## **Health** Breakthrough! A Medical Journey to Prevent and Reverse Heart Disease



**Dr. Pandey** 

Weep us thin, the "fountain of youth" that will keep us young, that "breakthrough" medicine that is a "game changer" and will keep us alive longer and healthier. As a physician, committed to the principals and ideals that started with Hippocrates, I too have been on this journey, at least since 1987 when I first began my cardiovascular career. It seemed a long and arduous journey with no end in sight. Many small breakthroughs heralded hope but even more setbacks have reminded us how far we still have to go to overcome disease and disability. Could we actually delay and prevent death and disability?

The 80's saw great advances in better organization of health care delivery. Highly skilled teams of physicians, nurses, and other

healthcare providers developed integrated ICU's, ERs and death rates from cardiovascular illness started to fall significantly.

The 90s saw greater advances in technologies like balloon angioplasty, stents, and complex cardiovascular reconstruction surgeries. Death rates from heart disease fell further.

The new millennium has seen massive advances in our understanding of the molecular and genetic makeup of the human body. The human genome has been mapped and we are finding many of the genes responsible for the illnesses that still plague our society today.

With better understanding has come great advancements in therapeutics. We have developed designer drugs that precisely target the illness pathways rather than a "shotgun" approach that targets all pathways, thus improving effectiveness and minimizing side effects. In some cases, we can precisely target the specific genes a person carries, and deal directly with their own cause of disease.

Technological advances have also come fast and furious with new devices and interventional techniques that have revolutionized cardiac care. The expansion in availability of Primary PCI or angioplasty, where we directly open the specific clogged vessel that led to the heart attack, have dramatically cut heart attack deaths. Novel techniques to

open calcified valves of the heart, through catheters rather than the scalpel, offer hope to those who could not withstand open heart surgery. New devices to support and regulate a failing heart give both longer lives but also may improve the quality of life. Technology has brought us a long distance. Death and disability from heart disease continues to fall significantly in the new millennium.

Yet, I must admit, with great humility, that one of the greatest advances in cardiovascular medicine is a back to the basics. Remembering and better understanding the things that actually caused the illness in the first place is the greatest challenge of our day. How do we actually prevent illness from occurring rather than dealing with its consequences?

Well it turns out that your mother and my mother were right all along. Better nutrition, more exercise, stress management, reduction of alcohol, and elimination of smoking are the key to preventing the disease and reversing its effects. Remarkable science just published in the last few weeks shows that even those who have a strong family history of heart disease, and carry the genes of cardiovascular illness, through healthier lifestyle changes, can actually turn off many of those bad genes! We can overcome our heredity and change what we have inherited!

I hope I have excited you with the advances

we are making in cardiovascular medicine. This scourge, that still remains the leading cause of death and disability, seems on the verge of prevention and reversal. It has been an exciting journey for me personally, these 25 years, to see the great strides we are making and the lives we are impacting. We live in unprecedented times.

It is with this excitement, knowing how far we have come yet how long the journey remains, to eliminate cardiovascular death and disability, that I invite you to the 10th Annual Healthy Heart Day. This free event is focussed on research breakthroughs that empower us to live healthier lives, free of cardiovascular limitations. Let my colleagues and I share with you the details of what we have learned and how you can use this knowledge to prevent and reverse heart disease for you and your family. Nationally and internationally renowned expert physicians will discuss their work that continues to stretch the boundaries of cardiovascular medicine. They will outline in simple terms the practical things we can do to live healthier lives longer, and enjoy the journey along the way. I hope you will attend Healthy Heart Day on Saturday April 26th 2014 from 8 am to 1pm at St. Benedicts High School, Cambridge - It should prove to be an exciting day!

## **Technology**

## **Smartphone App Proves Useful in Managing Diabetes**

It's the news that parents never want to hear: their child's life will forever be affected by a medical condition. Marcus was only five-years-old when he was diagnosed with Type 1 diabetes.

"It was a devastating diagnosis," said Sara Nita, Marcus' mother. "His father and I barely had time to let it sink in because managing the diabetes was more of a priority."

Marcus needed daily blood glucose tracking and management, which requires a great deal of time and careful attention, particularly at the beginning. Thankfully, there are digital health tools available to make this process much more accurate, reliable and efficient.

With a bit of digging, Sara was able to find some mobile apps designed for people with Type 1 diabetes and soon she was using her smartphone to track Marcus' blood glucose levels. "I'm accustomed to the digital world," she explained, "so using pen and paper to track information as vital as this is inefficient. "We do a fair amount of traveling as a family, so having a solution that is reliable, convenient, and mobile is very important."

Digital health tools are also saving time for Sara, as she needs to have daily contact with a diabetes educator when Marcus' blood sugar levels are off.

"Normally, this would mean time off work and school," she explained, "but instead, I simply upload his information and wait for instructions on what adjustments need to be made to his pump."

It would appear that Sara is one of many Canadians embracing digital health.

A recent survey by Harris/Decima reveals that 89 per cent of Canadians feel it's important that they personally have full advantage of digital health tools and capabilities.

Canada Health Infoway recently launched its Better Health Together campaign to showcase how digital health has made a difference in the lives of many patients like Sara. Take a look at www.betterhealthtogether.ca.

"Canada has been at the leading edge of technology for many years," she adds, "so applying it to help Canadians manage their health and wellness just makes good sense." (NC)

## **Puzzle Answers**

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