</sup>)<sup>2</sup></b> <b>Butabarbital (Busodium<sup>®</sup>, Butisol<sup>®</sup>)<sup>2,3</sup></b> <b>Secobarbital (Seconal<sup>®</sup>)<sup>2,3</sup></b>  <b>Carbamazepine (Carbatrol<sup>®</sup>, Tegretol<sup>®</sup>)<sup>1,3,4</sup></b>  <b>Cholestyramine (Questran<sup>®</sup>)<sup>1,3,4</sup></b> <b>Mesalamine (Asacol<sup>®</sup>, Pentasa<sup>®</sup>)<sup>1,4</sup></b>	<b>Azathioprine (Azasan<sup>®</sup>, Imuran<sup>®</sup>)<sup>1</sup></b> <b>Cyclophosphamide (Cytoxan<sup>®</sup>)<sup>1,4</sup></b>  <b>Chronic ethanol consumption<sup>1</sup></b>  <b>Griseofulvin (Grifulvin V<sup>®</sup>)<sup>1,4</sup></b> <b>Miconazole (Lotrimin<sup>®</sup>, Monistat<sup>®</sup>)<sup>1,4</sup></b>  <b>Methimazole (Tapazole<sup>®</sup>)<sup>1,4</sup></b>  <b>Nafcillin (Nallpen<sup>®</sup>, Unipen<sup>®</sup>)<sup>1,4</sup></b>  <b>Sucralfate (Carafate<sup>®</sup>)<sup>1</sup></b>  <b>Vitamin C<sup>1</sup></b> <b>Vitamin K<sup>1</sup></b>

References:

1. Hansten P, Horn J. Hansten and Horn's Drug Interactions Analysis and Management. Facts and Comparisons publishing group. Wolters Kluwer Health, Inc., October 2004.
2. [www.pharmacistsletter.com](http://www.pharmacistsletter.com)- Clinically Important Drug Interactions Encountered in Ambulatory and Community Pharmacy Practices. Detail-Document # 200601. June 2004.
3. Greenblatt DJ, von Moltke LL. Interaction of Warfarin With Drugs, Natural Substances, and Foods. J Clin Pharmacol 2005;45:127-132.
4. <http://online.lexi.com/crlsql/servlet/crlonline> Lexi-Comp online. Accessed on 10-18-05.
5. [www.pharmacistsletter.com](http://www.pharmacistsletter.com)- Celebrex Labeling Change: Warfarin Interaction. Detail-Document # 150717. Accessed on 10-18-05.

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