

IN GOOD HEALTH

A Publication Compiled by the Clinical Pharmacy Team of



Health Solutions

PHARMACY BENEFITS MANAGEMENT

ALCOHOL AWARENESS


Alcoholism or alcohol dependence is a chronic, progressive disease characterized by four main symptoms: craving (a need or urge to drink), loss of control (inability to stop drinking once started), physical dependence (presence of withdrawal symptoms), and tolerance (need for greater amounts for satisfaction). Alcohol abuse occurs when someone drinks too much or too often, but is not physically dependent on alcohol. In the United States, there are 17.6 million people that are alcohol dependent or abuse alcohol. That is equivalent to roughly 1 in 12 Americans. After smoking and obesity, alcohol use is the third leading cause of preventable death and leads to 85,000 deaths yearly. Alcohol problems are more common in young adults (18-29 years old), men, and lower income individuals. Compared to white Americans, the prevalence of alcoholism is less in African and Asian Americans and more in Native and Hispanic Americans.

Alcohol addiction/dependence occurs slowly as alcohol changes the balance of brain neurotransmitters including opiates, GABA, glutamate, serotonin, and dopamine. The depletion or increase of these chemical levels leads to alcohol cravings to avoid negative feelings or reestablish positive feelings. For example, increasing opiate levels leads to a euphoric effect while altered GABA levels lead to sedative and anxiolytic effects. Other causes of alcoholism include genetics, family history, sex, starting to drink at a young age (16 or younger), emotional disorders (i.e. anxiety, depression, ADHD), and lifestyle factors (i.e. stress level, availability of alcohol, social environment).

Symptoms of alcoholism include denial of a drinking problem, drinking alone or in secret, inability to limit the amount consumed, blacking out or forgetting conversations or commitments, being annoyed if a drinking ritual is missed (such as drinking before, during, or after dinner), having a need or compulsion to drink, irritability as the normal drinking time nears particularly if alcohol is not available, hiding alcohol or keeping it in unlikely places, an increased number of drinks to feel effects, experiencing withdrawal effects (i.e. nausea, shaking, sweating, vomiting, agitation, headache, seizures, anxiety, visual and auditory hallucinations), having problems with relationships/employment/finances/legal, losing interest in hobbies or activities previously enjoyed, not meeting work/school/family responsibilities, having drinking-related medical conditions, drunk-driving arrests and car crashes, and gulping drinks, ordering doubles, or intentionally becoming intoxicated to feel normal or good.

The diagnosis of alcoholism is difficult since most patients deny having a problem. Therefore, a physician may not know to screen for alcoholism. The primary method of diagnosis is through patient history and includes screening tests using a standardized questionnaire. Blood tests are not useful for diagnosis of alcoholism. However, some tests may show complications of alcoholism such as liver damage, reduced testosterone levels in men, increased red blood cell size, and other chemical abnormalities.

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There are numerous complications of alcoholism. Chronic, excessive alcohol use can result in many health related complications such as fatigue, short-term memory loss, weakness or paralysis of the eye muscles, liver disorders, gastrointestinal problems, diabetes, sexual dysfunction, menstrual irregularities, cardiovascular problems, bone loss, birth defects, increased risk of cancer, and neurological complications. Additionally, social complications are common including domestic abuse and divorce, increased incidence of suicide and murder, poor work or school performance, and increased likelihood of DUI arrests or fatal car accidents.

Currently there is no cure for alcoholism, but treatment is available. For most people with alcoholism, abstinence is the safest course to avoid relapse. Treatment includes a combination of counseling, interventions, detoxification and withdrawal, support groups (i.e. Alcoholics Anonymous), medication therapy, and lifestyle changes (i.e. removing alcohol from the home and avoiding bars or places with pressure to drink). Withdrawal symptom treatment includes benzodiazepines primarily; however, other medications such as beta-blockers, anticonvulsants, clonidine, and phenothiazines have also been used. There are three medications approved to treat alcohol dependence: disulfiram, naltrexone, and acamprosate. These medications help reduce drinking, avoid relapse, and achieve and maintain abstinence.

1. Disulfiram (Antabuse®)

- a. Mechanism of action – Inhibits aldehyde dehydrogenase leading to acetaldehyde accumulation causing nausea, flushing, and hypotension when exposed to alcohol.
- b. Adult Dosage – 250mg by mouth daily. Do not take if alcohol has been consumed within the last 12 hours.
- c. Side Effects – drowsiness, headache, acne, metallic/garlic taste.

2. Naltrexone (ReVia®, Vivitrol®)

- a. Mechanism of action – Opiate antagonist, blocks receptors to decrease cravings.
- b. Adult Dosage – 50mg by mouth daily or 380mg by intramuscular injection every month into gluteal muscle alternating buttocks monthly. Should not be started until 5-7 days abstinent.
- c. Side Effects – nausea, headache, dizziness, anxiety, tiredness, trouble sleeping.

3. Acamprosate (Campral®)

- a. Mechanism of action- Unknown, thought to enhance GABA and inhibit glutamate transmission.
- b. Adult Dosage – 666mg by mouth three times a day started as soon as possible after alcohol withdrawal when abstinence is achieved. If the patient weighs less than 60kg, may need to decrease dose by 333-666mg/day. People with poor kidney function require lower doses.
- c. Side Effects – Diarrhea, nausea, vomiting, gas, stomach pain, anorexia, headache, drowsiness, dizziness, constipation, fatigue, weight gain/loss, muscle/joint pain, change in sexual desire, decreased sexual ability.

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Patients should be evaluated and treated for other medical conditions closely linked with alcoholism such as bipolar disorder, panic or anxiety disorders, depression, social phobia, posttraumatic stress disorder, and others. Alcoholism often leads to a poor diet and folate deficiency. Supplementing with a multivitamin and encouraging good nutrition including plenty of fruits and vegetables is important.

There are numerous national and local organizations available to assist patients with alcohol problems and their family members.

- The **National Drug and Alcohol Treatment Referral Routing Service** offers information on substance abuse treatment, local treatment referral information in specific states, and printed material on alcohol and other drugs. They can be reached at **1-800-662-HELP (4357)**.
- **Alcoholics Anonymous** can be reached at www.aa.org, www.alcoholics-anonymous.org, or 212-870-3400 (There is no 800 number available). Additionally, local sites are often listed in the phone book.
- **Al-Anon/Alateen** can offer assistance to family and friends of people with alcoholism. They can be reached at www.al-anon.alateen.org or **1-888-4AL-ANON (1-888-425-2666)**.