

# Women and Alcohol:

A WOMEN'S HEALTH RESOURCE



**This resource was written by women for women to provide useful information about the effects of alcohol and the risks associated with drinking. We hope that this booklet will empower women by assisting them to make healthy and well-informed choices about their alcohol use.**

Drinking alcohol is a common social activity for many women. In fact, 76 percent of the women surveyed in the Canadian Addiction Survey reported drinking in the past year [1]. However, we don't always think about the possible risks that may be associated with drinking nor understand that those risks are different for men and for women.

There are a number of factors that can contribute to women's vulnerability to the effects of alcohol. These factors include body size and composition, age, genetics, and both previous and current life circumstances and stressors. They influence the ways in which women respond to alcohol, and can act in combination to increase risk. There are also some very specific health risks associated with heavy drinking by women.

Low risk drinking guidelines have been established to support women in making decisions about their alcohol use.

## KEY POINTS

- Alcohol is commonly used by women
- Alcohol affects women differently from men
- Low risk drinking guidelines are available for women
- Heavy drinking can lead to serious health concerns
- There are a number of factors that can lead to increased vulnerability to the effects of alcohol
- Support is available to help women make changes in their drinking

This resource will:

- present low risk drinking guidelines as they apply to women;
- describe factors influencing girls' and women's drinking;
- highlight gender-specific health considerations with regard to drinking; and
- discuss where to find support and more information for those who wish to learn more about drinking and women.

# Introduction

# Contents



1. **Low Risk Drinking**
2. **Risks of Heavy Drinking**
3. **Individual Responses to Alcohol**
4. **Considerations for Women**
5. **Supporting Someone Close to You**
6. **Resources**

# Low Risk Drinking For Women

# 1

Within Canada, a number of provinces have developed drinking guidelines designed to help both women and men determine safe consumption levels of alcohol and to monitor their drinking. These guidelines can help us minimize the health risks associated with drinking alcohol by encouraging us to be aware of:

- the amount of alcohol we consume,
- how often we drink, and
- situations when alcohol consumption increases the risk of harm.

The following guidelines are adapted from Low Risk Drinking Guidelines for British Columbia, published by The Centre for Addiction Research of BC (CAR-BC) [2].

## Low Risk Drinking Guidelines for Women

### Amount of Use

Avoid intoxication

- Do not drink more than the daily limit of 3 standard drinks (4 standard drinks for men).

### Frequency of Use

To avoid long-term harms to your health, don't exceed the weekly limit

- At least one or two days of the week should be alcohol-free.
- Have no more than 10 standard drinks per week for women (and 20 for men).

### Increased risks

There are some situations when alcohol consumption has increased risks. For example, women are advised to refrain from drinking:

- When pregnant or when planning a pregnancy;
- When using other drugs, including medications; and/or
- When driving or operating machinery.

## Self Assessment

It is important to understand that the amount of alcohol found in a standard drink is the same regardless of the type of alcoholic beverage. One standard drink = 13.6 grams or 17 ml of absolute alcohol. Each drink featured in the diagram is one standard drink.

People tend to overestimate the size of a standard drink. We also tend to underestimate how much we have had if our drink is "topped up" versus finishing one drink before having the next.

When applying the guideline about avoiding intoxication it is important to know yourself—you may become intoxicated after 2 instead of 3 drinks (as in the guideline), so 2 may be your personal limit. In the next section, we will discuss factors that influence individual vulnerability.

In addition to being mindful of the number of drinks you have on one occasion, it is important to consider the number of days that you drink in a week. It is easy to fall into a pattern of drinking every day, with no alcohol-free days.

If you feel that you are drinking more than the recommended amount, there are people who you can talk to for advice and support. Speaking with a healthcare provider such as family physician or counselor can be an important step in assessing and modifying your alcohol use. Some resources you might find helpful are listed at the end of this booklet.



One glass of beer  
341ml/12oz  
5% Alc/Vol

=



One glass of wine  
142ml/5oz  
12% Alc/Vol

=



One glass of fortified wine  
85ml/3oz  
20% Alc/Vol

=



One glass of spirits  
43ml/1.5oz  
40% Alc/Vol

=



Two glasses of cider  
142ml/5oz  
6% Alc/Vol



# Risks Of Heavy Drinking

## 2

### What is heavy drinking?

There is some uncertainty as to the definition of heavy drinking. The low risk drinking guidelines act as a starting point by clarifying what is not “low risk”.

Exceeding the amounts outlined in the guidelines can potentially lead to alcohol dependence and a wide-range of long-term health problems. Women tend to be more susceptible than men to the health problems associated with heavy drinking.

### What are the problems associated with heavy drinking?

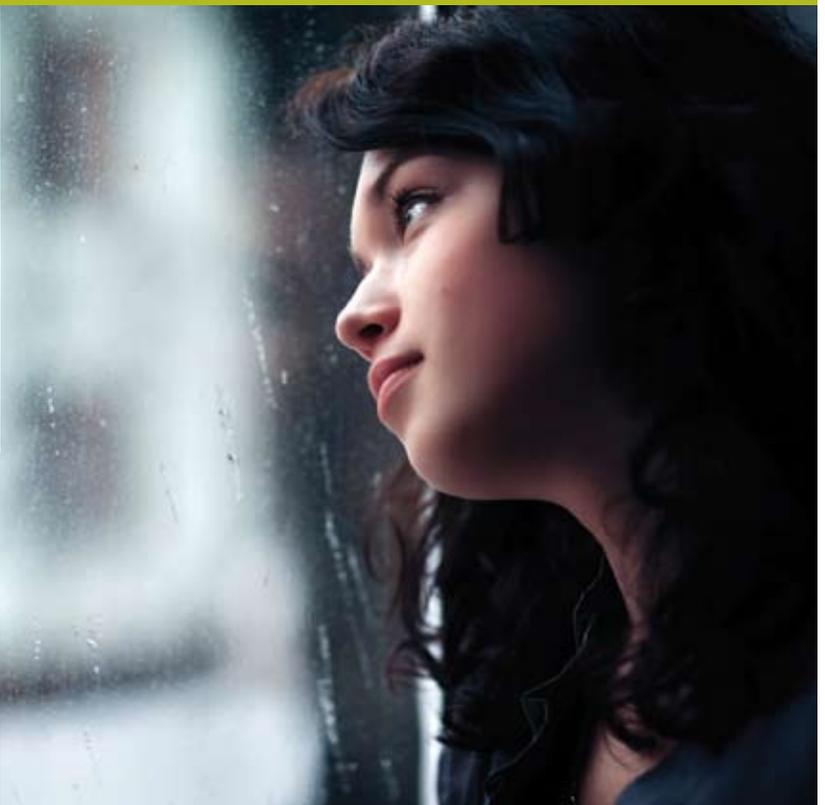
Heavy drinking among women is associated with numerous long term health problems:

- For women, heavy alcohol use has been found to significantly contribute to the development of osteoporosis [3, 4], breast cancer [5], reproductive problems [6], heart disease and stroke [7], and alcohol-induced brain damage [8]. These health problems are further complicated if you smoke or use other substances, and if you are exposed to environmental toxins [9].

- Women experience a more rapid progression to addiction or dependence on alcohol than men, described by researchers as a ‘telescoped course’ [10].
- Women are more likely than men to develop cirrhosis of the liver after a shorter period of time and with less alcohol, and as a result, are also more likely to die from cirrhosis [11].
- Women are at a greater risk of experiences of violence such as sexual assault when drinking heavily [12].
- Heavy drinking has particular risks for women who are pregnant or are planning to become pregnant. These risks are described in detail below.

Research indicates that prolonged heavy drinking can result in the development of serious health problems for women such as:

- Osteoporosis
- Breast Cancer
- Reproductive problems
- Heart disease and stroke
- Brain damage
- Addiction and liver disease



# Individual Responses To Alcohol

## 3

Low risk drinking guidelines are based on research on the average person, however the effects of alcohol vary greatly from one person to the next. Below are some factors that can influence the way you respond to alcohol:

### Being a woman

Sex differences exist in the metabolism of alcohol. These metabolic differences create significant disparities in the way in which men and women respond to alcohol. Three key mechanisms help to explain these differences:

- Women have less water in their bodies to help dilute the alcohol in their blood stream;
- Women's bodies have higher concentrations of adipose tissue which produces slower alcohol absorption in comparison to men; and
- Women's bodies have lower levels of a particular enzyme that is needed to metabolize alcohol [13].

These reasons are why drinking guidelines for women are lower than those for men.

Gendered influences also affect women's drinking. Women often report using substances

in response to negative feelings, to cope with problems or to increase confidence [14]. Frequently women are introduced to alcohol through their relationships with partners [15]. Parenting and societal expectations of mothers can add a complicated layer of shame and fear for mothers who have alcohol problems [16]. As a result, women may not access help as soon as they need to, may get help for problems other than their alcohol use, and not be referred to alcohol specific treatment.

### Experiences of violence and abuse

Past and current experiences of violence are commonly linked to women's use of alcohol and other substances. Many women identify their substance use as a way to cope with violence experienced as children and/or as adults [17]. In the case of sexual assault, women who drink to intoxication are at greater risk for this type of violence [18].



## Physical responses to alcohol

The effects of alcohol vary according to physical stature. Women of smaller stature will often experience a more intense and more rapid response to alcohol than someone of larger stature. Some women experience the effects of alcohol rapidly after having a low number of drinks. It is important for women who experience a quick response to alcohol to drink less than is recommended in the low risk drinking guidelines.

Irrespective of whether women have a quick or a slow response to alcohol, it is important that women 'listen' to their bodies and adjust their consumption levels accordingly.

## Genetics

Genetics may also have an effect on the risk of developing a drinking problem. Researchers have found that biological predispositions to heavy drinking exist for some people. It is important to be aware of how alcohol problems have developed in your own family, and at the same time recognize that even if you have a family history of alcohol-related problems, you do not necessarily develop alcohol problems. Conversely, people with no family history or genetic links may develop alcohol problems.

## Life circumstances and stressors

Heavy drinking can be precipitated by stressful events in women's lives such as coping with grief, divorce or violence. And as women strive to balance multiple roles and responsibilities, they can experience higher and more frequent

stressors than men. While a small amount of alcohol may result in short-term stress relief, drinking does not address the cause of stress. Repeated use of alcohol to reduce feelings of stress may increase anxiety levels and lead to dependence on alcohol.

## Age

As we age, our kidneys, liver, cardiovascular system and brain undergo changes. These changes make the elimination of alcohol less efficient and/or make us more sensitive to the effects of alcohol. It takes less alcohol for older women to experience the effects of alcohol, and so they should factor this in when making decisions about drinking.

There are also additional health considerations for young women who drink alcohol. For example, chronic heavy drinking, particularly during adolescence and the young adult years can dramatically compromise bone quality and may increase osteoporosis risk in women in later life [4]. Furthermore, research suggests that heavy drinking during adolescence can disrupt the natural menstrual cycle and reproductive function [19]. It is important for young women to recognize the short and long term health effects of alcohol use when making decisions about drinking.



# Considerations For Women

## 4

There are a number of other important factors for women that can influence the effects of alcohol and particular circumstances in which alcohol should be avoided.

### Medication use

Women who are taking medication should ask their doctor or pharmacist whether drinking alcohol should be avoided. Mixing medication and alcohol can alter the effect of the alcohol and/or the effect of the medication and can pose risks to health and cause injury. In particular women should be aware of the risks of using tranquilizers with alcohol. Tranquilizers are prescribed more often to women than men and can amplify the depressant effects of alcohol.

### Hunger and fatigue

Hunger increases the rate at which alcohol is absorbed into the blood stream. Fatigue is often indicative that energy supplies are low which means that the liver will not eliminate the alcohol as efficiently and may slow down the metabolism of alcohol. The depressant nature of alcohol will intensify feelings in someone who is feeling tired or stressed. Consequently, the effects of the alcohol will be experienced sooner and more intensely.

### Pregnancy

A critical factor for women to consider in relation to alcohol use is pregnancy. Drinking alcohol during pregnancy may lead to:

- Having a baby with Fetal Alcohol Spectrum Disorder (FASD);
- Having a miscarriage or stillbirth;
- Having a baby that has low birth weight; and/or
- Having a baby born prematurely.

Fetal Alcohol Spectrum Disorder describes a range of harms caused by maternal alcohol use. These harms to the child can include brain damage, vision and hearing problems, slow growth, and birth defects such as bones that are not properly formed or heart problems. The brain damage associated with FASD can mean that your child will have lifelong learning disabilities and problems with memory, reasoning and judgment.

There is no known safe amount of alcohol, at any stage of pregnancy that will completely prevent the risk of having a child with FASD. Therefore refraining from alcohol consumption during pregnancy and when planning pregnancy is the safest option. Often women drink before they are aware they are pregnant but it is important to know that it is never too late to stop drinking alcohol during pregnancy. Quitting drinking as soon as possible and looking after your health are the best ways to reduce the risk of harm to you and your fetus.

### Breastfeeding

Alcohol in breast milk may affect your baby's sleep or decrease the amount of milk your baby takes at feeding time, so it is best not to drink alcohol while breastfeeding. If you are going to have a drink that contains alcohol, it is recommended that you feed your baby first. Breastfeeding is not recommended if you drink large amounts of alcohol [12].



## SPECIAL CONSIDERATIONS

- Medication use
- Hunger and fatigue
- Pregnancy
- Breastfeeding

# Supporting Someone Close To You

## 5

If you feel that someone close to you may have a problem with alcohol, there are a number of ways that you can offer support:

- Start by asking if she would like to talk about it and find out what she feels would be most helpful.
- Don't judge her or move too quickly to solutions.
- Offer support in very practical ways such as engaging in activities that do not involve alcohol, caring for her children so that she can have some time out, or attending an appointment with her.
- Remember, ultimately it's her change to make and it is important to respect her autonomy.

All change takes time, and it is common to stop and start a number of times before making a sustained change. Knowing this, it is important to recognize small successes and offer reassurance that your support will be ongoing. By highlighting strengths and successes, family and friends can help to increase confidence and the sense that change is possible.



# Resources

## 6

If you would like to know more about alcohol use, for yourself or someone close to you, information and support is available:

### PHONE SUPPORT AND REFERRAL

#### BC NurseLine

[www.bchealthguide.org/nurseline.stm](http://www.bchealthguide.org/nurseline.stm)  
or call toll-free in BC 1-866-215-4700

#### Motherisk

Alcohol and substance use in pregnancy helpline  
1-877-327-4636  
[www.Motherisk.org](http://www.Motherisk.org)

#### Alcohol and Drug Information and Referral Service

Vancouver 604-660-9382  
Toll-free in BC 1-800-663-1441

### COMMUNITY SUPPORT ON WOMEN'S HEALTH

**Your local public health unit**  
[www.health.gov.bc.ca/socsec/](http://www.health.gov.bc.ca/socsec/)

**Local women's centre**  
[www3.telus.net/bcwomen/](http://www3.telus.net/bcwomen/)

**Support on violence issues**  
[www.bcysth.ca/](http://www.bcysth.ca/)

### COMMUNITY SUPPORT GROUPS ON ALCOHOL

#### 16 Step Groups for Women

[www.charlottekasl.com/programs.html](http://www.charlottekasl.com/programs.html)

#### Alcoholics Anonymous

[www.bcyukonaa.org/](http://www.bcyukonaa.org/)

### WEBSITES

This Women and Alcohol: A Women's Health Resource may be downloaded from:  
**Healthy Choices in Pregnancy** website  
[www.hcip-bc.org](http://www.hcip-bc.org)

Print copies of this Women and Alcohol: A Women's Health Resource may be ordered from:  
**Centre for Addictions Research of BC** website [www.carbc.ca](http://www.carbc.ca)  
Look under ActNow BC products

## Acknowledgements

This booklet was created by a collaboration of researchers, health service providers, FASD community advocates, and women with children affected by FASD. We were inspired by women asking for more general information about the effects of drinking alcohol on women's health. This booklet broadens the scope of much of the current FASD prevention materials to include alcohol use pre- and post-pregnancy. It examines the impact of alcohol on groups of women and mothers who are often missed by screening, education and treatment.

### The booklet creators include:

Bernadette Fuhrmann  
Vicki Hasenwinkle  
Anna Kucharski  
Jan Lutke

Gilda Mahabir  
Louise Pitman  
Nancy Poole  
Carrie Prentice

Michelle Sherbuck  
Cristine Urquhart  
Susan Worrall

# References

1. Ahmad, N., et al., Canadian Addiction Survey (CAS): Focus on Gender. 2008, Health Canada: Ottawa, ON.
2. Centre for Addiction Research of BC. Low Risk Drinking Guidelines for BC. 2007 [cited July 23, 2008]; Available from: <http://carbc.ca/portals/0/resources/ARC%20LowRiskDG.pdf>.
3. Kanis, J.A., et al., Alcohol intake as a risk factor for fracture. *Osteoporosis International*, 2005. 16(7): p. 737-742.
4. Sampson, H.W., Alcohol and other factors affecting osteoporosis risk in women. *Alcohol Research & Health: The Journal of the National Institute on Alcohol Abuse and Alcoholism*, 2002. 26(4): p. 208-213.
5. Alcohol and breast cancer. University of California at Berkeley Wellness Letter, 2008. 24(5): p. 3.
6. Emanuele, M.A., F. Wezeman, and N.V. Emanuele, Alcohol's effects on female reproductive function. *Alcohol Research & Health: The Journal of the National Institute on Alcohol Abuse and Alcoholism*, 2003. 26(4): p. 274-281.
7. Ikehara, S., et al., Alcohol consumption and mortality from stroke and coronary heart disease among Japanese men and women. The Japan Collaborative Cohort Study. *Stroke*, 2008(<http://stroke.ahajournals.org/cgi/content/abstract/STROKEAHA.108.520288v1>).
8. Hommer, D.W., Male and female sensitivity to alcohol-induced brain damage *Alcohol Research & Health: The Journal of the National Institute on Alcohol Abuse and Alcoholism*, 2003. 27(2): p. 181-185.
9. Mancinelli, R., R. Binetti, and M. Ceccanti, Woman, alcohol and environment: Emerging risks for health. *Neuroscience & Biobehavioral Reviews*, 2007. 31(2): p. 246-253.
10. Piazza, N., J. Vrbka, and R. Yeager, Telescoping of alcoholism in women alcoholics. *International Journal of Addictions*, 1989. 24: p. 19 - 28.
11. Lieber, C.S., Gender differences in alcohol metabolism and susceptibility, in *Gender and Alcohol: Individual and Social Perspectives*, R.W. Wilsnack and S.C. Wilsnack, Editors. 1997, Rutgers University Center of Alcohol Studies: Piscataway, NJ. p. 77-89.
12. Chermack, S.T., B.M. Booth, and G.M. Curran, Gender differences in correlates of recent physical assault among untreated rural and urban at-risk drinkers: Role of depression. *Violence and Victims*, 2006. 21(1): p. 67-80.
13. Greenfield, S.F., Women and alcohol use disorders. *Harvard Review of Psychiatry*, 2002. 10(2): p. 76-85.
14. The National Center on Addiction and Substance Abuse at Columbia University, *The Formative Years: Pathways to Substance Abuse Among Girls And Young Women Ages 8-22*. 2003, CASA: New York.
15. Hartling, L., *Prevention Through Connection: A collaborative approach to women's substance abuse*. 2003, Wellesley, MA: Wellesley Centers for Women.
16. Poole, N. and L. Greaves, eds. *Highs and Lows: Canadian Perspectives on Women and Substance Use*. 2007, Centre for Addiction and Mental Health: Toronto, ON.
17. Poole, N. and Virtual community on supporting integrated work on substance use and violence, *Coalescing on Women and Substance Use: Linking Research Practice and Policy - Information Sheet 1 - Making connections: women's experience of violence and substance use problems*. 2007, British Columbia Centre of Excellence for Women's Health: Vancouver, BC.
18. Testa, M., C. VanZile-Tamsen, and J.A. Livingston, Prospective prediction of women's sexual victimization by intimate and nonintimate male perpetrators. *Journal of Consulting and Clinical Psychology*, 2007. 75(1): p. 52-60.
19. Mello, N.K., J.H. Mendelson, and S.K. Teoh, Overview of the effects of alcohol on the neuroendocrine function in women in *Alcohol and the Endocrine System*, National Institute on Alcohol Abuse and Alcoholism Research Monograph No. 23, S. Zakhari, Editor. 1993, National Institutes of Health: Bethesda, MD. p. 139-169.

The British Columbia Centre of Excellence for Women's Health and its activities and products have been made possible through a financial contribution from Health Canada. The views expressed herein do not necessarily represent those of Health Canada.



Funding for this publication has been provided by the Province of British Columbia.

ISBN: 978-1-894356-64-0



