

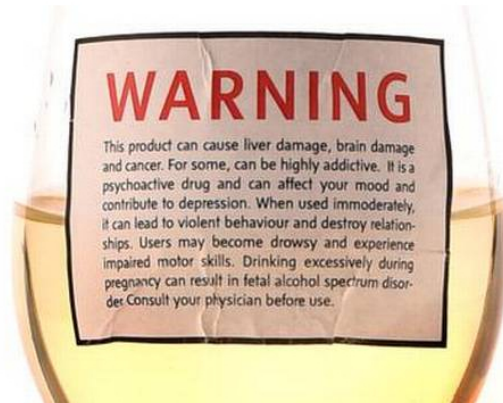
We need to talk (about our drinking)

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Most Canadians know heavy boozing is unhealthy, but many don't realize even moderate consumption is linked to disease. Here's the hard truth about our drinking

61 comments

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Kevin Van Paassen for The Globe and Mail

A few cocktails on a patio after work. A cold beer by the grill. A glass or two of wine with dinner or after the kids are tucked into bed. For most adult Canadians, drinking alcohol is an ingrained ritual, a way to unwind or celebrate milestones with family and friends, to simply enjoy life.

What many people don't realize is that the cumulative effects of regular alcohol consumption can take a serious toll on their health: Cancer, heart disease, depression and erectile dysfunction are just a few of the ailments that medical research has linked to drinking.

Even more surprising? Although heavy drinkers (and it doesn't take as much as you may think to qualify – 10 drinks a week for a woman, 15 for a man) face the biggest risks, emerging evidence shows that even moderate amounts are also tied to disease.

With Canadians drinking more than ever, and often unwittingly exceeding recommended guidelines, experts say alcohol consumption is a critical public-health issue – one they don't know how to fix.



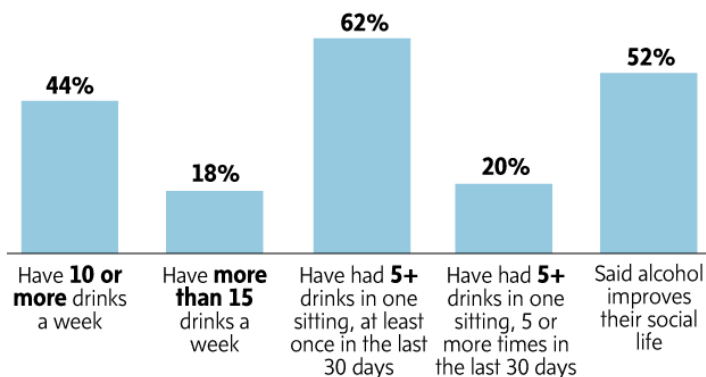
More than a hangover

Hopeful stories about the health benefits of red wine can overshadow the bad news about booze and its links to some common diseases. But the fact is, too much alcohol can make you sick.

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In a culture that normalizes and even celebrates drinking as a way of life, alcohol policy experts say the message of risk is rarely conveyed with the urgency required. Marketing, advertising and event sponsorship inextricably tie drinking to the pursuit of a good time. Beyoncé, Katy Perry, Rihanna and countless others have had hit songs glorifying alcohol. Headlines regularly extoll the heart-healthy virtues of wine.

So maybe we shouldn't be surprised by how much we drink.



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The Canadian Centre on Substance Abuse (CCSA) reports that per-capita alcohol consumption has been growing steadily over the past decade. Nearly one in five Canadians — or a total of 5.5-million — who are 12 and older are heavy drinkers, according to a Statistics Canada survey conducted in 2012. (For these purposes, Statscan defines heavy drinking as five or more drinks per occasion for a man, and four or more for a woman, at least once a month during the past year.)

Unsurprisingly, a high proportion of young adults in their college or university years are heavy drinkers. But graduation doesn't seem to have a slowing effect. By any definition, the number of Canadians considered heavy drinkers remains high, and in some cases is even higher after the post-secondary school years. Among 20- to 34-year-olds, nearly 40 per cent of men and almost 25 per cent of women are considered heavy drinkers, according to the Statscan data.

Gender is less of a factor, too. For decades, men drank more and in higher amounts; in recent years, the gender gap has narrowed substantially.

While public health experts are on a mission to put the risks of alcohol on the radar, widespread lack of awareness will make it an uphill battle. "It's going to take a very serious commitment," says Gerald Thomas, an alcohol policy, drug policy and workforce development associate at the CCSA. "I don't think as a society we've really come to grips with this yet."

IS DRINKING DETRIMENTAL TO YOUR HEALTH?

46% said not at all

36% said minimally

ALCOHOL INTAKE

3% wished they drank

34% wished they drank

Cancer

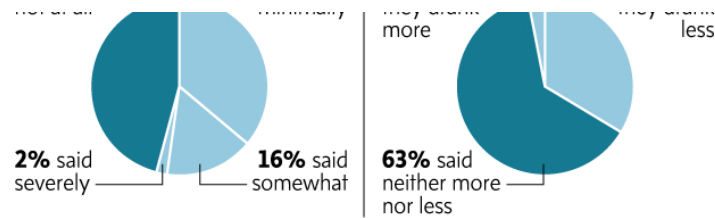
The International Agency for Research on Cancer classifies alcohol as a "Group 1" carcinogen, meaning there is sufficient evidence that it causes cancer. It's no surprise that drinking increases your risk for liver cancer, but alcohol also raises the likelihood of getting cancers of the oral cavity, pharynx, esophagus, larynx, breast and colon, according to Cancer Care Ontario, the agency that co-ordinates cancer services in Canada's most populous province. In a report released in April, CCO estimated that, in 2010, between 1,000 and 3,000 new cases of cancer in Ontario alone could be attributed to drinking. Does the amount or type of alcohol you consume affect cancer risk? More is definitely worse, but the CCO says there is no clear "safe limit" of alcohol intake. Beer, wine and spirits all increase your risk, which suggests ethanol, a human carcinogen found in all alcoholic beverages, could be to blame. To make matters worse, liquor loosens the restraint of occasional and erstwhile smokers, leading them to light up the cancer sticks more often.

Heart disease/Stroke

The World Health Organization acknowledges that the relationship between alcohol and heart disease is "complex." As all the good-news-about-red-wine studies indicate, moderate drinking — one or two glasses of alcohol a day — appears to help prevent some types of heart attack and stroke. But that effect vanishes if you guzzle too much booze. Moreover, alcohol has "detrimental effects" on blood pressure, on a common type of irregular heartbeat, and on brain-bleed strokes, "regardless of drinking pattern," according to WHO. As the Heart and Stroke Foundation of Canada says: "If you really want to have an impact on your heart health, you're better off eating a healthy diet, being physically active by doing moderate- to vigorous-intensity aerobic activity for 150 minutes a week, and becoming smoke-free."

Diabetes

When it comes to drinking and diabetes, a little liquor can go a long way. The key word there is little. Research has found that moderate alcohol intake helps prevent diabetes, while heavy imbibing contributes to causing it. According to a meta-analysis of 20 cohort studies published in 2009 in the journal Diabetes Care, consuming 22 grams of alcohol per day (between one and two drinks) was



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How much is too much?

When it comes to health effects as opposed to drunkenness, Canadians don't know how much is too much.

In 2011, the CCSA published the first-ever national guidelines that spell out how many drinks is too many for short- and long-term health. Until then, there had been no accepted limit around which health organizations could create education campaigns, or that doctors could use to gauge patients' drinking habits.

The fact that it has taken this long to establish low-risk drinking guidelines speaks to how ingrained alcohol has become, and the reluctance to admit that, collectively, we may have a problem.

"It is challenging, without a doubt," says Dr. Linda Rabeneck, vice-president of prevention and cancer control at Cancer Care Ontario.

According to the CCSA guidelines, women shouldn't drink more than two drinks a day on most days, to a maximum of 10 in a week. For men, it's no more than three drinks on most days to a maximum of 15 drinks a week.

The guidelines also urge people to avoid alcohol at least some days of the week to prevent becoming dependent.

Under the guidelines, a "drink" means a 12-ounce or 341-millilitre beer, cider or cooler with five-per-cent alcohol content; a five-ounce or 142-mL glass of wine with 12-per-cent alcohol content; and 1.5 ounces or 43 mL of distilled alcohol (vodka, gin, rum, etc.) with 40-per-cent alcohol content (80 proof).

Heavy drinking is defined as having consumed **five or more drinks (four for women)**, per occasion, at least once a month during the past year. This translates to:



Cancer Care Ontario and other cancer organizations take an even stricter stance. They recommend no more than a drink a day for women and no more than two drinks a day for men. Alcohol is carcinogenic, and almost any amount is going to increase the long-term risks of developing cancer, Rabeneck says.

One issue for researchers is that most of us don't know how much we drink. A study

the amount likeliest to reduce a man's relative risk for Type 2 diabetes. At just over 60 grams (or more than four drinks) per day, however, the effect of alcohol on diabetes became "deleterious." The negative effects kick in at 50 grams for women.

Other issues

Liver cirrhosis, pancreatitis and fetal alcohol syndrome are well known as possible outcomes of excessive drinking. According to WHO, higher levels of alcohol consumption "create an exponential increase in risk" for pancreatitis, an inflammation of the gland that aids digestion and regulates blood sugar, and for liver cirrhosis. Permanent damage and scarring to the liver can lead to jaundice, bloating, nausea and, eventually, the failure of the organ. If that isn't enough to convince you to cut back on the beer, wine and liquor, consider this: Too much drinking can also lead to erectile dysfunction.

Sources: *International Agency for Research on Cancer, Cancer Care Ontario, World Health Organization, Heart and Stroke Foundation of Canada, American Diabetes Association.*

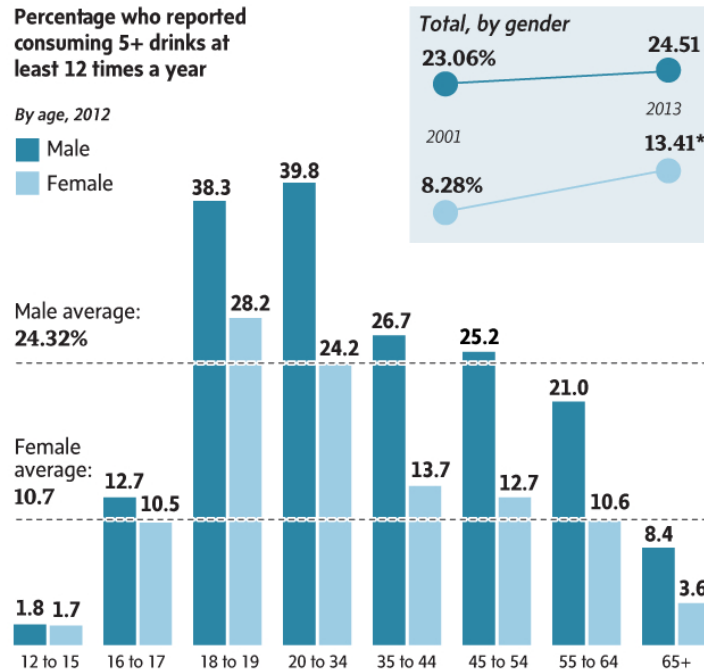
The issue for researchers is that most of us simply don't drink responsibly, published in June by the Centre for Addictions Research at the University of Victoria found that Canadians underestimate their alcohol consumption by up to 75 per cent. It's critical because most surveys of alcohol consumption rely on respondents' memories – which means that most reports of drinking patterns lowball the true amount that Canadians drink.

The 2012 Canadian Alcohol and Drug Use Monitoring Survey (based on self-reported data) found that nearly 20 per cent of Canadians drank more than the recommended limits, putting themselves at risk for long-term health problems.

As officials sound the alarm over alcohol use, however, there are others who think the risks are being overstated. A 2011 study in the Journal of the American Medical Association made worldwide headlines with its finding that three to six drinks a week raise a woman's breast-cancer risk by 15 per cent. But in real-world terms, that translates into a small increased risk to women.

Similarly, the majority of studies conducted haven't shown alcohol as the cause of disease, but merely that it is a factor. It could be that people who drink a lot are also more prone to cancer or heart disease because of poor diet, lack of physical activity and a host of other complex factors, says Dr. Alain Dagher, a neurologist at the Montreal Neurological Institute at McGill University. "There's an immense amount of evidence that, for most people, moderate consumption is better than no consumption," Dagher says.

And that seems to be the key: moderation. To the average consumer, that could mean three or four drinks throughout an evening. In medical literature, however, "moderation" is usually defined as one drink per day.



* The heavy drinking definition for females was lowered to four drinks in 2013

The heavy drinking definition for females was lowered to four drinks in 2013, resulting in the appearance of a spike in consumption.

The problem with drinking responsibly

The message that most consumers are familiar with is the vague reminder on liquor advertisements to "please drink responsibly." But the phrase is essentially meaningless, Thomas argues, because it doesn't offer any concrete sense of what responsible drinking entails. To many, it means arranging a taxi ride home after a night of heavy drinking.

What is needed, according to experts like Thomas, is for Canadians to understand that alcohol comes with risks, and those who exceed the guidelines would be wise to fundamentally reassess their relationship with alcohol. "Why is it so hard for us to look at the downside of alcohol?" he asks.

Weaning the public off its love affair with alcohol would not be easy, with drinking so deeply embedded in our culture. Take hockey, a game as essential to Canadian identity as hops are to beer. Molson Coors Brewing Co. shelled out \$375-million (U.S.) to be the NHL's beer sponsor for seven years, a deal that began at the start of the lockout-shortened 2013 hockey season. Labatt, meanwhile, inked its own agreement with CBC-TV's Hockey Night in Canada to feature its Budweiser brand during Coach's Corner with Don Cherry, and sealed a separate marketing partnership with the NHL Players' Association. The rival brewers even went to court over the privilege of sponsoring the league.

"We are drowning in a sea of alcohol advertising," says Dr. David Jernigan, director of the Center on Alcohol Marketing and Youth at the Johns Hopkins Bloomberg School of Public Health in Baltimore. "This is an industry that, conservatively, in the U.S. is spending about \$4-billion a year on advertising and marketing of various kinds."

All that advertising and marketing exerts an especially irresistible pull on young drinkers. A slew of research has found that teenagers start drinking earlier if exposed to alcohol ads; if they've already downed their first drink, advertising prompts them to drink more.

Although there are restrictions on marketing beer, wine and liquor to minors in both the U.S. and Canada, the rules have gaping loopholes. In Canada, the Canadian Radio-television and Telecommunications Commission code that governs alcohol advertising to young people has not been updated since 1996, which means that Twitter, Facebook, YouTube and other social media channels can pipe fun, sexy images of drinkers directly into the devices in teenagers' hands.

What it does to your body



Just the (staggering) facts

By any measure, the harmful effects of alcohol far outweigh the benefits. Consider that:

Worldwide, each person over the age of 15 drinks about 6.2 litres of pure alcohol annually. But that figure is a bit misleading because only about 38 per cent of adults consume alcohol; others abstain largely because of cultural and religious prohibitions.

Canadians, by global standards, are heavy drinkers. About 80 per cent of adults consume alcohol – about 18.8 litres of pure alcohol annually per man and 7.4 litres per woman.

The averages mask some troubling trends, in particular the growing tendency toward binge-drinking among young people. The so-called "troubled drinkers" – one-quarter of the total – consume about three-quarters of all alcohol.

Worldwide, 3.3-million people a year die of alcohol-related causes, according to the recent Global Status Report on Alcohol and Health, published by the World Health Organization. For some perspective, that's more than twice as many as the number of people who die from HIV-AIDS, a pandemic scourge.

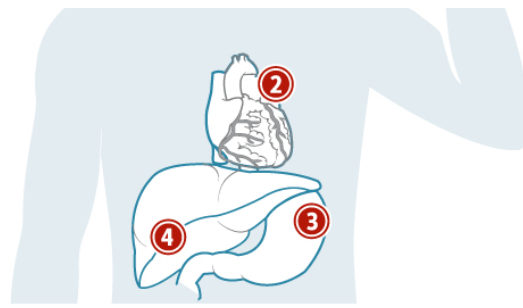
Death is just the tip of the iceberg. Alcohol consumption – and over-consumption in particular – increases the risk of more than 200 illnesses, including cirrhosis of the liver, breast cancer and depression.

The harm extends far beyond the impact on the physical and psychological health of the drinker. The disinhibition that comes along with alcohol consumption contributes to the spread of sexually transmitted infections and unwanted pregnancies. Drinking excessively during pregnancy can lead to fetal alcohol spectrum disorder, a severe developmental disability.

The impairment alcohol causes is a major contributor to motor vehicle crashes, traumatic injuries, domestic violence and sexual violence in particular.

The economic impact of this tipping is significant, as well:

Along with the health costs, drinking is expensive, especially when it



1. **THE BRAIN** Moderate consumption of alcohol won't actually kill off brain cells, but prolonged heavy drinking can result in brain shrinkage and damage to neurons that communicate information. Alcohol enhances the effects of gamma-aminobutyric acid (GABA), a common inhibitory transmitter (it slows the flow of messages) that is involved in vision, motor control and other functions. Alcohol also blocks the effects of glutamate transmitters, which are associated with memory and learning. 2. **CIRCULATION** Alcohol causes blood vessels to dilate. 3. **THE STOMACH** The booze we drink – known medically as ethanol – is metabolized into a toxic chemical called acetaldehyde, and this process begins in the stomach. Food slows down the passage of alcohol through your stomach. Eating before or while consuming alcohol helps to slow down the absorption of alcohol and reduce the concentration of alcohol in the bloodstream. 4. **THE LIVER** The liver finishes converting alcohol absorbed from the stomach and the toxic acetaldehyde into water and carbon dioxide in order to safely flush it from the body. But it can only metabolize a certain amount of alcohol per hour. If you drink alcohol faster than your liver can deal with it, the level of alcohol in your bloodstream rises. Repeated heavy drinking overworks your liver, which can lead to cell destruction, fat deposits, inflammation and/or scarring. SOURCE: CANADIAN LIVER FOUNDATION; HEALTH CANADA; BROWN UNIVERSITY; HOWSTUFFWORKS; NATIONAL INSTITUTE ON ALCOHOL ABUSE AND ALCOHOLISM, CENTERS FOR DISEASE CONTROL AND PREVENTION, JOHNS HOPKINS BAYVIEW MEDICAL CENTER

"One of the areas that is expanding is the social media," says Dr. Norman Giesbrecht, a senior scientist emeritus at the Centre for Addiction and Mental Health in Toronto. "I think there's very little control on that. You have very aggressive advertising there."

Studies on how booze advertising influences adults are harder to come by, in large part because there is scant interest in controlling how a legal product is pitched to grown-ups.

"We generally – we being liberal democracies – tend to take the stance that adults are responsible for their own health behaviours, that there are real limits to what we are willing to do to protect adults from themselves," Jernigan says.

There are exceptions to that rule, of course. As the ill consequences of smoking became more apparent, cigarette advertising was curbed dramatically.

"Smokers have been made to feel like they're outcasts," says Dr. James Sargent, a professor of pediatrics at the Geisel School of Medicine at Dartmouth College in New Hampshire. "Alcohol is completely different ... people perceive alcohol as something that makes socializing easier. It's a social lubricant."

To complicate matters further, the health case against drinking is not nearly as airtight as the one against smoking. The vast majority of doctors see no reason to deprive yourself of a nice glass of wine with a home-cooked meal.

"[The] difference is cigarettes are products that, used as intended, can kill you," Jernigan says. "With alcohol, it is a muddier message. When you've got a muddier message, it's always harder to get it through."

leads to job loss and marital breakdown.

In Canada alone, it costs the economy \$14.6-billion annually, including \$7.1-billion in lost productivity, \$3.3-billion in direct healthcare costs and \$3.1-billion for alcohol-related law enforcement costs. That's double the impact of illicit drugs.

Harm-reduction measures that can minimize the damage include:

Regulating the availability and marketing of alcohol,

Enforcing aggressive rules about pricing and taxation,

Enacting tougher impaired-driving laws,

Creating awareness programs that highlight the harms of excess consumption,

Making treatment accessible and affordable.

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VIDEO



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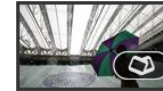
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