

Alcohol Use Disorder in Adults: Information for Physicians



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Summary: Alcohol use problems are common in all healthcare settings. In primary care settings, it is recommended to screen all patients for alcohol use problems using brief 1-3 question screeners. If positive, then ask further about positive harms. Use a motivational interviewing approach, which focuses on "connection before direction", i.e. empathy and validation for the patient, as opposed to starting with telling the patient what to do.

Epidemiology

Prevalence

- Alcohol is by far the most common drug used by Canadians.
- At least 20% of drinkers consume above Canada's Low-Risk Alcohol Drinking Guidelines.
- In 2016, 19.0% of Canadians aged 12 and older (roughly 5.8 million people) reported alcohol consumption that classified them as heavy drinkers.

How Much Alcohol is Unhealthy?

In 2018, the Canadian Centre on Substance Use and Addiction had established "low-risk drinking guidelines", with a threshold of:

- 10 standard drinks per week for women (with no more than 2 drinks a day on most days) or
- 15 standard drinks a week for men (with no more than 3 drinks a day on most days)

In 2023, the Canadian Centre on Substance Use and Addiction (CCSAA) released updated "low-risk drinking guidelines", with a lower threshold of:

- >2 standard drinks per week is associated with increased health risks,
- 3-6 standard drinks per week should be considered "moderate risk", and
- >7 drinks per week is considered "increasingly high risk".
- Recommendation based on a risk threshold of 1 in 100
 - No more than 6 standard drinks per week for everyone.
 - "Drinking less is better."

Signs/Symptoms

Medical problems

- Frequent trauma or accidents
- GI problems such as epigastric distress, diarrhea, weight changes
- Sexual problems

Psychiatric

- Mood or anxiety problems

Impaired function

- Decreased social function
- Changes in friends, with decreased involvement with old friends and more involvement with new friends who use drugs, along with reluctance to introduce parents to new friends
- Decreased function at home
- Decreased function at school
- Skipping classes and missing days
- Worsening grades
- Decreased function at work
- Frequent absences

Screening

Who to screen?

- All adults (18+) should be screened for unhealthy alcohol use (USPSTF, 2018).

How to screen?

- Consider alcohol screening questionnaires (e.g. AUDIT-C) as part of your screening package that is completed by your patient while in the waiting room, and/or
- Consider your staff ask about alcohol use as part of the initial assessment, while doing weight and vitals.

What about the CAGE?

- The USPSTF does not recommend the well-known Cut down, Annoyed, Guilty, Eye-opener (CAGE) tool because it detects only alcohol dependence and not the full spectrum of unhealthy alcohol use.

History / Interviewing Questions

Ask about the quantity:

- Do you sometimes drink beer, wine or other alcoholic beverages?
- If so, how many times in the past year have you had...
 - 3-6 standard drinks per week? ("moderate risk") (CCSAA, 2023)
 - >7 drinks per week is ("increasingly high risk") (CCSAA, 2023)

Ask about problems, which indicate possible alcohol use disorder:

- In the past year, has alcohol caused any problems with
 - Physical harm, e.g. drinking and driving?
 - Relationships?
 - Problems at work?
 - Legal problems?

- If YES to one or more, then there might be alcohol abuse.

Ask more about possible alcohol dependence:

- In the past year, have you...
 - Had troubles cutting down or stopping drinking?
 - Needed more alcohol to get the same effect? (tolerance)
 - Had withdrawal symptoms, i.e. tremor, sweating, nausea when you try to cut back?
 - Kept drinking despite the problems it has caused you?
 - Neglected other parts of your life due to the drinking?
- If YES to three or more, your patient may have alcohol dependence.

DSM-5

DSM-5 Alcohol Use Disorder

Criterion A: A problematic pattern of use, as manifested by at least TWO of the following:

1. Alcohol is often taken in larger amounts or over a longer period than was intended.
2. There is a persistent desire or unsuccessful efforts to cut down or control alcohol use.
3. A great deal of time is spent in activities necessary to obtain alcohol, use alcohol or recover from its effects.
4. Craving or a strong desire or urge to use alcohol.
5. Recurrent alcohol use resulting in a failure to fulfill major role obligations at work, school or home.
6. Continued alcohol use despite having recurrent social or interpersonal problems.
7. Social, occupational or recreational activities are given up or reduced because of alcohol use.
8. Recurrent alcohol use in situations in which it is physically hazardous.
9. Alcohol use is continued despite knowledge of having a persistent or recurrent physical or psychological problem that is likely to have been caused or exacerbated by alcohol.
10. Tolerance, as defined by either of the following:
 - a) Increased amounts of alcohol are needed to achieve the same effect
 - b) Marked diminished effect with use of the same amount of alcohol
11. Withdrawal, as manifested by either of the following:
 - a) The characteristic withdrawal syndrome for alcohol
 - b) Alcohol (or a closely related substance such as a benzodiazepine) is taken to relieve or avoid withdrawal symptoms

DSM-5 Alcohol Intoxication

- Recent use of substance
 - Clinically significant maladaptive behavioural or psychological changes that developed during, or shortly after use (inappropriate sexual or aggressive behaviour, mood lability, impaired judgement)
 - One (or more) of the following signs or symptoms developing during, or shortly after use
 - Slurred speech
 - Incoordination
 - Unsteady gait
 - Nystagmus
 - Impairment in cognition (e.g. attention, memory)
 - Stupor or coma
- Signs or symptoms not attributable to another medical condition, mental disorder, including intoxication with another substance.

Differential Diagnosis (DDx) and Comorbidity

Screening for comorbid conditions is helpful as this provides another point for possible intervention.

- Mood and anxiety disorders
 - Mood and anxiety problems may result from alcohol use; conversely, mood and anxiety disorders may come first, and alcohol use may be an attempt to self-medicate.
- Trauma and adverse childhood experiences (ACE)
 - Individuals with trauma / ACEs are at increased risk of substance use
- Attention deficit hyperactivity disorder (ADHD)
 - Individuals with prior ADHD are at higher risk of developing alcohol substance use; unfortunately, alcohol does not improve core symptoms of ADHD.
- Bipolar disorder
 - Substance use disorders are seen in 60% of those with bipolar disorder (Chengappa, 2000).

Physical Exam (Px)

Vitals

- Labile blood pressure, tachycardia (suggestive of alcohol withdrawal)

Signs of alcohol abuse

- Mild tremor
- Odor of alcohol on breath
- Enlarged, tender liver
- “Aftershave/mouthwash” syndrome (to mask the odor of alcohol)
- Signs of Liver failure
 - Jaundice
 - Scleral icterus
 - Palmar erythema
 - Spider angioma
 - Caput medusa
 - Ascites
 - Easy bruising
 - Gynecomastia
 - Asterixis

Signs of concurrent substance abuse

- Nasal irritation (suggestive of cocaine insufflation)
- Conjunctival irritation (suggestive of exposure to marijuana smoke)
- Odor of marijuana on clothing

Investigations

Common investigations include:

- Urine drug screening for cannabis use
- CBC (anemia, thrombocytopenia)
- GGT, MCV, carbohydrate-deficient transferrin for alcohol use
- Liver indices for liver impairment
 - AST:ALT approaches two with alcoholism
 - INR (decreased clotting factor production by liver)
- BUN/CR for renal impairment

Management

Address any comorbid conditions

- Is there a mood/anxiety disorder? Refer for treatment.
- Is there comorbid ADHD? Ensure ADHD is managed, e.g. workplace accommodations; ADHD medications.

Work with Families and Caregivers

- Validate whatever support the family/caregiver has provided, e.g. Clinician: "I am so grateful that you have been a support for your (loved one). If not for your support, I suspect things would be even worse."
- Encourage families and carers to be involved; the individual with alcohol use needs the support of other family members and carers, e.g. Clinician: "Your ongoing support will make a big difference for your family member."
- Ask about family's need for support, e.g. "How can I support you, so that you can support your loved one?"
- Provide written and verbal information on alcohol misuse and its management, including how families and carers can support the service user.

Psychotherapy

- Motivational enhancement therapy / motivational interviewing
- Cognitive behaviour therapy (CBT)
- Marital and family therapy

[More...](#)

Medication Management of Alcohol Abuse

Medications for withdrawal include

- Diazepam (Valium) for alcohol withdrawal
 - Start at 5-20 mg po q 1-4 hr up to three times daily
 - Is the patient delirious? If so, then start 60 mg immediately.
- Chlordiazepoxide (Librium) for alcohol withdrawal
 - Start at 15-100 mg po daily, max 300 mg daily

Medications for recovery include

- Disulfiram (Antabuse), supervised oral disulfiram may be used to prevent relapse but patients must be informed that this is a treatment requiring complete abstinence and be clear about the dangers of taking alcohol with it.
 - After 72-hrs of being alcohol free, start at 125 mg po q AM, then increase to 250 mg daily, max 500 mg daily
 - Labs: Order hepatic profile at baseline, then q monthly x 2-months, then q 3-6 months
- Naltrexone (ReVia)
 - Start at 25 mg po daily x 2-days, then if no withdrawal symptoms, increase to 50 mg daily
 - Labs: Urine opioid screen, CBC, hepatic profile (AST, ALT, GGT, bilirubin), periodic hepatitis screen
- Acamprosate (Campral), recommended in newly detoxified dependent patients as an adjunct to psychosocial interventions
 - Target dosage 666 mg daily three times a day
- Topiramate (Topamax)
 - Advise female patients to use contraception, due to risk of fetal harm if patient becomes pregnant
 - Dosage
 - Start at 50 mg once daily
 - Increase to therapeutic target of 50 mg bid over several weeks.

For medication dosage table

- BC Centre for Substance Use has an excellent table here <https://www.bccsu.ca/wp-content...>

Is there Wernicke-Korsakoff syndrome?

- Thiamine 100 mg po (or IM) x 3-days (to be given before the patient resumes eating well)

Are there depressive symptoms persisting for more than two weeks following treatment for alcohol dependence?

- Selective serotonin reuptake inhibitor (SSRI) for mood/anxiety problems
- Bupropion SR (Zyban / Wellbutrin) for smoking cessation
- Start at 150 mg daily x 2-4 days, then increase to 150 mg po bid, max 300-450 mg divided bid
- Monitor after a few weeks

Reporting Obligations

Does the patient have children in their care? Are you concerned about neglect or abuse (including emotional, e.g. parent yelling at children)? If you have concerns, inform the child welfare service (such as Children's Aid Society in Ontario).

For driving: In most jurisdictions, the law requires that physicians report patients who, in the opinion of the physician, may be unfit to drive for medical reasons.

View CMA website for [links to provincial and territorial forms...](#)

[More...](#)

When and Where to Refer

Is the patient willing to seek help?

- Discuss various options for addiction services, and make the appointment for the addiction service with the patient, during the office visit.

Are there alcohol use issues plus mental health symptoms?

- Consider referring to addictions / mental health services

Community Resources

Self-help groups

- Alcoholics Anonymous

Resources

Pocket Guide for Alcohol Screening and Brief Intervention

<https://pubs.niaaa.nih.gov/publications/practitioner/PocketGuide/pocket.pdf>

1. Which of the following may be signs of alcohol use disorder on physical exam?

- Tremor
- Enlarged, tender liver
- Jaundice
- Ascites
- All of the above

2. Alcohol use disorder can be managed in the following ways EXCEPT:

- Psychotherapy
- Working with families and caregivers
- Using disulfiram (Antabuse) in a patient consuming moderate quantities of alcohol.
- Using diazepam (Valium) for alcohol withdrawal.

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Written by Dr's Michael Cheng, FRCP(C), Psychiatrist, University of Ottawa, and Dr. M. St-Jean, MD, CCFP, University of Ottawa.

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