



# PHARMACOTHERAPY

## *Virginia Health Practitioners' Intervention Program*

The Health Practitioners' Intervention Program is a strong proponent of appropriate pharmacotherapy as an adjunct to psychosocial treatment for substance use disorders. For recovering health care professionals who are returning to the stresses of practice and possible narcotic access, such pharmacotherapy can serve as a valuable tool for relapse prevention. In highly motivated groups, such as recovering health practitioners who are willing to participate in direct observation administration, pharmacotherapy can be effective in helping to prevent relapse.

### **Disulfiram (Antabuse®)**

1. Blocks metabolism of alcohol by inhibiting enzymes in the aldehyde dehydrogenase family, one of which acetaldehyde dehydrogenase, catalyzes the oxidation of acetaldehyde to acetic acid. Thus, if alcohol is ingested, acetaldehyde levels rise causing the Disulfiram-Alcohol reaction.
2. Reaction: flushing, weakness, nausea/vomiting, tachycardia, hypotension, headache, dyspnea
3. Acute emergent treatment: supportive (fluids, oxygen), large doses of intravenous Vitamin C (1 gram), ephedrine sulfate as needed
4. Possible side effects: hepatotoxicity, neuropathy, metallic taste, psychosis
5. Contraindication: cardiac disease, hepatitis or impaired hepatic function, esophageal varices, pregnancy, breastfeeding, impulsivity, psychotic disorders
6. Certain drugs have Disulfiram-like activity:
  - Metronidazole (Flagyl®)
  - Calcium carbimide (Temposil®)
  - Hypoglycemics (ex: glyburide, tolbutamide, chlorpropamide and other sulfonureas)
  - Antifungals: ketoconazole, griseofulvin and others
  - Antimalarial quinacrine
7. Drug interactions:
  - Reduced clearance of diazepam (Valium®) and chlordiazepoxide (Librium®)
  - Reduced clearance of desipramine and imipramine
  - Reduced clearance of phenytoin and warfarin
  - Increased CNS side effects with isoniazid
8. Foods and products containing alcohol must be avoided. (ex: mouthwash with alcohol, cold and cough preparations with alcohol, some flavoring extracts, wine vinegars); Do not use alcohol containing products on skin.
9. Dosage: 250 mg/daily (≥65 years use 125 mg/daily)
10. To avoid reaction, alcohol should not be consumed for at least 2 weeks from the time Disulfiram is last ingested. Renewed acetaldehyde dehydrogenase enzyme activity requires the synthesis of new enzyme.





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11. Liver function tests are recommended before treatment and every 3 months thereafter.
12. In past years, it was thought advisable to have a patient undergo a supervised alcohol-Antabuse reaction. WE DO NOT RECOMMEND THAT THIS BE DONE. HPIP **DOES NOT** ENDORSE OR REQUIRE THIS PROCEDURE.
13. Should not be used during pregnancy

#### **Disulfiram: Initiation of Treatment**

1. Physician assessment: Client must be medically cleared for use of disulfiram (Antabuse®) and must have ongoing medical oversight of disulfiram (Antabuse®) treatment by the prescribing physician
2. No medical/psychiatric contraindications
3. Liver function tests are recommended before treatment and every 3 months thereafter
4. Must have completed detoxification
5. No recent alcohol use
6. Treatment duration: determined in conjunction with treatment providers/physician
7. Patients should carry Disulfiram Identification Card stating that he/she is taking Disulfiram and describing reaction

