

HYPERTENSION
How your blood pressure level could be affecting your health. **p04**

ATRIAL FIBRILLATION
Triathlete Karsten Madsen on competing with heart disease. **p07**

INNOVATIONS
How interventional cardiology is changing heart surgery. **p08**

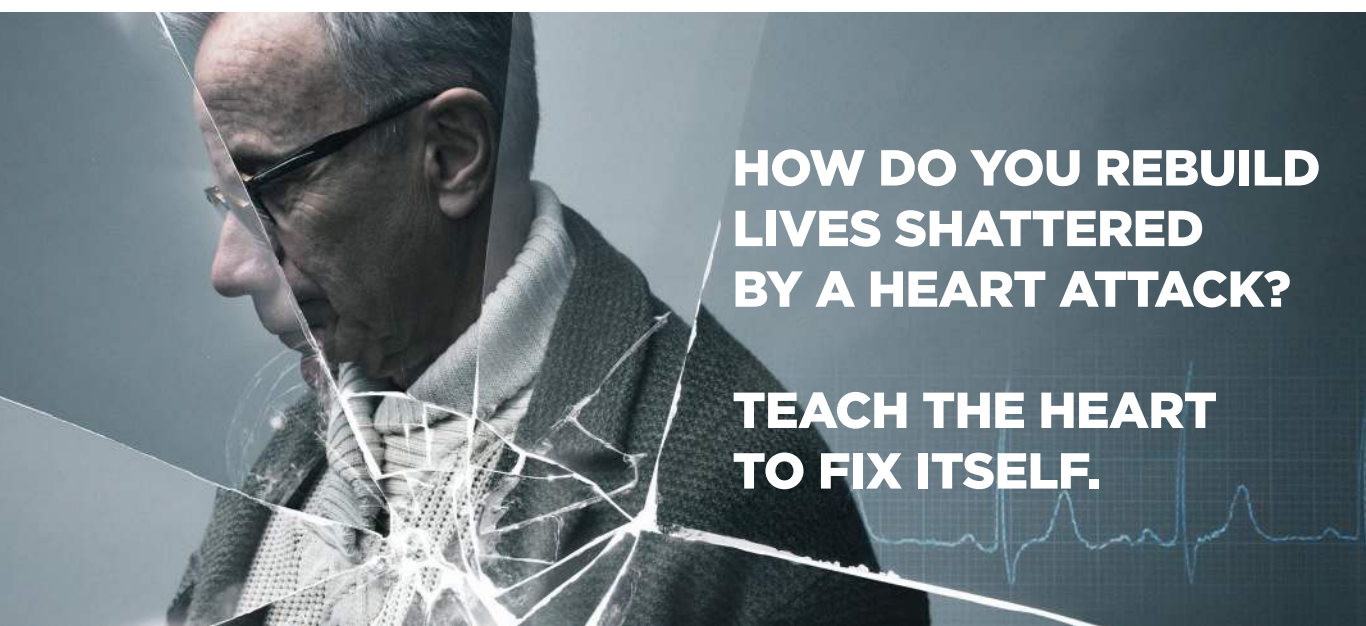
CARDIOVASCULAR HEALTH

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February is
**Heart
Month**



Launching into Heart Month and Stroke Month with **Dr. Roberta Bondar**, Honorary Chair for the Heart and Stroke Foundation.



**HOW DO YOU REBUILD LIVES SHATTERED BY A HEART ATTACK?
TEACH THE HEART TO FIX ITSELF.**

▶ **REGENERATIVE MEDICINE**



**HEART & STROKE
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Sitting Disease
How your desk job may be putting your heart at risk. **p04**

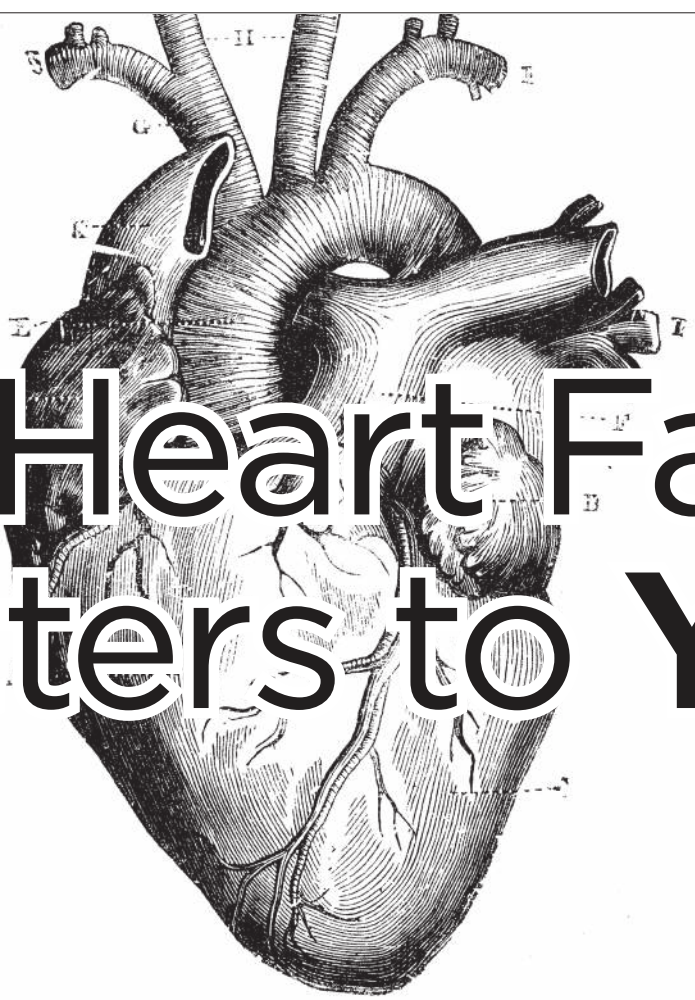


Patient Adherence
How sticking to your medication schedule could save your life. **p07**

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Carolyn Thomas
Blogger, advocate, and survivor, Carolyn Thomas of *Heart Sisters* gets to the heart of female cardiovascular health. **Online Exclusive**



Why Heart Failure Matters to You

It's the last stop on a painful and debilitating journey through heart disease. More Canadians are getting heart failure. **And more are dying.**

Here's a startling truth: Almost half of Canadians have been touched by a fatal disease that most of us know little about. Heart failure is a growing — but largely silent — epidemic in Canada. Depending on the severity of their symptoms, half of heart failure patients will die within five years, and most will die within 10 years. Heart failure is the focus of the Heart and Stroke Foundation's 2016 *Report on the Health of Canadians*. I hope this report will wake up more Canadians, policy makers and healthcare providers to the urgent threat of this devastating condition. As we learned in a poll conducted for the report, almost half of Can-

adians have either been diagnosed with heart failure themselves or have a family member or close friend with the condition. Think about that — half of us have direct experience with heart failure! Yet, our poll showed that many Canadians understand little about heart failure and its impact. Almost one in five believe that heart failure is a normal part of aging; Almost half mistakenly think it can be cured. Let me be clear: Heart failure is not a normal part of aging. It's a chronic condition that gets worse over time. The heart starts to deteriorate after it has been damaged by a heart attack or other disease. Eventually it becomes unable to pump blood as well as it should. There is no cure for heart failure yet. While lifestyle changes and



David Sculthorpe
CEO, The Heart and Stroke Foundation

medications can help many people manage their symptoms, advanced heart failure will leave you exhausted and breathless, unable to carry out the simplest task. You may be in and out of hospital, with your family struggling to manage your needs. That's why finding a cure is critical. It's also why I'm excited about the promise of regenerative medicine. The research Heart and Stroke Foundation donors are funding in this field is showing promise. Simply put, regenerative medicine is about finding ways to repair or even replace damaged cells. For example, the work of Dr. Paul Fedak focuses on the heart matrix, the proteins that glue heart muscle cells together. Dr. Fedak and his team are working to create an organic "patch" that could heal and strengthen a damaged heart.

At the same time, Dr. Kim Connolly is investigating how to teach the heart to heal itself by using a patient's existing cells to grow new, healthy ones. I urge you to read the previously mentioned report for a critical look at the burden of heart failure, on Canadians' health and on our healthcare system. You'll meet people whose lives have been changed by heart failure. Plus you'll hear from some of the 69 top heart failure experts we surveyed, whose insights will help us address the urgent threat of heart failure. Right now 600,000 Canadians are living with heart failure. Another 50,000 will be diagnosed this year. We need to do everything we can to beat this death sentence. **o**

David Sculthorpe

Keep The Heart Pumping

Leading cardiologists, Dr. Vivek Rao and Dr. Justin Ezekowitz, shed light on heart failure in Canada.

Medioplanet Who is most susceptible to heart failure?
Dr. Justin Ezekowitz Patients with hypertension, diabetes, coronary artery disease, those over 65 years of age. Also, those receiving chemotherapy for cancer and with heart rhythm problems such as atrial fibrillation.
Dr. Vivek Rao The take home message is that anyone can get heart failure. Its most common cause in the Canadian population is coronary artery disease and the various conditions associated with heart attacks. Thus, smoking, obesity, hypertension, hyperlipidemia, and diabetes are the risk factors that predict those most at risk



Dr. Vivek Rao
Chief, Cardiovascular Surgery, Peter Munk Cardiac Centre



Dr. Justin Ezekowitz
Cardiologist, Mazankowski Alberta Heart Institute and Director, Heart Function Clinic

for heart failure. Patients with diabetes, obesity, and hypertension can also develop heart failure in the absence of any coronary artery disease. Likewise, anyone can suffer from a viral infection that results in heart failure.

While rare, thankfully, a viral infection does not have a predilection for any patient subset.
MP What factors can contribute or lead to heart failure?
JE Poor diet and limited exercise;

as well, poorly controlled diseases previously mentioned. **VR** Diabetes, hypertension, obesity can independently lead to heart failure. Patients who have valvular heart disease or cardiac arrhythmias that are not appropriately treated can also develop it.
MP How has the way heart failure is treated changed over time?
JE In the 1980s we had virtually no therapies. Then along came a number of medications that reduced the chances of dying, being hospitalized, or improved the quality of life significantly. In addition, improvements in pacemakers, defibrillators, as well better focus on care teams (such as heart function clinics) have all helped improve quality of life, and reduce the chances of dying or being hospitalized.

That said, we have a long way to go in modifying the treatment of patients seen in the E.R. with acute heart failure, and for those who have chronic heart failure or remain quite ill despite the best medical therapies. We're also finding new ways to treat patients with exercise, diet, and focusing more on the quality of life than before. **VR** We now have very sophisticated blood tests to objectively measure the degree of heart failure: for example, brain natriuretic peptide (BNP). In addition, there are more specialized outpatient heart failure clinics in more communities. Lastly, there have been tremendous advances in heart transplantation and artificial heart technology — addressing the needs of patients with severe or advanced heart failure. **o**

Source: Heart and Stroke Foundation

HEART FAILURE IS A GROWING EPIDEMIC

HEART FAILURE is on the RISE in CANADA.

600,000 CANADIANS are living with HEART FAILURE.

50,000 CANADIANS are diagnosed each year with HEART FAILURE.

1-2 CANADIANS has been touched by HEART FAILURE.

HEART FAILURE costs more than **\$2.8 BILLION** per year.

HEART FAILURE patients have **LONG** and **FREQUENT** hospital stays.

There is **NO CURE** for **HEART FAILURE**.

HEART FAILURE patients are **COMPLEX**, often managing other conditions.

HEART FAILURE patients experience **SHORTNESS OF BREATH**, exhaustion and swelling.

HEART FAILURE caregivers are often overwhelmed and **STRESSED**.

From Astronaut to Advocate

In a candid interview, Canada's own **Dr. Roberta Bondar** shares her insights on improving cardiovascular health.

Dr. Roberta Bondar's name has held a special place in Canadian history since the 1990s — having led an international team of NASA researchers for over a decade after travelling to space.

Question Canadians know you best as our first woman in space. You just joined the Heart and Stroke Foundation as Honorary Chair of Heart Month and Stroke Month. Is there anything specific that drew you to volunteer with this organization?

Answer I'm a neurologist and for many years my research focused on blood flow to the brain. The research I did for NASA was the first to look at changes that occurred in people who went to space and after they came back. All this helps us understand the basic physiology in the brain, which gets altered, of course, in stroke and heart disease. So it really feels natural for me to want to participate in supporting research myself.

Q As someone who embraces challenges, do you have any words of encouragement for Heart and Stroke Foundation volunteers canvassing to raise funds for research?

A They need to know that they're always making a difference. Not having enough funding is one of the biggest research challenges we're facing today. At the same time, these volunteers are bringing awareness to the urgency of heart disease and stroke, and what the average Canadian can do to lower their risk. In some talks that I give, I speak about the fact that you can have a life experi-



Dr. Roberta Bondar canvasses door-to-door to represent and raise funds for the Heart and Stroke Foundation during Heart Month. Photos: May Truong, NASA (round)

ence that can teach you something, but if you don't share it — it dies. It ends with you. It's our responsibility to share what we learn — in this instance, to help people see cardiovascular health differently.

Q What would you say are the biggest barriers we face when it comes to living a healthy lifestyle?

A I think it's the idea of value. People value their health and the health of their loved ones.

But we tend to make work a higher priority because we think if we don't, it'll bite us in the heel before a stroke will. I can't tell you when you're going to have a stroke. When it happens, it happens. So, in the meantime you can make all kinds of excuses not to do the things that could reduce your risk — such as exercise, cutting out salt, or monitoring the sugars in your diet if you're diabetic. We let everything else take precedence because those things have shorter-term consequences.

“People value their health and the health of their loved ones. But we tend to make work a higher priority because we think if we don't it'll bite us in the heel before a stroke will.”

Q Beyond trying harder, are there any strategies we can follow to help healthy habits stick?

A Well, we can't be ashamed that we're human beings. We need to recognize our limitations and shortfalls. For someone to make a major shift they usually need two things: motivation and a support system. That motivation might come from peer pressure, or after something monumental has happened in that person's life — like a heart attack or stroke. Once that happens, they need to set goals and find support from friends, family, or a healthcare professional. Without the right supports in place, that initial motivation will fade away because we're human.

Q What would you like to see Canadians do to take charge of their health?

A Start looking at things you can change — because you can't tell your body, “Hey, I don't want hypertension or diabetes.” Your body forms itself according to the resources you give it. Whether it's rest, diet, exercise, or stress — your body is just going to form around it. The only control you have is to give it the right building blocks, the best you can possibly give it. ●

TAKE A
MINUTE
TO SAVE
a life

Every seven minutes, a Canadian dies from heart disease or stroke.

This February, open the door to one of our volunteer Canvassers and support the promising research that's saving lives.

For more information, visit heartandstroke.ca/help



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