Diabetes discovery

Bringing you closer to the people whose lives you help change.

Fighting for fair and affordable access to diabetes medication and supplies

Do I have enough medication to make the month? Will I be able to pay the bills? How will we be able to afford medication and supplies after my husband retires?

For millions of people living with diabetes, the fear and worry about the future never stop. Managing diabetes is a lifetime responsibility and one that could cost the individual thousands of dollars a year – a huge financial burden that many Canadians living with this disease face.

To effectively self-manage diabetes and diabetes-related complications, people with diabetes need access to medications, as well as diabetes devices and supplies. While some improvements have been made across Canada, access remains inequitable and out-of-pocket costs high.

"Many Canadians living with diabetes can not afford the costs of needed diabetes medications, devices and supplies, and therefore it is important that items such as test strips and insulin pumps are included in public coverage," says Aileen Leo, Associate Director, Public Policy and Government Relations, Canadian Diabetes Association.

Story continued inside...



Bree & Courtney Riddoch, Saskatchewan
Photo: Hannah Zitner/KlixPix

Thanks to your support, the Canadian Diabetes Association is leading the fight against diabetes by advocating on behalf of people living with the disease.

What's inside:

Research Update: Vaccine for type 1 diabetes closer to reality

Denise De Campos: What a cure would mean to me

5 Tips for Healthy Living



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Why I Give to the Association

For Julie Holder, working for the Canadian Diabetes Association is more than just about sharing her expertise to help an important cause – it's about honouring the memory of her father who lost his life to diabetes-related complications.



Iulie Holder

"Being a monthly donor is a way to ensure critical diabetes research continues."

As the Regional Director of Vancouver Island Region, Julie is part of a small but mighty team that is responsible for organizing and overseeing the Association's educational programs, support services and fundraising activities in the community. She is also a loyal supporter who donates monthly.

"It's one thing to contribute to the Association's work as an employee. It's another to be a donor," says Julie. "Being a monthly donor is a way for me to show support for the work of everyone at the Association – staff, researchers and volunteers. It is also a way to ensure that critical diabetes research continues so that one day no one will have to lose a loved one the way I lost my father."

When asked what a cure would mean to her, Julie shared these heartfelt words: "It would mean that people living with diabetes and their loved ones wouldn't have to suffer anymore. It would be a gift to millions of Canadians and people around the world."

Monthly giving is a simple, convenient and cost-effective way to support the Association's efforts in the fight against diabetes. To sign up today visit diabetes.ca/discovery

What a **Cure** Means to Me

In the words of Denise De Campos:

A cure would mean not having to work the full-time job of managing diabetes, while also working a paid job. It would mean not having to fear whether I can afford to pay for my insulin and diabetes supplies or worry about making sure that my job has health benefits that support my diabetes related needs. It would mean not having to think about the impact of every decision I make and how it will affect my diabetes or my life.

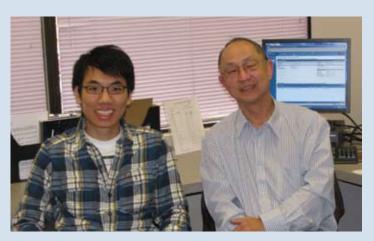
We all worry about the future. However, when you have diabetes and have faced its many challenges and complications, you are forced to worry about when and how this relentless disease will affect you next. For myself and millions of others struggling with diabetes – a cure would mean freedom from the burden of worrying about all of this!



What would a cure mean to you? Let us know at towardsacure@diabetes.ca

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Making diabetes information accessible



Diabetes Information and Support Centre Volunteers.

Every hour of every day, more than 20 people are diagnosed with diabetes. Each one will need to learn to manage their condition.

Unfortunately for those people whose first language is not English, diabetes resources are not easily accessed.

To help them, the Association's Pacific Area runs the Diabetes Information and Support Centre (DISC) where trained volunteers provide information, resources and referrals. Thanks in part to donor support, the Centre has been expanded to include a dedicated national help line with Cantonese and Mandarin-speaking telephone volunteers. This is the only toll-free, one-on-one Chinese-language diabetes information line available in Canada.

"Health information is essential"

"Our pamphlets have been translated for the Chinese community," says Iris Lui, the Association's Chinese community educator. "Health information is essential, especially for a chronic condition like diabetes that requires a lot of self-management and lifestyle changes."

Having an information line that provides support in the native language of the callers makes a huge difference.

According to Dr. Kwang Yang who helped develop several of the Centre's translated materials: "Our sole purpose is to raise awareness about diabetes symptoms, its prevention, and provide answers to the public. The Chinese-language toll-free line is one way of achieving this goal."

Cover story continued

For Courtney Riddoch, a single mom whose daughter Bree was diagnosed with type 1 diabetes, receiving an insulin pump under the Saskatchewan provincial government program has made a life-changing difference. "If my daughter didn't have funding for the insulin pump to help manage her diabetes, she would not be on it. There is no way I could afford the pump on top of her other medical supplies," says Courtney.

Yet for others, obtaining an insulin pump is not so easy. The pump costs from \$6,000 to \$7,000 – a huge expense. Without a health benefits plan or provincial government assistance program, paying for the necessary medications and supplies is financially challenging.

"The Association is a strong advocate for equal opportunity."

With the help of generous donor support, the Association is leading advocacy efforts across the country to enhance access to quality care and support for people living with diabetes. Currently, four jurisdictions have public coverage plans that include insulin pumps – British Columbia, Saskatchewan, Ontario and Newfoundland and Labrador. New Brunswick also recently announced plans for a pump program in that province.

"The Association is a strong advocate for equal access through public programs which provide support to effectively manage one's diabetes, including medications as well as insulin pumps and supplies as clinically appropriate," says Aileen.

November is Diabetes Awareness Month

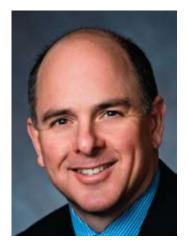
Diabetes is the leading cause of death by disease in Canada. More than **9 million** people across the country have diabetes or prediabetes.

November is Diabetes Awareness Month – a time to raise awareness about the seriousness of diabetes and the importance of diabetes prevention, treatment and management.

To learn more about how your support is helping in the fight against diabetes visit diabetes ca.

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Doug Macnamara: Adjusting to **Life with Diabetes**



For hundreds of Canadians who are diagnosed with diabetes each year, one of the biggest challenges is learning how to live with this relentless disease.

Five years ago, Doug Macnamara, from Banff, Alberta, learned that he too would be faced with this challenge. Initially, Doug was diagnosed with type 2 diabetes. But nine months later, after undergoing additional testing, he was confirmed to be type 1.

"In the week after being diagnosed, I was trying to get a handle on things and figure out how to adjust my life," shares Doug. "I spent one day quite depressed. But by the end of the day, I decided one day was enough in this state and I would take charge of my life."

Since his diagnosis, Doug has adopted a management regimen that includes daily blood glucose testing, a healthy diet and regular exercise. Doug also started using an insulin pump a year and a half ago to help him better manage his blood glucose levels.

"It is really important that we continue to educate Canadians about the need to support diabetes research."

As a volunteer and long-time consultant to the Canadian Diabetes Association, Doug is a passionate advocate for raising awareness about the seriousness of diabetes. "It is really important that we continue to educate Canadians about the need to support diabetes research and assistance programs that make a difference and lead to improved lives of those living with the disease."

Thank you for your support.

We are accountable to you. We know that your gifts are demonstrations of trust – trust that the very most of every dollar received helps Canadians with diabetes to live healthier lives, and to enable researchers in their quest to find a cure.

By investing in the Association, you can be sure that your donations are used wisely to improve the lives of people living with diabetes in your community, while we work to find a cure.



Managing diabetes

5 tips for keeping your blood glucose at a healthy level

1. Keep your portion sizes in check.

By watching portion sizes, it is much easier to keep blood glucose in the target range.

2. Keep to a regular eating schedule.

Try eating at about the same times each day. This will help to prevent your blood glucose from getting too high or too low.

3. Take your medication at the same times each day.

The food you eat makes your blood glucose go up. Diabetes medicines make your blood glucose go down. Together, when each is taken properly, they help you keep your blood glucose at a healthy level.

4. Exercise regularly.

Physical activity is an important part of the diabetes management plan. Keep an exercise schedule so that your workout routine is coordinated with your meal and medication schedules.

5. Know your numbers.

Before you begin exercise, talk to your doctor about what blood glucose levels are appropriate for you.

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Leading-edge research

Researchers expose the Achilles heel of type 1 diabetes

After almost two decades of trying to unravel the mysteries of autoimmune diseases, Dr. Pere Santamaria finally had a breakthrough that may change the future for millions of people

living with diabetes.

The curiosity-driven research of Dr. Santamaria and his team has led to a discovery and development of nanotechnology-based therapeutic vaccine for type 1 diabetes. It's a groundbreaking discovery that one day may lead to a cure for type 1 diabetes and help prevent the onset of the disease in those who are at-risk.

The nanoparticle vaccine is able to inhibit the autoimmune attack that causes type 1 diabetes without impairing the ability of the immune system to fight off infections and cancer. The next step is to advance the vaccine toward clinical trials.

mysteries "My laboratory has had a longstanding interest in understanding the mechanisms underlying the progression of the autoimmune attack against the insulin-producing pancreatic beta cells in type 1 diabetes," says Dr. Santamaria. "The goal of our studies has always been to try to find

new targets for therapeutic intervention for diabetes and other autoimmune diseases."

Although not a cure, the nanovaccine is

Although not a cure, the nanovaccine is an important advancement in the fight against diabetes and an example of how the support of donors helps to facilitate leading edge research.

Dr. Pere Santamaria is a chair and director of the Julia McFarlane Diabetes Research Centre and professor in the Department of Microbiology and Infectious Disease at the University of Calgary. He holds an operating grant from the Canadian Diabetes Association.



Dr. Pere Santamaria and his team developed a nanoparticle vaccine that may one day lead to a cure for type 1 diabetes.

Your Gifts in Action

Thanks to generous donor support, the Canadian Diabetes Association provides funding to some of Canada's most renowned scientists and clinicians who are at the forefront of diabetes research and treatment. Here are just a few of the many promising research projects your support will help to fund in the coming years:



Dr. Allison Dart, Manitoba
The improving cardiovascular complications in youth with type 2
diabetes through research (iCARE) prospective cohort study

Dr. Timothy J. Kieffer, British Columbia Islet gene therapy for diabetes

Dr. Karen M. Eny, Ontario Diet, genetics and cardiovascular disease risk factors in subjects with type 1 diabetes

For a complete list of research projects and to learn more about Canadian Diabetes
Association funded research projects visit diabetes.ca/research

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Healthy Oatmeal and Fig Muffins

Ingredients

- 175 ml (3/4 cup) all-purpose flour
- 125 ml (1/2 cup) whole-wheat flour
- 125 ml (1/2 cup) rolled oats
- 60 ml (1/4 cup) firmly packed brown sugar
- 7 ml (1-1/2 tsp) baking powder
- 2.5 ml (1/2 tsp) salt
- 1 ml (1/8 tsp) cinnamon

- 125 ml (1/2 cup) dried figs, chopped
- 125 ml (1/2 cup) walnuts, lightly roasted and finely chopped
- 125 ml (1/2 cup) Yoplait Source Stirred Plain Yogurt
- 125 ml (1/2 cup) 1% milk
- 60 ml (1/4 cup) Canola oil
- 1 large egg, lightly beaten

Makes 12 Muffins

Preparation

- 1. Preheat oven to 200°C (400°F). Put 12 medium paper baking cups in a muffin pan.
- 2. In a medium bowl, combine the all-purpose and whole-wheat flours, oats, brown sugar, baking powder, salt, cinnamon, figs and walnuts.
- 3. In a small bowl, whisk together the yogurt, milk, oil and egg.
- 4. Add the yogurt mixture to the dry ingredients and gently blend to form a soft dough. Spoon the mixture evenly into the 12 muffin cups. Bake for 25-30 minutes.

Recipe courtesy of Yoplait Source.

Nutrition Facts

Each 64 g muffin • Calories 180 • Fat 9 g • Calcium 8%* Carbohydrate 23 g • Fibre 2 g • Protein 5 g * Percentage of daily recommended intake



= \$1

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