

# CV network

THE OFFICIAL BULLETIN OF THE INTERNATIONAL ACADEMY OF CARDIOVASCULAR SCIENCES **SPECIAL EDITION OCTOBER 3, 2013**

**PUBLISHED WITH THE ASSISTANCE OF THE MYLES ROBINSON MEMORIAL HEART TRUST  
and ST. BONIFACE HOSPITAL FOUNDATION**

To celebrate World Heart Day in Winnipeg on Oct.3, 2013, we have compiled a special edition of CV Network which gathers appropriate articles from recent issues of our online quarterly bulletin. We are deeply honoured to be able to celebrate by sharing the wisdom of World Heart Federation President-Elect Dr. Salim Yusuf on the subject about which he is probably the world's leading cardiologist "MOST PREMATURE HEART DISEASE IS PREVENTABLE". His talk will be the highlight of our MANSHIELD CONSTRUCTION HEART HEALTH LUNCHEON which is the International Academy of Cardiovascular Science's launch of the Manitoba Heart Health Think Tank which has become a powerful collaboration with the St. Boniface Hospital Foundation, led by Chuck LaFlèche and the Myles Robinson Memorial Heart Trust. As well support is forthcoming from the Cardiac Sciences Program, Institute of Cardiovascular Sciences, Heart & Stroke Foundation of Manitoba, the Reh-Fit Centre, the Rady JCC, the St. Boniface Women's Heart Health Initiative and the Mature Women's Centre at Victoria Hospital and other interested members of the community. Funds raised by the Luncheon will support the launch of this collaboration to encourage individuals to become engaged in protecting their own heart health. Dr. Yusuf's talk (which will be online in a few days through our web site) as well as this compilation of information will offer an extraordinary opportunity for our audience to re-focus their care of their bodies.

The IACS is most appreciative of the team effort by the staff of the St. Boniface Hospital Foundation, the Directors of the Myles Robinson Memorial Heart Trust, other members of our MB Think Tank Committee, attendees at the Luncheon, Sponsors including Lakeview Management; QUALICO; Heart & Stroke Foundation; Esther and Sid Halpern (whose effort and commitment was beyond belief); Duxton Windows; Inn at the Forks/Norwood Hotel; Ambassador Mechanical; St. Boniface Clinical Research; Winnipeg Convention Centre; Ben Moss Jewellers (for their door prize donation); Can-Mar Grain Products (for their donation of Flax); Ettie and Earl Robinson; Peter Kaufmann; and most importantly, Justin Bova of our Luncheon Sponsor MANSHIELD CONSTRUCTION



## IACS Fellow Salim Yusuf Elected by World Heart Federation

news release from WORLD HEART FEDERATION

### Global Leaders in Cardiovascular Disease Health – Profs. K. Srinath Reddy and Salim Yusuf – Poised to do Battle Against the World's Number One Killer



Geneva, 28 January 2013 – The election of two of the world's leading experts in cardiovascular disease (CVD) prevention and control has given the World Heart Federation powerful leadership, and a strategic advantage, in ensuring commitments made by governments to reduce non-communicable disease (NCD) deaths by 25 per cent by 2025 are delivered on. CVD accounts for about one-third of deaths worldwide and are the leading cause of deaths and disability. Prof. Srinath K. Reddy, MD, DM, MSc took over as President and Prof. Salim Yusuf, DPhil, FRCP, FRSC as President Elect, effective as of 1 January.

Immediate Past President, Prof. Sidney C. Smith Jr, MD said "I am honored to have led the World Heart Federation during one of the most exciting periods in the history of CVD health. Guiding the success of the World Congress of Cardiology and participating in the United Nations High-Level Meeting on the Prevention and Control of NCDs in 2011, together with Heads of State, to help shape the global health agenda were particular highlights of my presidential term. The organization

could not be handed over to more capable hands. Professor Reddy is recognized internationally as a global thought leader on issues associated with public health and CVD, and is a highly respected CVD leader in India. While Professor Yusuf born in India and now of Canada, is the second most read and talked about scientist in the world in a ranking by Science Watch. Professors Reddy and Yusuf's thought leadership and pioneering approaches to CVD science and its direct application to health policies

will strongly position and enable the World Heart Federation to combat the world's number one killer – CVD – which causes 17.3 million deaths each year. Their expertise will lead to new strategies, not simply follow existing approaches.”

Having trained in cardiology and epidemiology, Prof. Reddy is regarded as a global leader in preventive cardiology and a thought leader in global public health and is currently the President of the Public Health Foundation in India. He has been a researcher, teacher, policy enabler, advocate and activist who has worked to promote cardiovascular health, tobacco control, chronic disease prevention and healthy living across the lifespan. He has played a particularly active role in advancing the agenda of tobacco control and was awarded the World Health Organization's (WHO) Director General's Award for outstanding contributions to global tobacco control in May 2003. He is a Consultant to the WHO and the World Bank and chairs the health section of the United Nations Sustainable Development Solutions Network (UNSDSN) which acts as the advisory group to the UN Secretary General's panel on the Sustainable Development Goals, which will define global development goals when the current Millennium Development Goals expire in 2015. Prof. Reddy is also the first Indian president of the World Heart Federation.

Prof. Reddy said “The World Heart Federation's strength lies in its global network of 200 member organizations. Our efforts to advocate for policy change, increase public awareness of CVD risk through campaigns such as World Heart Day and advance scientific knowledge, would all be in vain if it was not for their commitment to drive change at a country level. The ambit of heart health must extend from the hub of global policy to the throb of a person's pulse. From tobacco control to promotion of healthy diets and physical activity, national and global policies must encourage and enable people to practice healthy habits. Health services should enable risk reduction and cost-effective management of disease at all levels of health-care. The World Heart Federation will catalyse these policies at the global level and assist national efforts through capacity building and collaborative research, and must align its efforts and those of its members around the global 25 by 25 target, approved at WHO last year, to reduce premature mortality from CVD and other NCDs by 2025. I will particularly prioritize action on high blood pressure and tobacco which are the foremost risk factors for global disease and disability, and especially focus health promotion and disease prevention among young persons and women.”

Prof. Yusuf is Professor of Medicine and Executive Director of the Population Health Research Institute at McMaster University and Hamilton Health Sciences, where he has established an international programme of research in CVD and prevention involving 85 countries. These studies have established the roles of ACE-inhibitors in CVD prevention (the HOPE study), dual antiplatelet therapies in acute coronary syndromes (the CURE study), novel antithrombotics and the appropriate place of invasive interventions. His pioneering epidemiologic work involving the INTERHEART and INTERSTROKE studies in over 60 countries have identified that the majority of risks of both conditions are attributable to a few common risk factors and are similar in impact worldwide. His ongoing study (PURE) explores the role of societal changes in the development of CVD and other NCDs. It involves 400,000 people from 628 communities in 17 high-, middle- and low-income countries and is unparalleled in its depth and breadth. These studies have led to better understanding of the role of societal changes on behaviours and risk factors, and how they lead to CVD and other NCDs.

Prof. Yusuf said “Governments have started to recognize the enormity of the problem posed by NCDs, including CVD on both individuals and economies. The 25x25 framework provides a road-map to reduce CVD by 25 per cent by 2025. Developing global capacity to implement evidence-based practices in prevention through strengthening healthcare systems is critical. Additionally, promoting the emergence of a new breed of cardiologists and related professionals, who provide leadership in enhanced implementation of proven and simple preventive and treatment strategies, can make a very large impact worldwide. I am committed to working together with the World Heart Federation board, its member organizations, partners, staff and supporters and with a new generation of emerging leaders worldwide to realizing the vision that within two decades we can reduce CVD burden by over 50 per cent”.

Prof. Salim Yusuf's presidential term will start in January 2015.

## About the World Heart Federation

The World Heart Federation is dedicated to leading the global fight against heart disease and stroke, with a focus on low- and middle-income countries, via a united community of more than 200 member organizations. With its members, the World Heart Federation works to build global commitment to addressing cardiovascular health at the policy level, generates and exchanges ideas, shares best practice, advances scientific knowledge and promotes knowledge transfer to tackle cardiovascular disease – the world's number one killer. It is a growing membership organization that brings together the strength of cardiac societies and heart foundations from more than 100 countries. Through our collective efforts we can help people all over the world to lead longer and better heart-healthy lives. For more information, please visit: [www.worldheart.org](http://www.worldheart.org); [twitter.com/worldheartfed](https://twitter.com/worldheartfed); [facebook.com/worldheartfederation](https://facebook.com/worldheartfederation)

**Editor's note:** Prof. Yusuf was elected to be a Fellow of IACS very shortly after IACS was formed in 1996. In 2006, he was a featured speaker at our first Symposium on the “FUTURE OF HEART HEALTH”. His superb talk “Prevention Will Reduce Heart Disease” was recorded and is available on our DVD package. In 2011, he received the Medal of Merit – the highest honour of the Academy for his outstanding achievements in cardiovascular education and research. He serves actively as an Advisor for the IACS Global Network to Fight Cardiovascular Diseases.



## Dr. Naranjan Dhalla

by Bill Peters, Winnipeg, Canada

"It is a fundamental property of all forms of life to adapt to changes in environment." So begins the preface of *Cardiac Adaptations* (Springer), a 465-page tome focusing on molecular and biochemical mechanisms involved in modifying myocardial characteristics in health and disease. It is one of 3 books that Dr. Naranjan Dhalla, Distinguished Professor of Physiology, University of Manitoba, and Director of Cardiovascular Developments, St-Boniface Hospital Research, recently co-edited with international stars of cardiac research from Canada, the USA, Japan and the Czech Republic. And while adapting to change is the theme of this book, it also plays a large part in Dhalla's emergence as an icon of heart research – not only in his adopted hometown of Winnipeg or his birthplace India, but in the world.

"I had to adapt when I came to Winnipeg in 1968" says Dhalla. "I was somewhat different as a new immigrant from India. How-

ever, I always had extraordinary friends - people of great stature in science – who helped me out. When I became President of the Society (International Society for Heart Research, or ISHR) they said I would have to be more accepting of people and their ideas. Not push my agenda, but rather let others say what they have to offer. And that is when my own process of adaptation started."

Dhalla left India to begin his career in the United States in 1961, and came to Winnipeg from St. Louis in 1968 to join the University of Manitoba's Faculty of Medicine. Since then he has been honoured with a bust at the Winnipeg Citizens Hall of Fame, received the Order of Manitoba and the Order of the Buffalo Hunt from the Province of Manitoba, is a member of the prestigious Order of Canada, and a Fellow of the Royal Society of Canada.

"Dr. Dhalla's leadership has laid the foundation for the now established international reputation that the University of Manitoba and St. Boniface Hospital have as the leading research centre in cardiovascular sciences," said Dr. Digvir Jayas, Vice-President (Research and International) and Distinguished Professor. "His strength and resilience provided the impetus needed to put the Institute on the global map as a focal point for the world's cardiovascular research community."

**"I suppose leadership at one time meant muscles; but today it means getting along with people."**

*- Mahatma Gandhi*

On Wednesday, June 16, 2010 Dhalla unveiled the statue of Mahatma Gandhi which now graces the path to the Canadian Museum for Human Rights. Donated by the Indian government at Dhalla's urging, the statue was stored at St. Boniface Hospital Research Centre until its foundation could be built. Some would say Dhalla, with his philosopher style and manner, invites comparison to his famous countryman. Dhalla bristles at the comparison, then reflexively waxes philosophic... "Gandhi was a person who cannot be described in a few words. You see, there are very few people whose work is of that caliber that moves people. We scientists work very hard to create 'building blocks' for some architect to put together. One day someone smarter than me will come along and create a building out of these blocks we have made".

Through the years, Dhalla has published more than 600 full length papers in refereed journals and 161 papers in books and monographs. His research work has been cited more than 14,000 times and he has now edited 45 books on various aspects of the cardiovascular system. He has been an invited speaker at more than 300 national and international conferences and 200 institutions. He has trained more than 160 graduate students, postdoctoral fellows and visiting scientists. In his capacity as Secretary General and President of the ISHR, he was engaged in promoting the scientific basis of cardiovascular medicine for 30 years. He has been Editor-in-Chief of the major international journal *Molecular and Cellular Biochemistry* for the past 25 years and is also serving as Executive Director of the International Academy of Cardiovascular Sciences – founded by Dhalla in 1996 and established as the global headquarters in Winnipeg.

"Dhalla has built a world-class center of excellence in heart research. And like the Grey Nuns before him, he was a vital force to be reckoned with. His leadership was characterized as was theirs by a sense of purpose, a clear vision, a willingness to take risks and above all a desire to help others" says Dr. Henry Friesen, whose scientific achievements are as legendary. The Manitoba endocrinologist is also a Distinguished Professor of the University of Manitoba, also achieved the Order of Canada, and as former President of the Medical Research Council of Canada, shares many similar aims and interests. "Dhalla and his team of creative scientists have continually moved the boundaries of knowledge to bring hope through research discoveries that provided greater understanding and better recognition of the fundamental causes of heart disease. When a visiting Nobel Laureate to St. Boniface was asked how he would fashion a newly developing Research Centre, he said simply "I would replicate the Dhalla model". As a



citizen of the world, his proud record of achievement has brought great honor and distinction to the man; but equally his contributions have brought international recognition and great distinction to St. Boniface Hospital, to Manitoba and to Canada. His scientific contributions, his humanity and now his legacy will brighten the flame of hope and healing that the Grey Nuns lit when they founded St. Boniface Hospital on the banks of the Red River."

**"The best way to find yourself is to lose yourself in the service of others.**

**Man becomes great exactly in the degree in which he works for the welfare of his fellow man."**

*- Mahatma Gandhi*

Says Dhalla, "In research, all you do is learn. You do an experiment, gain some observations, you accumulate some data and make some analyses - right, or wrong. After that it is important to share your knowledge with other people. There is no sense in keeping a lamp in a cubby hole; bring it into a room so it can help others see."

Initially, Dhalla wanted to be a film director and wrote his first manuscript in India before he was 18. "In a way, I am doing what I set out to do. I think what I am doing is also producing a film. I wanted to be a good scientist, but circumstances put me in the position to be a director. In fact the seed of directorship was sewn in St. Louis (1968), when I was given the assignment to evaluate 32 universities, and produce a report. I think that experience finished my career as an actor, and so I became a director. And in doing so, I have trained extraordinary individuals who have become much better than me. In this way my whole life has been a film, and it has been a profound experience."

Major discoveries, or "eurekas" if you will, are scarce in the world of basic cardiovascular research to which Dhalla has dedicated his life. Given the seemingly eternal pursuit of answers to the infinite questions of the human heart, perhaps Gandhi had this in mind when he said **"Glory lies in the attempt to reach one's goal and not in reaching it"**.

Dhalla does not appear to concern himself as much with achieving the ultimate goal of curing heart disease, than in helping others adapt to the rapid changes in technology and communication that challenge today's young investigators. "Modern technology has changed tremendously and we have made tremendous progress. It is absolutely essential that the cardiovascular physicians of tomorrow should know how to adapt - knowing what was done in the past, what is being done currently, and what needs to be done in the future. I feel that there has been a stalemate over the past few years, and I think the solution lies in getting these very talented people together to discuss these challenges."

"I have a saying on the door leading into my office," says Dr. Grant Pierce, Executive Director of Research for St Boniface Hospital and a Professor of Physiology at the University of Manitoba. "It reads: 'You have the rest of your life to remember but what you have to remember depends upon what you do today.' Dr. Dhalla has much to remember because he has done so much. He continues to be one of our most productive scientists - editing three books is just one example. He has made the rest of us adapt to the idea that there is no age when a career in science ends but it is only dependent upon your willingness to work hard and think creatively. He continues to do that with an enthusiasm that has no equal."



Statue of Gandhi which graces the path to the  
CANADIAN MUSEUM FOR HUMAN RIGHTS  
*Photo by Al Dueck*

#### EDITOR'S NOTE:

The titles and editors of the above-mentioned books are:

Cardiac Adaptations: Molecular Mechanisms. Ed. by B Ostadal and N S Dhalla, Springer Science+Business Media, LLC, New York

Cardiac Remodeling - Molecular Mechanisms. Ed. by B I Jugdutt and N S Dhalla, Springer Science+Business Media, LLC, New York

Biochemical Basis and Therapeutic Implications of Angiogenesis. Ed. by J L Mehta and N S Dhalla, Springer Science+Business Media, LLC, New York

# WHAT IT'S ALL ABOUT

**EDITOR'S NOTE:** As we have worked for some time on this article, we were surprised to see The Globe and Mail Front Page Headline Story about how Michael Posner, who was a writer for The Globe and Mail, had ignored a mild heart attack and then required triple cardiac bypass surgery.

The article can be found at:

<http://www.theglobeandmail.com/life/health-and-fitness/health/how-michael-posner-suffered-heart-disease-and-escaped-with-his-life/article14174603/>

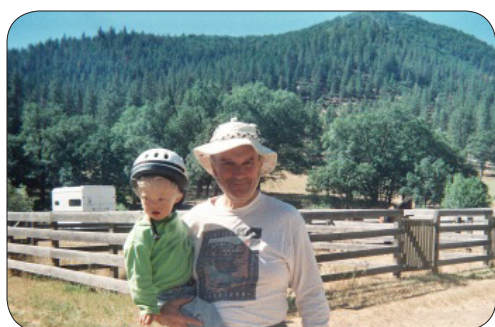
## By Ivan Berkowitz, Winnipeg, Canada

In 1965, my family began to learn the hard way that heart diseases were BAD. We lost my uncle who had collapsed in his doctor's office. The next year my mother was immobilized in hospital; we were told "she looks like she is going to have a heart attack"; and she died that day. In a continuing series of tragedies, heart attacks took my father, another uncle, my mother's cousin with whom we were very close, two fathers-in-law, a tragic loss one morning of our friend who had been treated for breast cancer but was felled by a blocked artery and my special friend Myles Robinson in whose memory we created a fund which we built to \$500,000. We have been able to help I A C S, then on Dec. 20, 2012, we concluded an agreement to donate the funds to St. Boniface Hospital Research with the very specific condition that our Directors continue to administer the distribution of funds.

I have learned that CVD Research and translational training have made it possible now for people to survive even more dangerous conditions and carry on to healthy and fulfilling lives.

The most intimate for me was the experience of my grandson Christopher.

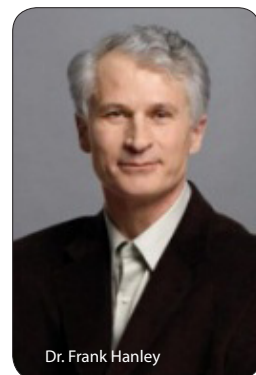
When he was born, he was rushed into intensive care where they discovered he has Down syndrome and, as is often the case, he had a hole in his heart. I was able to build possibly the best team in history to study the DVD of the echo of his heart and advise on his treatment including Drs. Lois DeBakey, Sir Magdi Yacoub, Allan Menkis, Jamil Tajik and Navin Nanda. At home, in California, Christopher was also blessed by the care a number of great people. Their assessments led to the conclusion that he required surgery to close the hole which was growing. Fortunately the California system made available one of the best pediatric cardiac surgeons in the world – Stanford's Dr. Frank Hanley. Through a 3 cm incision, he was able, as I am told,



to provide the only cardiac treatment which completely fixes a problem. Indeed Christopher is quite amazing as evidenced by his conducting an orchestra of their friends which he requested for his 6th birthday - you can enjoy it on my blog: <http://factsaccordingtoivan.blogspot.ca>

As I have accumulated information for this article, I am delighted that I was able to chat with one of Winnipeg's most precious assets, Kathleen Richardson who is a Canadian philanthropist and supporter of the arts. It is amazing that she sounds so vigorous and continues to be so full of optimistic enthusiasm. She told me that in 1980, she underwent successful surgery to replace a heart valve. Subsequently, several people asked why she hadn't gone to Minneapolis or Dallas where she would have had excellent surgeons and the best care. She always replied that there were surgeons here that were the equal or better than those anywhere.

Her surgeon at St. Boniface Hospital was Dr. Morley Cohen. He was born at Winnipeg on November 18th, 1923. Dr. Cohen received his undergraduate and medical school education at the University of Manitoba (1948). He then went to the University of Minnesota for post graduate surgical training, completing his residency and PhD in Surgery before returning to Winnipeg in 1955. He joined the Department of Surgery at the University of Manitoba where he performed Manitoba's first open-heart surgery in 1959. As the driving force behind the introduction of cardiac surgery to the Province of Manitoba, he served as head of the Division of Cardiothoracic Surgery from its inception in 1967 to 1984. He retired in 1987. In 2002, in recognition of his contributions to the province's medical community, he received the Queen Elizabeth II Golden Jubilee Medal. He died at Winnipeg on 18 August 2005.



Dr. Frank Hanley

Kathleen changed her post-op lifestyle, diet and engaged in caring for her own heart health. Obviously, her health 33 years later is proof of "WHAT IT'S ALL ABOUT" right here in Manitoba.

I recently read about Kristin Millar, who was just 18-years-old when she was diagnosed with heart disease, in a publication of the St. Boniface Hospital Foundation:

The person in the front of the canoe in this photo is Kristin Millar. The remarkable thing about this scene is that Kristin was attached to an LVAD (a Left Ventricular Assistive Device) – a pump that does the work the heart does for most of us, without our thinking about it much. [photo by Kathy Stinson] <http://www.cbc.ca/news/canada/manitoba/story/2013/01/23/mb-terry-macleod-bypass-surgery-manitoba.html>





“During a regular workout, I suddenly collapsed. This had never happened to me before. I immediately met with my doctor, and received news that would change my life forever,” says Kristin. Kristin was diagnosed with hypertrophic cardiomyopathy, a serious heart condition that can cause sudden death.

Despite her condition, she continued to live a healthy, active life until a few years later when she began to develop flu-like symptoms. ‘I began to feel nauseated, weak, and tired,’ says Kristin. ‘I couldn’t even climb the stairs to my apartment. I thought I was coming down with the flu. After six weeks of symptoms, I realized it was much more serious.’

During a routine visit to St. Boniface Hospital, Kristin went into cardiac shock. Her heart was functioning at less than six per cent; she had no measurable blood pressure; her organs were failing. St-Boniface Hospital’s incredible cardiac team saved her life by implanting a left ventricular assist device (LVAD) into her heart. For two years, the LVAD pumped blood throughout Kristin’s body, keeping her alive until she could receive a heart transplant. That day finally came in January 2012. ‘I finally got the phone call I had been waiting for,’ says Kristin. ‘I heard the words I had been hoping to hear for two years: Kristin, we have a heart for you.’ After successful heart transplant surgery in Ottawa, Kristin immediately returned to St. Boniface Hospital, where staff were there post-surgery to help her recover from the operation.

Three years after her life-saving surgery, Kristin is an accomplished public speaker, and recently received a B.A. in Sociology from the University of Winnipeg. She is currently enrolled in Red River College’s Creative Communications program and also works with Literacy Partners, a not-for-profit aimed at supporting learners and practitioners in their efforts to improve literacy and essential

skills in Manitoba.”

I also have a link to an interview with Kristin on our web site: <http://www.cbc.ca/news/canada/manitoba/story/2013/01/23/mb-terry-macleod-bypass-surgery-manitoba.html>



Gary Bachman



Peter Kaufmann

With over 35 years experience, Gary Bachman, a long time Winnipegger, is not just a real estate professional, he is a professional negotiator, an entrepreneur and a good listener. He has the unique ability to apply common sense solutions to business and real estate issues. Undoubtedly, the pressures of that career contributed to problems and Gary had open heart surgery. But it has not slowed him down. Indeed, his surgeon Alan Menkis chuckles that Gary is his first patient who was talking as soon as he awoke from the operation.

Local realtor Peter Kaufmann who earlier endured stressful careers as a grocer and municipal politician shared with me: “I had the heart attack in my friend’s cottage on McKenzie Portage on Lake of the Woods. I drove myself to the Kenora Hospital. And even though it was the May long week-end two years ago (the hospitals were busy ) I was transported by air ambulance to Winnipeg. And got to the St. Boniface Hospital at 6:00 P.M. and the life-saving procedure was underway. When I woke up the nurse showed me the result of the stent that opened up one of my main arteries that had been completely blocked. Four ambulances in one day and a miraculous procedure later ... I am very grateful for the terrific service and care provided.”

Sheila Wolfe has always been slim, active and healthy BUT she developed blockages in her arteries and needed open-heart surgery. She said: “Just after my heart surgery I imagined that I would have to change my lifestyle. Before my cardiac event I was a very active senior. I was an active golfer and enjoyed many energetic activities with my four grandchildren. My husband and I also had a full social calendar. Six years have passed since my surgery and I can say that I am even more active and involved than I was before having my surgery. I have the deepest appreciation of my good health and I am indebted to the care and treatment that I received as a patient of the St. Boniface Cardiovascular Unit and for my physician, Dr. Wayne Poon.”

Sid Halpern spent too many years working in the clothing industry – long hours, high stress and no thought of healthy living. He has become my “Poster Boy” for secondary prevention (to avoid further heart problems). I asked Sid to share his epiphany:

“Sixteen years ago, at age 63, when I was diagnosed with quadruple artery blockages, (the main “widow’s artery” 95%) was the luckiest and happiest day of my life, in retrospect, that was my epiphany moment to wake up from the arrogance of invincibility, the false illusion of immortality and to start smelling the roses. That was the moment of introduction to the wonderful Health Care System in Manitoba: Dr Sheldon Permack – my family doctor who alerted me; Dr John Rabson – my cardiologist who diagnosed the illness and recommended; Dr Alexander Hamilton – the cardiac surgeon whose excellence discharged me from HSC in four days, and whose 1% mortality bested that of The Minneapolis Heart Centre’s 2.5%; the Step Down Nurses who “cared for me better than my mother would have”; the Reh- Fit Centre who educated me and motivated me to alter my life style and enjoy the best Golden Years of our lives; and Esther Halpern – MY gorgeous wife – emotionally, physically and strategically whose unconditional love, with my family, nursed and nurtured me back to excellent health.

I thank them each and every day.

February 16 1999, the day of my surgery, was the date my life changed and my lifestyle has become one of great pleasure and a goal of developing a quality as well as quantity to enjoy the third quartile from age 65 to 98 and then I will slow down a bit to enjoy the fourth quartile from 98 to 120. My current lifestyle of a balanced exercise regimen, balanced diet, good social interaction, and great family relationships and interactions has resulted in a lifestyle that I look forward to daily, rising at 6 AM with enthusiasm and energy and optimism.

My results to which I can attest include:

- A fitness level that enables the performance of my exercise routine with a minimum of exertion and effort – it’s actually so enjoyable and addictive that I now do it 5 days a week for 1 ½ hours each of those days.
- A productivity level that I know is at least 50% higher than when I worked full time, and is reflected in results in the

businesses I still attend to

- An energy level that enables– both intellectually and physically – to interact with my grandchildren and children – resulting in marvelous pleasurable experiences
- With the capacity in my energy I am able to spend many pleasurable hours in volunteering:
  - Mentoring young business people
  - Leading discussions with residents in The Simkin Centre Personal Care Home
  - Co- Chairing the fund raising for two organizations celebrating their 50th Anniversary
  - Assisting two young people in career counselling

And my most rewarding project:

- Being asked by my very good friend Ivan Berkowitz, the Heart Health Scholar of the International Academy of Cardiovascular Sciences, and Dr. Naranjan Dhalla to participate in a Think Tank to develop heart health prevention strategies and to co-chair



the annual Harold Buchwald Heart Health Luncheon to remember a very dear friend who counselled me through my surgery .I can honestly declare that I am in the happiest period of my life, enjoying life beyond my wildest dreams with my wife of 55 years. I wish the same for all my friends, whom I encourage and motivate to follow my lead. Not only did it result in Heart Health, but almost all arthritic, bursitis and sciatica pain has disappeared."

**Let there be no question that Sid Halpern embodies "wellness" as defined by the WORLD HEALTH ORGANIZATION: "Wellness is an optimal state of health. It concerns a person's individual health physically, mentally, emotionally and spiritually and also their role in society and fulfilling expectations in their family, community, place of worship, workplace and environment".**

I have been blessed by Sid's total commitment to honour our mutual friend Harold Buchwald at our annual Heart Health Luncheon . Sid is again the Co-

chair for our annual Luncheon sponsored by Manshield Construction on Oct.3 at the RBC Convention Centre Winnipeg highlighted by our 5th Lecture by Dr. Salim Yusuf who will address the subject on which he is probably the world's leading cardiologist:

### **"MOST PREMATURE HEART DISEASE IS PREVENTABLE"**

Dr. Yusuf, a cardiologist who did his post-doc as a Rhodes Scholar at Oxford, is President-Elect of the World Heart Federation and Professor of Medicine and Executive Director of the Population Health Research Institute at McMaster University and Hamilton Health Sciences, where he has established an international program of research in CVD and prevention involving 85 countries.

He is participating the International Academy of Cardiovascular Science launch of a Manitoba Heart Health Think Tank for which the Luncheon will be the first initiative in a powerful collaboration with the St. Boniface Hospital Foundation, led by Chuck LaFlèche and the Myles Robinson Memorial Heart Trust. As well support is forthcoming from the Cardiac Sciences Program, Institute of Cardiovascular Sciences, Heart & Stroke Foundation of Manitoba, the Reh-Fit Centre and Mature Women's Centre at Victoria Hospital.

All funds raised will support the launch of this collaboration to encourage individuals to become engaged in protecting their own heart health. Learning from Dr. Yusuf is a good way to start!



An outstanding addition to the Luncheon program is our M C. CBC Manitoba's beloved morning man Terry MacLeod. Terry is recovering from a quintuple bypass at the St. Boniface Cardiac Sciences Program. As he told his co-host "I think of the day of his surgery as my new birthday!" The interview on CBC is available online at: <http://www.cbc.ca/news/canada/manitoba/story/2013/01/23/mb-terry-macleod-bypass-surgery-manitoba.html>. Terry MacLeod checked in during January with his morning show co-host Marcy Markusa, letting listeners know how his recovery from quintuple bypass surgery was going. (CBC) On Aug. 30, 2013, Terry was interviewed again by Marcy. He was delighted to report he feels better than ever! He is biking outside and rowing inside. On Aug. 31, he started a new assignment hosting CBC Winnipeg's Weekend Morning Show, Saturdays and Sundays from 6 – 9 AM.

Chuck LaFlèche encouraged me to read Jeffrey Simpson's "CHRONIC CONDITION – WHY CANADA'S HEALTH-CARE SYSTEM NEEDS TO BE DRAGGED INTO THE 21ST CENTURY". I decided it was appropriate to conclude this effort to encourage readers with the advice quoted from Emmett Hall, CC QC, author of the Royal Commission that gave rise to Canada's Medicare: "Individual responsibility was crucial in health care". Although the system he designed imposed no penalties on those who failed to shoulder such responsibility, he wrote: "Positive and enlightened attitudes towards their health and habits to promote it are part of individuals' responsibility which cannot be replaced by compulsion or by public health measures".

## Early Detection Will Help Beat The Global Pandemic of Cardiovascular Disease

by Ivan Berkowitz, Heart Health Scholar

Since the Heart Health Think Tank which we organized in Winnipeg on April 19, 2008, I have been motivated by the observations made late in the day by a guest from Cancer Care Manitoba who acknowledged many of the good ideas she had heard but admonished us for ignoring the most important element of fighting cancer – **EARLY DETECTION**. This article is comprised of material found online from the noted experts and in printed material provided.

### DON'T RELY ON RISK FACTORS!



**Jim Fixx**  
Famous US Marathoner

- Not Overweight
- Very Fit
- Non-Smoker

**DIED OF A MASSIVE HEART  
ATTACK AT AGE 52**



**Winston Churchill**  
Prime Minister during WWII

- Overweight
- Not Fit
- Heavy Smoker

**LIVED TO AGE 89**

Online at [www.shapesociety.org](http://www.shapesociety.org)

"I'll let you in on a big secret," says Dr. Arthur Agatston. "Physicians who practice aggressive prevention have seen heart attacks and strokes practically disappear from their practice. It's that simple — this approach can literally prevent heart attacks and strokes and save lives. My goal in writing *The South Beach Heart Program* was to speed the pace of the cardiac prevention revolution currently taking place in this country." To that end, Dr. Agatston has performed pioneering work in noninvasive cardiac imaging that has

resulted in computerized tomography (CT) scanning methods and measures that bear his name: the Agatston Score and the Agatston Method, which are used to screen for atherosclerosis — and are recognized worldwide. Dr. Agatston is an adviser to the Society for Heart Attack Prevention and Eradication (SHAPE), a non-profit organization based in Texas. The mission of SHAPE is to promote education and research related to mechanism, prevention, detection, and treatment of heart attacks. The organization is committed to raising public awareness about recent revolutionary discoveries that opened exciting new avenues to prevent heart attack. SHAPE's mission is to eradicate heart attacks in the 21st century. Additional information is available on the organization's Web site at [www.shapesociety.org](http://www.shapesociety.org)

On June 22, 2009, Governor Rick Perry of Texas signed HB1290, the nation's first preventive cardiovascular screening bill for early detection of coronary artery disease. The legislation requires Texas insurers to pay up to \$200 for a either a non-contrast computed tomography (CT) scan measuring coronary artery calcification, commonly known as a calcium scoring exam, or ultrasonography for measuring carotid intima-media thickness and plaque.

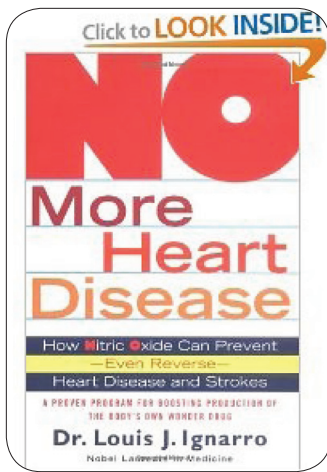
The reimbursement is being made available to men between 45 and 76 years of age and women between 55 and 76 who are either diabetic or who have an intermediate or higher risk of developing coronary artery disease, based on the Framingham Heart Study coronary prediction algorithm. The test may be conducted every five years by a certified laboratory. Making these screening exams widely available has been a primary mission of a group of distinguished preventive cardiologists and academic cardiovascular specialists from the Society for Heart Attack Prevention and Eradication (SHAPE). The Texas legislation is the first in the United States to mandate the careful and responsible implementation of a comprehensive heart attack risk assessment and reduction strategy. It closely follows the SHAPE Guideline for identification of apparently healthy individuals who have a high risk of a near future heart attack but are unaware of their risk. Approved screening procedures include: 1) the measurement of coronary artery calcium score (CACS) by CT; and 2) the measurement of carotid intima-media thickness (CIMT) and plaque by ultrasonography. These two non-invasive screening tests have proven by the National Health Institute studies to be strong predictors of those who are vulnerable to a heart attack or stroke.

In his book "NO More Heart Disease", Dr. Louis Ignarro, Nobel Prize Winner and recipient of the IACS Medal of Merit, focuses on how Nitric Oxide affects the entire vascular system. By relaxing and enlarging blood vessels, NO regulates blood pressure, prevents blood clots that trigger strokes and heart attacks, and protects against the accumulation of vascular plaque. His age-proofing recommendations involve taking NO-boosting supplements, incorporating NO-friendly foods into diets, and following a moderate exercise program (which in a recent talk, he admits his personal training now includes weekly distance rides on a bicycle and training for and running marathons).

At the exhibitions at American Heart Association sessions, I have been fascinated by two unique systems from abroad. In 2010, Panasonic from Japan invested in CardioNexus and now offers the advanced, automated features of the CardioHealth® Station to enable physicians, especially primary care physicians and internists, to perform atherosclerosis imaging and cardiovascular risk assessment in their offices, without need for outside referral. CardioHealth® Station enables doctors to directly visualize subclinical atherosclerosis (increased wall thickness and hidden plaque in carotid arteries). Carotid ultrasound studies that include CIMT measurement and scanning for plaque have been shown in large, prospective clinical studies to improve CV risk classification.

EndoPAT, from Israel, is a leading medical device for noninvasive endothelial function assessment. Research in over 40 countries with thousands of tests performed ever month has yielded over 100 articles in peer-reviewed journals and abstracts. EndoPAT tests can be carried out in both the office and hospital settings with EndoPAT sensors placed on the index fingers of both arms. The easy-to-perform test takes only 15 minutes. The EndoPAT software allows real-time viewing of results and spreadsheet analysis. Results indicate essential validity of EndoPAT as a measure of endothelial function.





In 2009 in Winnipeg, Dr. Jay Cohn delivered the Harold Buchwald Memorial Heart Health Lecture "A Strategy for Everyone to Live Past 100". After his 22 years as Director of the Cardiology Division at the University of Minnesota, Dr. Cohn has turned his focus from treating people with severe and acute heart disease when "It occurred to me that it makes no sense that we're waiting for people to get sick to intervene and slow the deadly disease progression. What we should be doing is keeping people healthy rather than keeping sick people alive which is exceedingly expensive and often leaves people with disabilities from their advanced disease." Dr. Cohn teaches that what causes all cardiovascular morbid events is a little cell in the inner lining of the arteries called the endothelial cell which secretes itself in nitric oxide which keeps the artery flexible, relaxed and protects it from forming clots and plaque. The endothelial cell is critical to keeping people healthy because when it is not secreting enough nitric oxide it's in a state of "endothelial dysfunction" contributed to by heredity and environmental factors.



Dr. Cohn has focused on efforts at early identification of cardiovascular diseases to encourage lifestyle modification and pharmacotherapy before organ system disease manifests. His innovative efforts at early detection focused on screening to diagnose stiffening of the small arteries, utilizing a methodology he developed at the University of Minnesota which is now FDA-approved and marketed worldwide by Hypertension Diagnostics. He has led the formation of the Rasmussen Center for Cardiovascular Disease Prevention. As we quoted Dr. Cohn's writing in CV Network Vol. 8 No. 3,

"A complete screening takes about one to two hours. Other than blood sampling, the procedures are non-invasive, painless, require no preparation and take only a few minutes each. Couple or individual appointments are available.

### Early Diagnostic Detection Tests:

#### Non-Invasive Tests

- Measurement of elasticity of artery walls
- Digital photograph of the small arteries in the eye (eye dilation not required)
- Blood pressure response to treadmill exercise
- Urine test to detect a leak of albumin that occurs in small artery disease (microalbumin)
- Ultrasound examination to identify changes in the wall of the arteries of the neck
- Ultrasound examinations of both the heart structure and abdominal aorta
- Electrocardiogram
- Pulmonary Function Test

#### Blood Tests

- Natriuretic Peptide
- Total cholesterol, LDL, HDL, Triglycerides
- Blood sugar (glucose)



### Risk Factor Assessment and Cardiovascular Physical Exam:

During the risk factor assessment, a nurse practitioner will review family history, past medical history, health habits, and nutrition. The nurse practitioner will conduct an exam focused on the heart, lungs, and circulation, and will make recommendations about needed lifestyle changes.

### Results:

Historically, 50% of individuals screened were free of early cardiovascular disease abnormalities. We recommend re-screening at five year intervals. 20% received recommendations for lifestyle changes. We recommend re-screening within one to three years. 30% received recommendations for medications to slow or halt progression of early disease. Based upon individual results, the medicines used include statin drugs, angiotensin converting enzyme inhibitors, angiotensin receptor blockers, beta-blockers, and aspirin.

### Screening Follow-up:

Each patient is provided with a Results Profile detailing the results of the tests and guidance for care management. Recommendations may include dietary, life-style or medication advice. Recent data confirms that early intervention with effective drug therapy can slow progression of disease and prevent morbid events. Screening reports can be provided to physicians/providers for follow-up when needed. If no physician is available, the Rasmussen Center can provide initial treatment until a long term provider can be identified.

### Evidence-Based Prevention:

Rasmussen Center results have been widely disseminated at primary care medicine and preventive cardiology conferences and seminars throughout the USA and abroad. Recent publications are appearing in leading medical journals."

*My personal conclusion is that the CT-scans involve the purchase of extremely expensive equipment and there is some risk from the radioactivity. Such tests as those utilizing the EndoPAT and CardioHealth® Station may become useful additions to testing programs. The Rasmussen Center for Cardiovascular Disease Prevention is the reasonably cost-effective system worthy of further trials, particularly when complemented by the preliminary use of a 4-test system the Rasmussen Center has begun to test. →*

**From page 9.** Looking to the future, I have learned from Dr. Robert Roberts, President and CEO of the University of Ottawa Heart Institute, about the potential of genetic testing, even from a drop of blood from a baby. "THE BEAT", the Heart Institute's Compendium of Information, reported in Vol. 6, Issue 2, 2011 "In the largest ever collaborative study of its kind, a team of cardiovascular genetics researchers (led by the University of Lübeck in Germany included researchers from more than 100 organizations, including the Ruddy Canadian Cardiovascular Genetics Centre at the Heart Institute) have identified 11 new genetic variants associated with coronary heart disease (CAD). This finding more than doubled the number of genetic variants known to impact risk for CAD. The study also confirmed the association of 10 previously identified variants. Of the 21 genes found or verified, only six were found to be related to traditional risk factors such as blood cholesterol levels." Dr. Roberts stated that the bigger picture remains the same. "Now our job is to understand how these genes work, develop a new group of drugs to target them and identify people who will benefit the most to reduce their risk of heart attack or other cardiac events".

## WHAT IT'S ALL ABOUT!

**Editor's note:** In 1999, my special friend Irene encouraged, no insisted, I get involved with the new electronic media. With the fortunate meeting of Oscar Li, I was able to create a web site for our World Heart Congress and it helped bring nearly 2,000 delegates from 72 countries to Winnipeg in July, 2001. Through E-mails, I made contact with a young cardiologist from Cuba. I realized that Delfin could barely speak English so I located Floribeth Aguilar working in Dr. Lorrie Kirshenbaum's lab to serve as Delfin's translator. Recently, Irene and I had dinner with Delfin and his daughter in Winnipeg and we shared the amazing developments in his career. He continues to practice cardiology in his hometown Holguin, Cuba but has participated in world-class research at the St. Boniface Hospital Research Centre. We are launching Ayelen's career as she has joined her Dad working this summer in Dr. Grant Pierce's lab before she enters Medical School (right after high school) in Holguin.

Delfin has visited Winnipeg 11 times, staying for as long as 6 months while he has been working on various research projects, most recently on FLAX-PAD on which he spoke at the recent Scientific Sessions of AHA in Los Angeles. The following was reported online by [theheart.org](http://theheart.org)



## Our Cuban Friend has made a Major Contribution to proving FLAX Lowers BP

by Lisa Nainggolan

**Los Angeles, CA** - Adding flaxseed to the diets of patients with peripheral arterial disease (PAD) resulted in large drops in blood pressure (BP) of around 10 mm Hg systolic and 7 mm Hg diastolic after six months, according to the results of a double-blind, placebo-controlled study.

"This reduction of SBP and DBP after administration of dietary flaxseed is the largest decrease in BP ever shown by any dietary intervention," said Dr Delfin Rodriguez (University Hospital Holguin, Cuba) speaking here today at the American Heart Association 2012 Scientific Sessions. Such reductions would be expected to result in around a 50% fall in the incidence of stroke and a 30% reduction in MI, he added.

This reduction of SBP and DBP after administration of dietary flaxseed is the largest decrease in BP ever shown by any dietary intervention.

Rodriguez explained that the trial, FLAX-PAD, was conducted in PAD patients because they happened to have a clinic for the disease in their center and, as around 75% of PAD patients have concomitant hypertension, "it was an easy population to study."

Subgroup analyses of only the PAD patients with hypertension showed a greater reduction in SBP, of about 15 mm Hg, in these patients than in the study population as a whole and a similar reduction in DBP, he noted.

"Flaxseed represents a particularly attractive strategy for controlling hypertension in economically disadvantaged communities and countries, and its BP-lowering effects compare favorably with those of antihypertensive drugs and lifestyle modifications, such as a low-salt diet and weight loss," he noted.

Rodriguez said that he and his colleagues chose to study flaxseed because animal studies have shown it has antiatherogenic, anti-inflammatory, and antiarrhythmic effects and may reduce circulating cholesterol and trans-fatty acid levels.

They randomized 110 patients with PAD and an ankle-brachial index (ABI) <0.9 to milled flaxseed (30 g/day) in the form of bagels, muffins, and buns (n=58) or placebo products (n=52), made from wheat with a similar flavor, for one year.

Baseline characteristics were similar between the two groups, with hypertension being highly prevalent—around three-quarters of the PAD patients had high blood pressure, and 80% were taking antihypertensive medications. BP measurements were based on an average of three readings taken in the sitting position with a mercury sphygmomanometer by a trained nurse.

Rodriguez reported six-month results. "We obtained an important decrease in SBP and DBP using flaxseed compared with placebo," he observed, noting that the reductions were statistically significant ( $p=0.04$  for SBP and  $p=0.004$  for DBP). SBP in the placebo group increased by ~3 mm Hg and DBP remained the same over the six-month period.

He added that the results out to one year are in the process of being analyzed and will be presented at a future date. This includes trying to figure out which particular constituents of flaxseed may be responsible for the antihypertensive effects, he noted. The flaxseed group exhibited a twofold increase in plasma alpha-linolenic acid and a 10-fold increase in enterolactone levels ( $p=0.003$ ), but levels of these compounds did not change in the placebo group.

"Flaxseed has different components, including alpha-linolenic acid, enterolignans, and fiber, and all have been shown to decrease BP. We think we are seeing a synergistic effect of different compounds," he commented. "But, the flax must be ground not plain seeds".



## Canada's Wild Blueberries Save Lives!

by Teri Moffatt, Winnipeg, Canada



Agnes' Zaida Ivan taught her about the joys of picking and eating blueberries before she was 2!

In her article in the Winnipeg Free Press "INTO THE WILD BLUE YONDER" on July 31, 2013, Allison Gilmour referred to a 2010 editorial for the Globe and Mail, by well-known environmentalist David Suzuki who made a good case for why the wild blueberry should be declared Canada's national plant. He cited the seasonal social ritual of picking the berries, with families from Newfoundland to the Yukon walking with tin pails, on the lookout for good patches in low-lying bushes. He pointed to the wild blueberry's ties to the land and to history. First Nations peoples have eaten blueberries for centuries, boiled up for tea, pounded into dried meat, or smoked so their goodness can be preserved for winter. Dr. Suzuki made a convincing health argument for the all-Canadian blueberry. It's a nutritional powerhouse, bursting with antioxidants, fibre, vitamins C and K, potassium, calcium and manganese. Grizzly bears, as big as they are, are happy to subsist on blueberries during the peak of the berry season.

The 2013 growing season started late in Northern Ontario and Manitoba but much to everyone's delight the conditions have been perfect for a bumper crop of blueberries. Not only do these sweet berries satisfy the

taste buds but they are also nutritional superstars. They are high in vitamins and minerals, including manganese which plays an important role in bone health and metabolism. Blueberries are also known for their anthocyanins - the colorful antioxidant pigments that give berries their wonderful blue, purple, and red colour. However, there are also a wide variety of other phytonutrients found in blueberries which function both as antioxidants and as anti-inflammatories and are responsible for many of the health benefits we get from regular consumption of blueberries. Because some of the blueberry's nutrients are concentrated in the skin, wild blueberries are also gram for gram more nutritious than cultivated ones. A cup of these small but mighty berries has more skin than a cup of marble-sized berries, and thus more nutrients.

### Cardiovascular Benefits

The benefits of blueberries have been especially well documented with respect to the cardiovascular system. Increased blueberry consumption has been shown to reduce total cholesterol, raise HDL cholesterol, lower triglycerides and to help protect the blood components, such as LDL cholesterol, from oxidative damage that may eventually lead to clogging of the blood vessels. The United States Department of Agriculture recently rated 100 foods on their antioxidant power, and blueberries received an "A" rating. They also suppress inflammation, which is a key driver of coronary artery disease.

Interestingly, the positive effects of blueberry consumption increase in a dose-dependent manner. One cup daily is good but 2 or 3 are better!

High blood pressure is also a risk factor in heart disease. In studies with males and females of a variety of ages, routine blueberry intake supported healthy blood pressure. In individuals with high blood pressure, blueberry intake significantly reduced both systolic and diastolic blood pressure.

Also recent research on an enzyme called nitric oxide synthase (NOS), which has two forms, the inducible form (iNOS) which is associated with increased risk of inflammation and the endogenous form (eNOS) which is usually associated with better balance in cardiovascular function, have shown that daily blueberry intake can result in increased eNOS activity.

### Blood Sugar Benefits

Persons diagnosed with type 2 diabetes, metabolic syndrome, insulin resistance, and obesity often have difficulties with respect to maintaining blood sugar balance. Blueberry intake in these patients has a favorable impact on blood sugar regulation. Although blueberries are not particularly low in terms of their glycemic index (GI) value they have a good amount of fiber which is helpful in blood sugar regulation.

### Cognitive Benefits

Research has also shown that daily blueberry consumption can improve scores on tests of cognitive function such as memory. Studies have also suggested that blueberries may be able to postpone the onset of other cognitive problems frequently associated with aging. This cognitive protection is most likely due to the antioxidants and polyphenolic compounds in blueberries which have the ability to lower oxidative stress and inflammation in nerve cells, which are at high risk of damage. By lowering the risk of oxidative stress in our nerve cells, blueberries help us maintain healthy neuronal communication and healthy cognitive function.

So why not eat blueberries. Maybe this little blue wonder will help keep you healthy longer. They are delicious by the handful, added to your smoothie, oatmeal or yogurt. They are fabulous baked in muffins or pie. And studies have shown that the nutrients in blueberries are similar in fresh, frozen or dried berries. So if you have the chance to stock up during growing season then you can benefit the whole year round.

# World Heart Day

Celebrated in Winnipeg  
Thursday, October 3, 2013



An incredible  
talk by  
Dr. Salin Yusuf  
WHF President-Elect  
highlighted World Heart Day  
in Winnipeg –  
to learn from his  
immense wisdom, go to  
[heartacademy.org](http://heartacademy.org)

## Take the road to a *healthy* heart

In celebration of World Heart Day take steps towards a heart-healthy life: encourage physical activity, healthy eating and ban tobacco use to reduce your own and your family's risk of heart disease and stroke. Today we have an opportunity to prevent the future impact of these diseases by enabling heart-healthy living from childhood throughout adulthood. Find out more: [www.worldheartday.org](http://www.worldheartday.org)

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