DRUG INTERACTIONS WITH TOBACCO SMOKE

Many interactions between tobacco smoke and medications have been identified. Note that in most cases it is the tobacco smoke—not the nicotine—that causes these drug interactions. Tobacco smoke interacts with medications through pharmacokinetic (PK) and pharmacodynamic (PD) mechanisms. PK interactions affect the absorption, distribution, metabolism, or elimination of other drugs, potentially causing an altered pharmacologic response. The majority of PK interactions with smoking are the result of induction of hepatic cytochrome P450 enzymes (primarily CYP1A2). PD interactions alter the expected response or actions of other drugs. The amount of tobacco smoking needed to have an effect has not been established, and the assumption is that any smoker is susceptible to the nicotine—that causes these drug interactions. Tobacco smoke interacts with medications through pharmacokinetic (PK) and pharmacodynamic (PD) mechanisms. PK interactions affect the absorption, distribution, metabolism, or elimination of other drugs. The amount of tobacco smoking needed to have an effect has not been established, and the assumption is that any smoker is susceptible to tobacco smoke interactions.

### Drug/Class

<table>
<thead>
<tr>
<th>MECHANISM OF INTERACTION AND EFFECTS</th>
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<tbody>
<tr>
<td>Pharmacokinetic Interactions</td>
</tr>
<tr>
<td>Alprazolam (Xanax)</td>
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<tr>
<td>Bendamustine (Treanda)</td>
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<tr>
<td>Caffeine</td>
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<tr>
<td>Chlorpromazine (Thorazine)</td>
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<td>Clopidogrel (Plavix)</td>
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<td>Clozapine (Clozaril)</td>
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<td>Drotrecanil (Tarceva)</td>
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<td>Flecaïnidé (Tambocor)</td>
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<td>Fluvoxamine (Luvox)</td>
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<td>Haloperidol (Haldol)</td>
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<tr>
<td>Heparin</td>
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<td>Insulin, subcutaneous</td>
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<tr>
<td>Irinotecan (Camptosar)</td>
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<td>Mexiletine (Mexitil)</td>
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<td>Olanzapine (Zyprexa)</td>
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<td>Propranolol (Inderal)</td>
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<td>Ropinirole (Requip)</td>
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<td>Tacrine (Cognex)</td>
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<tr>
<td>Theophylline (Theo Dur, etc.)</td>
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<tr>
<td>Tricyclic antidepressants (e.g., imipramine, nortriptyline)</td>
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<td>Tizanidine (Zanaflex)</td>
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<td>Warfarin</td>
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<td>Pharmacodynamic Interactions</td>
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<tr>
<td>Benzodiazepines (diazepam, clorazepate)</td>
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<tr>
<td>Beta-blockers</td>
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<td>Corticosteroids, inhaled</td>
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<td>Hormonal contraceptives</td>
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<tr>
<td>Opioids (propoxyphene, pentazocine)</td>
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