

# ALCOHOL & CANCER

## Frequently Asked Questions

### Does drinking alcohol really cause cancer?

Yes, alcohol consumption has been definitively linked to an increased risk of several types of cancer.


Alcohol is a carcinogen, which means it is known to cause cancer in humans. In Canada, it's estimated that drinking alcohol contributes to roughly 7,000 cases of cancer each year.<sup>1</sup>

This does not mean that everyone who drinks alcohol will develop cancer. However, the chances of developing cancer is higher among people who drink alcohol, especially among those who drink more than two standard drinks per week. Drinking two to three drinks a day, for instance, doubles the risk of developing cancer of the esophagus.<sup>2</sup>

### Which types of cancer are associated with alcohol consumption?

There is convincing evidence that drinking alcohol increases the risk of many types of cancers, including cancers of the breast, colon, rectum, mouth and throat (pharynx), liver, esophagus (food pipe) and larynx (voice box).<sup>3</sup>

There is limited but suggestive evidence that alcohol consumption might increase the risk of lung, pancreatic and skin cancer.<sup>4</sup> However, more research is still needed in this area.



Alcohol can cause **at least 7** types of cancer

### How does alcohol increase the risk of cancer?

Every alcoholic drink contains ethanol (ethyl alcohol). When we drink alcohol, our bodies break down the ethanol into acetaldehyde and other chemicals. Acetaldehyde damages DNA and stops our bodies from repairing the damage. That damage over time may be responsible for cancer.

Alcohol use can also affect the risk of cancer in other ways by:

- Increasing blood levels of certain hormones such as estrogen, a risk factor for breast cancer
- Making it easier for other toxins, like those found in tobacco smoke, to pass through the mouth and into the bloodstream
- Affecting the body's ability to process and absorb important nutrients, such as folate, which are essential for cells to stay healthy
- Contributing to unwanted weight gain

### What is a standard drink?

A standard drink is a measure of the pure ethanol being consumed. It is not the total amount of liquid in a glass.

In Canada, a standard drink is any drinking containing 13.45 grams or 17.05 mL of pure alcohol. Common examples include:

- 341 ml (12 oz.) bottle of 5% alcohol beer, cider or cooler
- 142 ml (5 oz.) glass of 12% alcohol wine
- 43 ml (1.5 oz.) shot of 40% hard liquor (vodka, rum, whisky, gin, etc.)

## A standard drink means:



### Beer

341 ml (12 oz.)  
5% alcohol



### Cooler / Cider

341 ml (12 oz.)  
5% alcohol



### Wine

142 ml (5 oz.)  
12% alcohol



### Spirits

43 ml (1.5 oz.)  
40% alcohol

Remember, high alcohol content beers, coolers, cider, fortified wines and mixed drinks contain more than one standard drink.

Because alcoholic beverages are sold and served in many different sizes, it's often difficult to know how many standard drinks are being consumed.

Download our [Standard Drinks graphic](#) or check out our [drinking calculator tool](#) to find out how many standard drinks are in the drinks a person typically pours.

## How much alcohol is considered safe?

There is no safe level of alcohol consumption when it comes to cancer risk. Even small amounts of alcohol can raise the risk of certain cancers. The less alcohol a person drinks, the better.

Light-to-moderate alcohol use was previously shown to have some protective effects against heart disease, stroke and other cardiovascular diseases.<sup>5</sup> However, recent evidence has challenged these findings, suggesting that there is no safe limit of consumption, especially for cancer.

## Does the type of alcohol matter when it comes to cancer risk?

No, the type of alcohol consumed does not appear to affect cancer risk. Beer, wine and spirits all contain ethanol, which is the substance that can increase one's risk of cancer. What matters is the total amount and frequency of alcohol (or ethanol) consumed, not the type of drink.

## What are the health benefits to drinking alcohol?

You may have heard that consuming small to moderate amounts of alcohol, such as a glass of red wine a day, can be good for the heart. However, the latest evidence does not support this claim. Consuming more than two alcoholic drinks per week puts someone at moderate risk for a number of diseases like liver disease, cardiovascular disease and cancer.<sup>3</sup>

## Does drinking red wine protect against cancer?

There is no clear evidence to support the idea that drinking red wine reduces the risk of cancer.

## Are light beers a healthier choice?

Compared to regular beer, light beer generally contains fewer calories and less alcohol, but whether or not it is "healthier" depends on individual health goals.

For example, if someone is trying to reduce their calorie intake, light beer may be a better choice than regular beer because it typically contains fewer calories. According to the [Canadian Nutrient File](#), a 355 mL serving of light 4% beer (about one can) contains approximately 100-140 calories, while a regular 5% beer of the same size contains around 140-190 calories.

However, it's important to keep in mind that light beer still contains alcohol, which can increase the risk of several health problems, including cancer, liver disease and high blood pressure—especially if consumed in large amounts.

## Is it true that alcohol affects women and men differently?

Too much alcohol can take a toll on anyone's health, regardless of their sex or gender identity. However, research has shown that there are biological factors that affect the ways in which women and men process alcohol.

For example, women, compared to men, have lower levels of an enzyme (alcohol dehydrogenase) in their stomach that helps break down alcohol in the body.<sup>6</sup> Because of this, women absorb more alcohol in their bloodstream even when drinking the same amount of alcohol as men. These biological differences can cause women to experience more damage and disease at lower levels of alcohol use than men.

## What are the effects of mixing tobacco and alcohol?

Tobacco and alcohol alone each increase the risk of several cancers, but when combined the risks are even greater. People who drink and smoke are five times more at risk of developing cancers of the mouth, pharynx, larynx and esophagus compared to people who either drink alcohol or smoke tobacco alone.<sup>7</sup>

This is because alcohol can make it easier for the tissues in the mouth and throat to absorb the harmful chemicals in tobacco smoke.

## What should I do if my patient is concerned about their cancer risk?

If your patient is concerned about their cancer risk, it's important to initiate a conversation with them about their alcohol consumption and provide guidance on how to reduce their risk.

Screening and brief interventions are effective tools that health care professionals can use to identify patients who may be at risk of alcohol-related harm. They involve asking patients about their alcohol use, providing feedback on their level of risk, and offering strategies to reduce their drinking.

For specific guidance, practitioners can refer to the [BC Problem Drinking Guidelines](#) released by the Ministry of Health.

## Resources and Supports

If your patient is struggling with alcohol use and finding it difficult to stop or reduce their drinking, the following resources are available:

- [Crisis Intervention & Suicide Prevention](#): 1-800-784-2433 (1-800-SUICIDE)
- [Alcohol & Drug Information & Referral Service](#): 1-800-663-1441
- [HealthLink BC](#) or call 8-1-1 for mental health and substance use information and services
- [HeretoHelp](#): Mental health and substance use information
- [First Nations Health Authority Mental Wellness & Substance Use](#): Information for First Nations communities on mental wellness, substance use prevention and treatment, and other culturally-safe supports
- [Wellbeing by the Ministry of Mental Health & Addictions](#): Online directory on mental health and substance use information and supports
- [Kelty Mental Health Resource Centre](#): Mental health and substance use information and resources for children, youth and families

## References

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