

# Liver Disease in Canada

A CRISIS IN THE MAKING



AN ASSESSMENT OF LIVER DISEASE IN  
CANADA BASED ON AVAILABLE DATA

## HIGHLIGHTS AND KEY RECOMMENDATIONS

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## **Liver diseases are killing more Canadians every year but no one seems to notice.**

As the largest internal organ, the liver is tied into virtually every critical process of the body. Despite its vital role in maintaining overall health, the liver is routinely ignored by the majority of Canadians. Unfortunately dismissing the liver has dangerous consequences to quality of life and life expectancy but few understand just how high the stakes are.

Over a period of only eight years, the death rate from liver disease has risen by nearly 30%. Those directly involved in the care of liver disease patients have seen this tragedy play out again and again in hospitals across the country. And yet there is no sense of urgency to collect or evaluate data to measure the true scope of the disease burden nor is there a sense of urgency to deal with it. Alcohol abuse does cause liver disease however a lack of data and a persistent assumption and stigma linking liver disease with only alcohol have made it difficult to overcome both public and government apathy.

It is estimated that one in 10 Canadians, or more than three million people, has some form of liver disease. The most common forms of liver disease – viral hepatitis, fatty liver disease and liver cancer – are all on the rise which means that the increase in death rates from these diseases and their complications will continue to climb if there is no effective intervention.

Liver disease should not be a death sentence. Effective screening, diagnostic and treatment options exist for many patients but without coordinated strategies, supportive government policies and financial investments in patient care and research, liver diseases will continue to strike from the shadows taking lives and exacting a high toll on the nation's health care systems. The key findings from this report highlight the gaps in care, missed opportunities for prevention and the human impact of liver disease.

## **All major forms of liver disease are increasing in Canada.**

- Liver disease can be difficult to diagnose because the symptoms can be vague or even non-existent until the disease is advanced.
- It's estimated that one in ten Canadians, or more than three million people, has some form of liver disease.
- 95% of deaths from liver disease are due to chronic hepatitis B and C, alcoholic liver disease, non-alcoholic fatty liver disease and liver cancer.
- Viral hepatitis (specifically chronic hepatitis B and C) is far more common and more infectious than many other infectious diseases, including HIV, and affects more than 500 million worldwide and an estimated 600,000 in Canada.
- Liver failure related to hepatitis C is the leading cause of liver transplants.
- Liver cancer is one of the few forms of cancer on the rise and liver cancer death rates related to hepatitis B are predicted to rise by 50%. The relative contribution of chronic hepatitis B and C, alcoholic liver disease and non-alcoholic fatty liver disease to the rising death rate from liver disease is unknown.
- An estimated 25% or 8.5 million Canadians are obese. Fatty liver disease linked to obesity is the most common form of liver disease in Canada.
- In Canada, each 1 litre increase in per capita alcohol consumption is associated with a 16% increase in cirrhosis deaths in men and 12% in women.





## **Too many Canadians are dying because liver disease is under-diagnosed and under-treated.**

The most severe consequences of liver disease can be avoided through prevention or through early detection but we are missing opportunities to intervene.

- Hepatitis B and C often have no symptoms until complicated by liver cancer, cirrhosis and liver failure. Despite the risk and the high prevalence, there are no widespread screening programs for either disease.
- 90% of infants who contract hepatitis B will develop life-long infection and yet only 3 provinces offer universal neonatal immunization.
- Less than 10% of hepatitis B patients and less than 25% of hepatitis C patients have been treated due to cost, restrictive reimbursement policies, lack of health care resources and poor understanding amongst patients and primary health care providers.
- In Canada, the most potent drug therapies for hepatitis B are not available for reimbursement in many provinces. In 2009, 58% of patients requiring government assistance for drug costs received a low-cost but less-potent drug that is no longer recommended by liver specialists in this country or around the world.
- The only treatment for end-stage liver disease is a liver transplant. In Canada, there are an estimated 5,000 deaths per year due to liver disease and approximately 400 liver transplants. Approximately 1/3 of patients on the waiting list for transplants will die due to a shortage of donor organs.

- Liver cancer is the leading cause of death of hepatitis B patients and a major cause of death for patients with other chronic liver diseases. Although liver cancer can be successfully detected and treated if caught early, there are no government screening recommendations for at-risk patients.
- Government agencies spend 5 to 10 times more on research into diseases that affect significantly fewer people than hepatitis B or C.
- Only 4 provinces have multi-disciplinary groups to provide specialized care for liver cancer patients.



## **Treating liver disease is costly but ignoring it will cost even more in lives and resources.**

- In Canada, there are 400 physicians and specialists who treat viral hepatitis but of these, fewer than 50 treat more than 50 patients per year.
- From 2006-2009, in-hospital procedures for liver disease patients (including transplants) cost in excess of \$157 million and this estimate does not include all procedures, nor hospital stay and physician costs.
- Liver transplants cost more than \$100,000 per person including hospital costs and immunosuppressive drugs. Treating hepatitis B may cost \$7,000-\$9,000 per year for 10-20 years while a course of treatment for hepatitis C may be \$20,000-\$70,000.

### **We need to do more to fight liver disease. And we need to do it now.**

Unlike other major diseases, there has been no national strategy put in place for a public health response to liver disease. Without a coordinated effort involving investment and resources for prevention, screening, treatment, patient care and research, thousands of Canadians will die needlessly. The Canadian Liver Foundation, in partnership with liver experts from across the country, is sounding the alarm and recommending short-term and long-term solutions to help defuse this ticking time bomb. We urge federal and provincial/territorial governments and health agencies to make liver disease a priority and to act to protect the health and well-being of Canadians of all ages.



## Key recommendations:

1. Encourage family physicians to incorporate liver enzyme (ALT) screening into all annual physicals.
2. Establish provincial agencies to manage liver disease beginning in Ontario, Quebec, Alberta and British Columbia where liver disease is most prevalent. Using the cancer agency model, these agencies would be responsible for determining priorities, ensuring efficient use of public funds, and establishing control programs. The agency should be governed by an external board of directors comprised of members of the public and physicians with expertise in liver disease and epidemiology who are independent of the provincial health ministry.
3. Conduct a national seroprevalence survey with oversampling in immigrant communities to determine the prevalence of hepatitis B and C in Canada and identify the communities with the greatest need for resources.
4. Increase treatment capacity by:
  - a. Establishing in-patient units and out-patient clinics staffed with trained physicians and nurses to care for liver disease patients in major urban and regional hospitals in each province.
  - b. Setting up provincial funding resources for nurse practitioners specializing in liver disease.
  - c. Recruiting family physicians to treat patients as part of hepatitis treatment groups.
5. Mandate standardized provincial/territorial reporting procedures for acute and chronic hepatitis B and C with information being collected and collated by the Public Health Agency of Canada.
6. Implement universal screening for hepatitis C for all adults born between 1945-1975 and widespread screening of new immigrants for hepatitis B.

7. Implement universal neonatal hepatitis B immunization with a catch-up program for provinces switching from an adolescent vaccination program. Harmonize hepatitis B immunization programs between provinces for high risk adults.
8. Simplify and improve coding for liver disease procedures and deaths.
9. Establish liver cancer (HCC) screening programs for all at-risk patients with outcome tracking and quality assurance protocols.
10. Enhance resources (equipment and personnel) at existing regional cancer centres to facilitate multidisciplinary care of liver cancer.
11. Improve access to treatment for hepatitis B and C patients by establishing less restrictive reimbursement policies based on the most up-to-date approaches to the management of these diseases and not strictly on cost of treatment. Eliminate reimbursement restrictions based on ALT level and presence of cirrhosis.
12. Establish research programs for hepatitis B and C that examine innovative ways to deliver care.



The Canadian Liver Foundation commissioned this report to show — for the first time — the true scope of liver disease in this country. Using information from various sources including government, academic and institutional databases and individual treating physicians, our experts pieced together facts and figures and extrapolated data on the most prevalent forms of liver disease. By publishing this report, we are issuing a call to action to federal and provincial governments to address this serious health issue for the sake of all Canadians.

## About the Canadian Liver Foundation

The Canadian Liver Foundation (CLF) was the first organization in the world devoted to providing support for research and education into the causes, diagnoses, prevention and treatment of all liver disease. Through our chapters across the country, the CLF strives to promote liver health, improve public awareness and understanding of liver disease, raise funds for research and provide support to individuals affected by liver disease.

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A full copy of *Liver Disease in Canada: A Crisis in the Making* is available by visiting [www.liver.ca/advocate](http://www.liver.ca/advocate) or by contacting **Melanie Kearns** via phone 1-800-563-5483 ext 4923 or email [mkearns@liver.ca](mailto:mkearns@liver.ca)

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