Diabetes Discourse

Volume 6, Issue 2 **February, 2016**

Quarterly Newsletter of the Bovell Cancer Diabetes Foundation (BCDF)

This Free Newsletter is a Vital Resource for Diabetes Prevention and for anyone Living with Diabetes

Our Vision

- Enriching lives, one person at a time

Our Mission

- To enrich the lives of people living with or at risk for cancer and diabetes by providing financial resources, support, preventive and management education.

BCDF Activities Include:

- Modest grants to individuals/families affected by cancer or diabetes to enhance their quality of life
- Prevention and management education, and small-group workshops
- Advocacy and referrals to resources for individuals/families affected by cancer or diabetes
- Writing grant proposals and fundraising

BCDF relies on donations to carry out its mission. We are an incorporated, charitable Foundation in the Republic of Trinidad and Tobago. BCDF functions with volunteers only and no paid staff.

To contact us with comments, questions or articles, phone 868) 667-2576 or e-mail: adelia@bovellcancerdiabetesfoundation.org; http://www.bovellcancerdiabetesfoundation.org

Disclaimer: *This newsletter is meant to educate and inform. It is not to be used as medical advice. Please consult your doctor for medical advice.*

FIRSTCARIBBEAN INTERNATIONAL BANK "2015 *WALK FOR THE CURE*" SUPPORTS BCDF!

FirstCaribbean International Bank (Trinidad and Tobago) Ltd. supported Bovell Cancer Diabetes Foundation from its *"2015 Walk for the Cure."* The walk held October, 2015, united participants across the region who demonstrated their commitment to assist those affected by cancer. Each year, the *"Walk for the Cure"* is held to coincide with the Canadian Breast Cancer Foundation's CIBC Run for the Cure sponsored by the bank's parent company, CIBC. BCDF participated in the "2015 Walk for the Cure." The event showed that we are all working towards that moment in the future where cancer no longer has a negative impact on the lives of those around us. BCDF is extremely thankful to CIBC FirstCaribbean Bank for its support!

Express Business January 06, 2016 LIGHTER SIDE

Raising funds for a cure

CIBC FirstCaribbean's annual Walk for the Cure raised US$400,000 in 2015.

The funds raised will go towards the care and support of persons fighting cancer across the Caribbean.

Here country head/managing director of the bank's local operation, Anthony Seeraj, (from left) Lilia Mootoo, general manager, Vitas House Hospice; Nyron Bovell, media technician, Bovell Cancer-Diabetes Foundation and Ramona Pitman, supervisor, Brian Lara Cancer Treatment Centre pose for a photo during the handover of the cheques recently.

Inside This Issue

TYPE 2 DIABETES

Type 2 diabetes is the most common form of diabetes. In type 2 diabetes, your body does not use insulin properly. This is called insulin resistance. At first, the pancreas makes extra insulin to make up for it. But, over time your pancreas is not able to keep up and cannot make enough insulin to keep your blood glucose levels normal. Type 2 is treated with lifestyle changes, oral medications (pills), and insulin. When glucose builds up in the blood instead of going into cells, it can cause two problems:

- Right away, your cells may be starved for energy.
- Over time, high blood glucose levels may hurt your eyes, kidneys, nerves or heart.

Some people with type 2 can control their blood glucose with healthy eating and being active. But, your doctor may need to also prescribe oral medications or insulin to help you meet your target blood glucose levels. Type 2 usually gets worse over time – even if you do not need medications at first, you may need to later on. Some groups have a higher risk for developing type 2 diabetes than other groups. Type 2 diabetes is more common in people of African descent, Indians, Hispanics, Asians and Pacific Islanders, as well as the aged population. *Adapted from: http://www.diabetes.org/diabetes-basics/type-2/facts-about-type-2.html*

EXPLORE: BLOOD GLUCOSE TESTING

Hyperglycemia (High Blood Glucose)

Watch for symptoms of hyperglycemia and learn how to treat it.

Tight Diabetes Control

Find out whether this intense regimen of keeping glucose levels as low as possible is right for you.

Hypoglycemia (Low Blood Glucose)

Treat hypoglycemia as soon as possible

Hypoglycemia is sometimes called insulin reaction.

Dawn Phenomenon

The dawn phenomenon is a surge of hormones that the body produces daily around 4-5 a.m. People with diabetes do not have normal insulin responses to adjust for this, and may see their fasting glucose go up.

A_1C and eAG

The A_1C test gives you a picture of your average blood glucose (blood sugar) control for the past 2 to 3 months. The results give you a good idea of how well your diabetes treatment plan is working. In some ways, the A_1C test is like a cricketer's season batting average; it tells you about a person's overall success. Neither a single day's blood test results nor a single game's batting record gives the same big picture. These are some ways the A_1C test can help you manage your diabetes:

- Confirm self-testing results or blood test results by the doctor.
- Judge whether a treatment plan is working.
- Show you how healthy choices can make a difference in diabetes control.

How Does A_1C Work?

Hemoglobin, a protein that links up with sugars such as glucose, is found inside red blood cells. Its job is to carry oxygen from the lungs to all the cells of the body. Glucose enters your red blood cells and links up with molecules of hemoglobin. The more glucose in your blood, the more hemoglobin gets linked up. By measuring the percentage of A_1C in the blood, you get an overview of your average blood glucose control for the past few months. You should measure your A_1C level at least twice a year.

What is eAG?

Your A_1C test result can be reported as eAG, or "average glucose," which directly relates to your A_1C. eAG may help you understand your A_1C value because eAG is a unit similar to what you see and hear. A_1C is reported as a percent (e.g. 7%) and eAG uses the same units (mg/dl) as your glucose meters. *Continued on page 4*

LET'S TALK CANCER WITH…

Dr. Liselle Bovell

Potential Anticancer Benefits of Bitter Melon or Carilla or Kareli or Bitter Gourd

Source: www.onlyfoods.net

Cancer is defined as the unregulated growth and spread of abnormal cells. If the spread is not controlled, it can eventually result in death. Cancer is a group of diseases that can be categorized into two major types: blood cancers and solid tumors. Some types of blood cancers are: leukemia, lymphoma, and myeloma; whereas, solid tumors include prostate, breast, and colon cancers. About 1.1 million people are diagnosed with cancer annually in Latin America and the Caribbean, and it is estimated that 600,000 cancer deaths will occur in that region annually. Prostate cancer is the leading cause of cancer death among males, followed by lung cancer and stomach cancer. Among females, breast cancer is the leading cause of cancer death, followed by cervical and lung cancer. Various factors may act together or in sequence to cause cancer. These include factors, such as infections, tobacco use, unhealthy diets, inherited genetic mutations, hormones, and immune deficiencies. It is important to know, however, that cancer is a **chronic** disease. This means that typically 10 or more years often pass between the exposure to external factors and detectable cancer. Treatment of cancer usually includes surgery, radiation, chemotherapy, hormone therapy, immune therapy, and targeted therapy (drugs that interfere with specific targets or pathways involved in tumor growth). However, chemical compounds that occur naturally in plants (called **phytochemicals**) and their analogs, which are made in the lab to have a similar chemical structure, are also starting to gain popularity due to their better safety profile and potential to treat various diseases. Natural products, such as extracts from plants, have been used for centuries in traditional medicine throughout the world for the prevention, treatment, and cure of multiple diseases. Some dietary agents are already present in proposed treatments of chronic and difficult to treat diseases. One such natural product is *Momordica charantia* ("bitter melon or Kareli"), which is grown in many regions of the world including the Caribbean. The name "bitter melon" is because all parts of the plant, including the fruit, taste bitter. Parts of the plant, such as the fruit, leaves, and seeds have been shown to have medicinal properties in ancient literature. Over the last few decades, multiple scientific studies have been performed to study the effects of bitter melon (BM) in various diseases like diabetes and cancer. Kwatra et al. (2016) reported that studies found BM to be effective in many cancers by showing antitumor activity and affecting several tumor pathways:

- BM extracts reduced cell growth and prompted apoptosis (cell death) in human breast cancer cells
- The whole BM fruit and skin extracts significantly prevented cell growth and tumor cell colony formation, but the whole fruit extract showed greater effectiveness
- BM extract enhanced the effect of the doxorubicin (DOX) on reducing tumor cell growth. Pre-treatment with BM extract sensitized the colon cancer cells toward DOX. DOX is a drug used in chemotherapy
- Other studies in animal models have reported that BM also inhibits growth and induces cell suicide in prostate, pancreatic, and liver cancer cells.

The bitter melon is also being evaluated in other cancers such as cervical cancer,

leukemia and lung cancer. This plant contains many important chemicals that are thought to be involved in its therapeutic activity. Kwatra et al. (2016) concluded that even though bitter melon or kareli has exhibited potential benefit against several cancers in both cells and animal models, more clinical studies are needed to establish its effectiveness and evaluate its detailed pharmacological and toxicological profile.
Kwatra D. et al. *Curr Pharmacol Rep*. 2016; 2:34–44

Explore: Blood Glucose Testing - Continued from page 2…

The American Diabetes Association suggests an A_1C of 7%, which is an eAG of 154 mg/dl, but a more or less stringent glycemic goal may be appropriate for each individual.

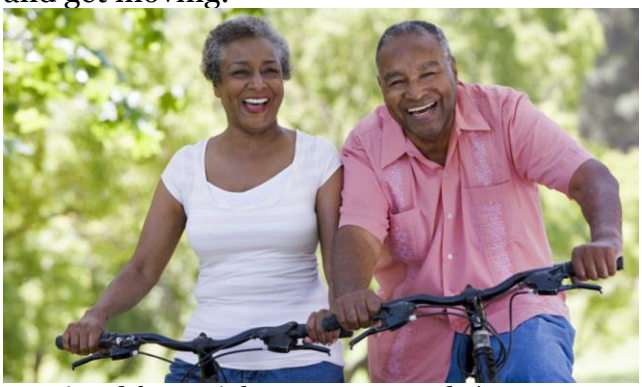
What is the Difference between eAG and the average on my monitor?

Please note that eAG is not the same average glucose level as the average of your readings on your machine. People with diabetes are more likely to check their blood glucose more often when they are low (for example, first thing in the morning and before meals), the average of the readings on their machine is likely to be lower than their eAG. Monitoring measures your blood glucose at a moment in time, whereas eAG/A_1C represent an average of your glucose levels 24 hours a day, including times when people are less likely to check their blood glucose (for example, post-meal periods of higher blood glucose). Taken from: http://www.diabetes.org

HERE, THERE & EVERYWHERE

Move More, Live Longer

For older adults, the secret to living longer may be moving more. In a study of 3,029 adults ages 50 to 79 who wore fitness trackers for a week, those who were the most active had one-fifth the risk of dying over a 5-year period compared with the least active adults. Replacing 30 minutes a day of sedentary time with light activity such as vacumming or walking, was associated with a 20% lower risk of dying over five years. **Replacing 60 minutes of TV time with a 60-minute stroll would increase a person's chance of living five years longer by 40%.** So what are you waiting for? Get up and get moving.



Reprinted from Diabetes Forecast July/August 2016
(Med Sci-Sport Exer. 2.25.2016)

Fitness First

Being physically fit in young adulthood reduces the risk of type 2 diabetes later in life. That is what researchers found when they studied more than 1.5 million 18-year-old Swedish soldiers who took physical fitness tests for the military during 1969-1997. Soldiers who scored in the top third for aerobic capacity and muscle strength were three times less likely to develop type 2 diabetes over the next few decades than those who scored in the bottom third. Also, this relationship was seen even among those who were not overweight. The findings suggest that good fitness habits should start in childhood, researchers say.

Reprinted from Diabetes Forecast July/August 2016
(Annals Internal Med 3.7.2016)

WORLD DIABETES DAY 2016: EYES ON DIABETES

Eyes on diabetes will be the International Diabetes Federation (IDF) World Diabetes Day (WDD) campaign for 2016. WDD 2016 activities and materials will promote two key messages: **• Screening for type 2 diabetes is important to modify progression of the disease and reduce the risk of complications. • Screening for diabetes complications is an essential part of managing type 1 and type 2 diabetes, and gestational diabetes (GDM).** WDD 2016 will highlight the feasible and cost-effective solutions that exist to help identify people with undiagnosed type 2 diabetes or at risk of developing diabetes in the future. IDF has estimated that globally as many as 193 million people, or close to half of all adults living with diabetes in 2015, are unaware of their diabetes. Most of these cases are type 2 diabetes. The earlier a person is diagnosed, the earlier treatment and management can be initiated, which can improve chances of preventing harmful and costly complications. A person with type 2 diabetes can live for several years without showing any symptoms, during which time high blood glucose is silently damaging the body. There is therefore an urgent need to screen, diagnose and provide appropriate care to people with diabetes. Diabetes is a leading cause of cardiovascular disease, blindness, kidney failure and lower limb amputation. More than 33% of all people living with type 1 and type 2 diabetes will develop some form of eye disease during their lifetime. Maintaining blood glucose, blood pressure and cholesterol levels as close to normal as possible can prevent or delay these complications. Many complications can be detected at an early stage through screening, enabling more effective, timely treatment which is associated with the delivery of better outcomes. WDD 2016 will highlight the importance of integrating screening for diabetes complications into ongoing primary care for people living with diabetes.

Reprinted from Diabetes Voice 61:6, 2016

BANANA TIP

Green bananas are "starchy", but the type of starch they contain is resistant starch. Resistant starch is a type of starch that is not digested in the same way as most starches. Instead of being broken down, it passes through the intestines unchanged – which gives it the characteristics of an insoluble fiber. Foods high in resistant starch also increase insulin sensitivity, which can help people with type 2 diabetes better control their blood sugars. However, if you eat green bananas, do so in moderation.

BUY OUR BOOKS & SUPPORT US

BCDF is 100% volunteer in every sense of the word; we have no subventions, no sustainable sponsors. We fund-raise to conduct all our activities. Please help us stamp out diabetes by buying our books.

- Diabetes Education and Prevention
- Diabetes Workbook

CHILDREN'S CORNER

TRUE OR FALSE:

Eating too much sugar causes diabetes

FALSE: When kids get type 1 diabetes, it is because their bodies cannot make insulin anymore. It has nothing to do with eating too much sugar. When children get type 2 diabetes, there might be a connection because eating too much sugar (or foods with sugar, like sweets or regular soda) can cause weight gain, and weight gain can lead to type 2 diabetes.

TRUE OR FALSE:

People with diabetes should not exercise

FALSE: Exercise is important for all children— with or without diabetes. Exercise has many benefits. It keeps kids healthy and fit, and also helps them balance their blood sugar.

TRUE OR FALSE:

Kids with diabetes can never eat sweets

FALSE: Kids with diabetes can eat sweets — as part of a balanced, healthy diet. Like everyone else, a person with diabetes should not eat too many sweets because they may cause damage to teeth and they do not have many vitamins and minerals.

TRUE OR FALSE:

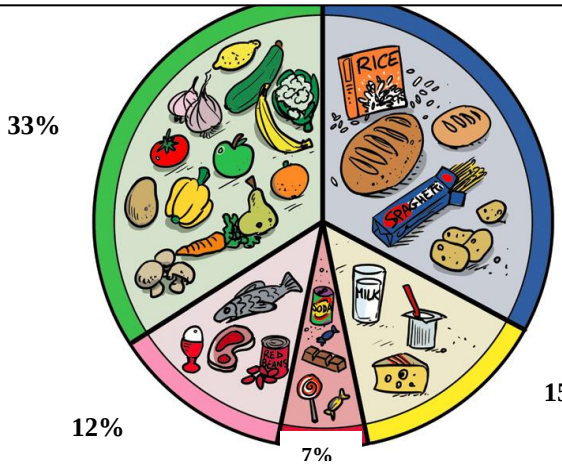
You can catch diabetes from another person

FALSE: Diabetes is not contagious, so you cannot catch it from someone who has it.

Common Signs of Type 2 Diabetes

THE EATWELL PLATE

Remember these proportions in your daily meals



CARPHA: CHILDHOOD OBESITY IN CARIBBEAN

The Caribbean Public Health Agency (Carpha) yesterday warned that the region is in the midst of a childhood obesity epidemic, despite the dramatic improvement in the health status of young people in the Caribbean over the past decades. Carpha said statistics show that at least one in every five children carries unhealthy weight and risks developing chronic diseases (NCDs) like diabetes and cardiovascular ailments later in life. It is said that this will result in higher lifetime health costs for the individual and the state. "Although our region is not facing a unique public health challenge, it has the unenviable distinction of having rates of prevalence that are close to or above the global average," Carpha said, noting that it is for this reason it brought together a regional task force to develop a plan of action to address childhood obesity and provide a comprehensive public health response. "We have set ourselves an ambitious goal, to halt and reverse a rise in child and adolescent obesity in the Caribbean by 2025," said Carpha. "To achieve this, we will focus on technical cooperation with our member states to support the implementation of specific measures, paying attention to reducing obesogenic environments."Carpha said it has presented its 2014-2019 Plan of Action for Promoting Healthy Weights in the Caribbean: Prevention and Control of Childhood Obesity to the Ministry of Health in Dominica. Regional data show Dominica, like most other countries, to have a problem with increasing body mass index in children and adults, although less so than most of its Caribbean neighbors. Carpha anticipates that by 2019, regional governments, with assistance from Carpha, will be able to provide children with healthier options for physical activity and healthy eating; encourage healthy eating patterns; and encourage healthier dietary choices and empower communities to embrace active living and healthful eating. Carpha also hopes that regional governments will provide parents and children with accurate information about food, nutrition and exercise to enable informed decisions; provide necessary care and support to our children affected by overweight/obesity, and ensure that they are safeguarded from the bias and stigmatisation associated with their condition; and ensure that systems within government have the capability to mount effective responses and that multi-sectoral cooperation is fostered. "The NCD epidemic is human-made, fuelled by food insecurity, economic and socio-cultural factors in the region. Therefore, effectively addressing this complex problem calls for a sustained, multi-sectoral response involving the public, private, health professional and non-governmental sectors," Carpha said, adding that together with the Caribbean Community (Caricom) and the Pan American Health Organisation (PAHO) it will work with member states to address this challenge to children. CARPHA said the Healthy Weights Action Plan will be circulated to all stakeholders in the region and will also be available as a reference document to students and all parties interested in promoting healthy weights in the Caribbean.

Reprinted from Trinidad Express; published on March 16, 2015,

More than one year later - BCDF is asking for the progress status of this initiative from Carpha

Download our BCDF Android App. We have made an Android application to help you keep up to date with our activities. The app works with Android 4.0+. Check out our website http://www.bovellcancerdiabetesfoundation.org/ for our app, and to donate - help us stamp out diabetes!

Please call us to donate!!!

BCDF 2016 RAINBOW CALENDAR OF EVENTS

November 2015 - June 2016	**Complimentary Foot Care Training of Lay Foot Care Attendants** ***"So in Love with my Feet" Project***
January - December	**Life for a Child Project** Patterned after the International Diabetes Federation's program, this project meets the immediate needs (testing strips, assistance and support for doctors' visits, monitoring and education) of a child with diabetes.
18th January	**Application for First Quarter Funding Deadline - Completed** Our mission is enriching lives of people living with cancer and diabetes by providing financial and educational resources
February	**Diabetes Discourse (Late Issue)** Distribution of the free Quarterly Newsletter of the Bovell Cancer Diabetes Foundation **Diabetes Share-Line begins (Postponed)**
March	**Small Group Workshops (Begin April, 2016)** Hands-on workshops that will provide current information to help participants learn about cancer and diabetes prevention and education. **New round of *"So in Love with my Feet" Project begins***
11th April	**Application for Second Quarter Funding Deadline (Completed)**
5th – 6th April	**"So in Love with my Feet" Project (Completed)**
23rd April	**Breakfast and Diabetes Awareness Dialogue Morning** – Market Square, Scarborough, Tobago (Completed)
May	**Small Group Workshops (Completed)** Hands-on workshops that will provide current information to help participants learn about cancer and diabetes prevention and education. **"So in Love with my Feet" Project** **Diabetes Discourse**
June	**Small Group Workshops** Hands-on workshops that will provide current information to help participants learn about diabetes prevention and management ***"So in Love with my Feet" Project***
18th July	**Application for Third Quarter Funding Deadline** **"So in Love with my Feet" Project**
August	**Diabetes Discourse** **"So in Love with my Feet" Project**
17th October	**Application for Fourth Quarter Funding Deadline** **Primary School World Diabetes Day Poster Competition** Poster design is an expression of creativity and technical aptitude. BCDF presents its sixth annual primary school poster competition for the occasion of World Diabetes Day 2016.
October/November	Cancer Education Workshop
November	**Diabetes Discourse** **Eighth Annual Diabetes in the Limelight Jamboree**
11th November	BCDF joins the World Diabetes Day campaign emphasising diabetes education and prevention **New round of *"So in Love with my Feet" Project begins***