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How you can get involved
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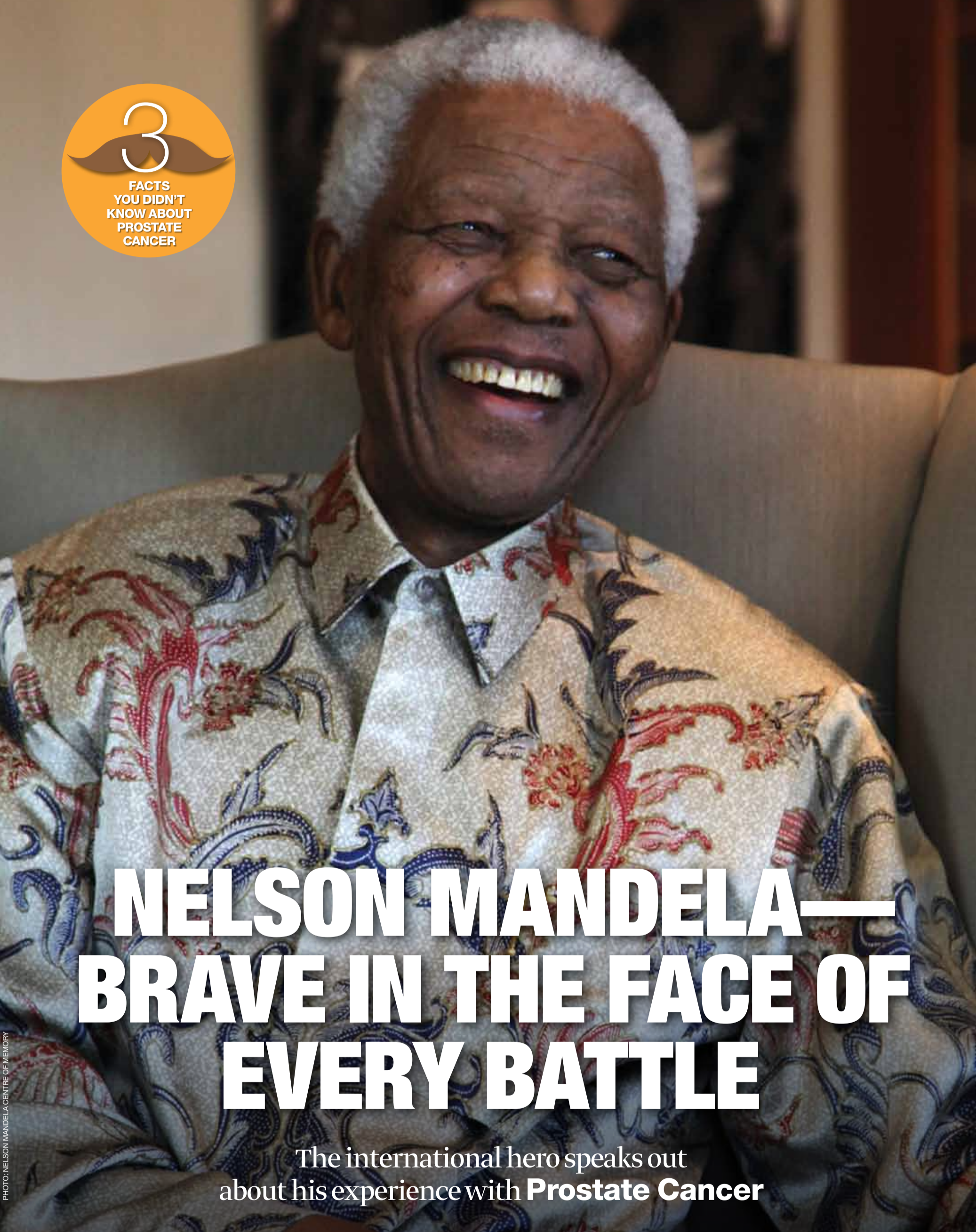


What treatment is
right for you?
Discover all of your options

**MEDIA
PLANET**

November 2012

PROSTATE CANCER



NELSON MANDELA— BRAVE IN THE FACE OF EVERY BATTLE

The international hero speaks out
about his experience with **Prostate Cancer**

PHOTO: NELSON MANDELA CENTRE OF MEMORY



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CHALLENGES



FACT
1
1 IN EVERY 7 MEN WILL BE DIAGNOSED WITH PROSTATE CANCER IN HIS LIFE TIME

WE RECOMMEND

From clinics to your streets
Discover how easy it is to get yourself checked.

PAGE 4

“Sometimes guys don’t want to talk about things below the belt but the more we talk about it, the better.”

Out with the old p. 5
New and fun ways to raise awareness.

Exciting research p. 7
Finding new solutions for future treatments.

MEDIA PLANET

PROSTATE CANCER
1ST EDITION, NOVEMBER 2012

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WEST COAST RESEARCH



Tiny particles making huge strides in cancer treatment

Advances in technology
Research and development into how ‘smart’ nanoparticles can reduce the negative side effects of chemotherapy whilst increasing its positive effects has been taking place at University Hospital Alberta.

Dr. John Lewis explained how this type of particle can fight cancer more efficiently. “Compared to a chemotherapy cell a nanoparticle is huge; a nanoparticle allows us to pack a lot of chemotherapy into one particle and then use this as a vehicle to target the tumor directly.”

Dr. Lewis explained that current methods of chemotherapy treatment can damage healthy tissue in the body, which can lead to side effects such as hair loss and a weaker immune system. He said, “Our aim is to get a high dose of chemotherapy to the tumor and a low dose to the rest of the body. The nanoparticle has the ability to search out the cancer in someone’s body and work to kill it.”

Planning for the future
The long term aims of the researchers and doctors at UHA are to eradicate any deaths caused by prostate cancer. Dr. Lewis said, “Nobody dies from prostate cancer, Metastasis, the spreading of cancer throughout the body, is what kills. If we can develop drugs to stop the spread of cancer, we can stop its deadliest aspect.”

JOE ROSENGARTEN
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11 Canadian men die of prostate cancer every day.

However, access to the most innovative treatments are just a few ways in which Canada is helping to improve survivorship and reduce the number of Canadian families affected.

Assessing prevention, diagnoses and survivorship of prostate cancer

What are some of the risk factors for prostate cancer?

There is no single cause of prostate cancer. However, some factors make developing prostate cancer more likely. The chance of getting prostate cancer rises quickly after a man reaches age 50. Age is one of the most important risk factors for prostate cancer. When it comes to family history genetics plays a role - the risk of prostate cancer increases if close family members have had the disease. Along with this, men who eat a low-fibre, high-fat diet have a higher rate of prostate cancer. Research suggests that saturated fat increases the production of the hormone testosterone, which may help prostate cancer cells grow. Lastly having a high Body Mass Index (BMI) may increase the risk of prostate cancer. Being physically active is a good preventative tactic, along with losing weight and eating the right foods.

What steps can you take once diagnosed?

The diagnosis is just the beginning of the process, soon to be followed by



many medical tests and decisions. It’s essential to educate yourself and stay updated on your condition and treatment options. The more you know, the more confident you will feel to make the right decisions about your health and future. Now, more than ever, you need the support of family and friends. Talk about your feelings, fears, and any anxieties. Working through them with another person or network of support can ease the process.

What are some innovative treatment options?

Both brachytherapy and nerve-sparing surgery represent significant

advances in treatment options. Low-dose seed implant brachytherapy is usually recommended for men with lower grade cancers that are contained within the prostate gland. Between 80-100 radioactive seeds (equal in size to a grain of rice) are implanted directly into the prostate. Each seed releases low-energy level radiation steadily over several months. High dose radiation is reserved for patients with high-grade cancers. Radiation is received via approximately 15 needles in the prostate, concentrating on the cancerous areas.

Nerve-sparing surgery, including image-guided or robotic techniques, can be used to try to preserve the nerves that control erections rather than removing them with the prostate, with the added benefit of potentially reducing incontinence. If you have a more advanced or aggressive cancer, this may not be recommended, as there is increased risk that cancer cells may remain.

These advances in treatment have led to an even better survival rates for prostate cancer, necessitating the need for

more comprehensive support services.

What support services are available?

A new initiative in Support Services, “A Survivorship Action Partnership” (ASAP), is currently in development. Consisting of a national network of clinical and community groups, the network aims to implement solutions that will improve the quality of life of prostate cancer survivors. Programs funded will provide information and resources on a variety of topics, such as physical, mental and spiritual well-being.

The Prostate Cancer Canada Network (PCCN) also helps survivors via its affiliated prostate cancer support groups, which offer monthly peer meetings, special educational events, outreach programs and presentations at community events. Group members and leaders do not give medical advice but freely share their own stories.

DR. STUART EDMOND,
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CONTINUED SUPPORT TO FINDING A CURE

During the month of November, millions of men worldwide will grow a moustache in support of the prostate cancer awareness initiative, Movember.

Pete Bombaci, National Country Director, explained how Movember has been a success. “Typically, men are less likely to talk about their health. The moustache is the conduit that can make important conversations start to happen, it’s a fun way to talk about health.”

Bombaci said: “Last year twenty percent of men took action as a result of the campaign and at least fifty percent had a conversation about men’s health.”



Global action

Movember’s Global Action Plan (GAP) currently has two programs in development.

The Global Prostate Cancer Biomarker Initiative is one of them. It aims to develop new blood, urine and tissue based tests (Biomarkers) that

can better predict whether or not the prostate cancer that a patient is suffering from will develop into an aggressive or non-aggressive form. **Bombaci said:** “The development of these tests would be a real game changer, if we could find out this information earlier it could save people a lot of money and stress.”

The Collaborative Global Imaging Project is the other program on GAP’s agenda, which aims to use state of the art imaging technology to detect prostate cancer in its earliest stages. The earlier that the cancer can be detected, the better the chance that there will be a positive outcome for the sufferer.

Productive partnerships
Two years ago, a partnership aimed at

raising awareness of Movember was formed with Harley Davidson.

Bombaci said: “They have been such a great partner, they have really helped us to get the message out. Their organization truly supports the campaign. They represent quality and cool and we fit that mould too: the Movember campaign is a cutting edge initiative.”

JOE ROSENGARTEN
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Wanted: Men, 40 years and older.

The Calgary Prostate Cancer Centre is a world-class, full service medical centre which focuses on early detection and treatment of prostate cancer. Our goal is to make prostate cancer well understood, to make the simple PSA (Prostate Specific Antigen) blood test available to men 40 years of age and older, and to take the Man Van™ to the communities where men live and work to encourage them to **GET CHECKED**.

For more information about the work of the Prostate Cancer Centre,
visit ProstateCancerCentre.ca



**Prostate Cancer
Centre**

INSIGHT



ROBOTIC SURGERY

Changing the surgical experience for men with localized prostate cancer



Dr. Kevin C. Zorn, MDCM, FRCS, FACS
University of Montreal Hospital Center (CHUM), Director of CHUM Robotic Surgery Assistant Professor, Minimally Invasive and Robotic Uro-Oncologist

Upon the biopsy-diagnosis of prostate cancer, there are a multitude of therapeutic options for patients with early, organ-confined prostate cancer. These include 3 standard-of-care therapies - active surveillance; radical prostatectomy and radiation therapy. It is also important to note that, as with all medical and surgical treatments, there are side effects associated with the treatment of prostate cancer. Cancer recurrence, incontinence and impotence are the things that we strive to avoid but can occur in some patients.

Radical prostatectomy remains the standard treatment for long-term cure of clinically localized prostate cancer, offering excellent oncologic outcomes, with cancer-specific survival approaching 95% at 15 years after surgery. Although very few surgeons perform this procedure laparoscopically, the majority of Canadian urologists conduct surgery through an open, retropubic approach. In short, to the patient, this generally means a 3-5 day hospital stay and a catheter and recovery time of 14 days and 6-8 weeks, respectively.

Robotic innovations

The introduction of the state-of-the-art da Vinci Robotic Surgical System has been another important step toward a minimally invasive approach to radical prostatectomy. The benefits of three-dimensional vision, wristed instrumentation with seven degrees of freedom of motion, lack of tremor, a 10x-magnification and a comfortable seated position for the surgeon has added value to the surgeon and patient. "da Vinci robotic surgery offers patients facing radical prostatectomy many potential benefits over traditional surgery, including significantly less pain, less blood loss and transfusions and fewer complications" says Dr. Kevin Zorn, Assistant Professor of Urology and Director of Robotic Surgery at the University of Montreal Hospital Center.

Shorter recovery

He states that men following RARP should commonly expect a hospital stay <24 hours and a catheter and recovery time of 4-7 days and 2-4 weeks, respectively. "The procedure takes 2-3 hours under a general anesthesia and allows faster recovery and return to normal activities" says Dr. Zorn. Aside from reducing morbidity for Canadian men, it has also been described that, with experienced robotic surgeons, RARP yields lower positive surgical margins (PSM) rates and higher continence and potency rates. "75% of my patients are using either no-pads or 1 small security pad at 1 month after surgery" says Dr. Zorn. It is important to recognize however that surgeon experience and institutional volume of procedures strongly predict better outcomes in all relevant functional (erectile function and urinary control) and oncological domains.

Changing lives

Ultimately, in the era of minimally invasive medicine, the da Vinci robot has changed the therapy for localized prostate cancer. Patients should discuss this option with their physician when evaluating treatment options for localized prostate cancer.

DR. KEVIN C. ZORN, MDCM, FRCS, FACS, UNIVERSITY OF MONTREAL HOSPITAL CENTER (CHUM), DIRECTOR OF CHUM ROBOTIC SURGERY, ASSISTANT PROFESSOR, MINIMALLY INVASIVE AND ROBOTIC URO-ONCOLOGIST

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MOVING TREATMENT FORWARD WITH RAPID ACCESS CLINICS

FACT

2

97% OF PATIENTS MOVE FORWARD TO LIVE A HEALTHY LIFESTYLE



FEATURING FROM LEFT TO RIGHT: Charlie Huddy (former NHL defenseman), Doug Brown (former CFL player), Ed Johner and Shelly Glover (Member of Parliament for Saint Boniface in Winnipeg, Manitoba).

ONE STOP SHOP

The Prostate Cancer Centre is a medical organization with a unique approach. It offers sufferers of prostate cancer the adequate care and attention that they require at each stage of their journey, from detection to aftercare.

Pam Heard, Executive Director at Prostate Cancer Centre, spoke of the advantages of such a structure. "We have been able to name all of our clinics as 'rapid access' because we have cut waiting times in half. If issues are recognized after a man has had an initial test he will be referred to a urologist. At most medical centres there is a three to six month waiting list for that referral. Here we have a waiting list of two weeks."

As well as offering detection, treatment and aftercare, Prostate Cancer Centre also equips men with all of the information that they need concerning their condition. "Once they hear that they need surgery it is usually up to the patient to go off and research possible treatments. Here we host a



Pam Heard
Executive Director,
Prostate Cancer Centre

night, twice a month, where leading specialists come in and give patients all of the information that they could possibly need."

PSA testing

Heard explained that detection is the most important factor in the fight against prostate cancer. "No man should die of prostate cancer. If caught early enough ninety nine percent of cases are curable."

She believes that men should be more aware of the ease at which they can have a PSA test: it is not a complex or invasive procedure. "It's a simple blood test; it's just like checking the oil in a car. Every man should have a PSA test at forty and then one every five years until he is fifty, after which, he should have a test once a year."



Gareth Morgan
Graduate,
Prostate Cancer Centre

The power of communication

At the Prostate Cancer Centre men who have had surgery and have been given the clear are not called survivors, they are called graduates. One such graduate is Gareth Morgan, a volunteer who sits on the board at Prostate Cancer Centre.

He believes that having graduates volunteering at the centre is a real benefit. "There is always someone here to take phone calls from men who may have recently been diagnosed. We all have different insights and experiences to share about prostate cancer. It is so important to speak to someone who has been through it."

This phone line is there for men to ask any questions that they might have about prostate cancer whether it be about PSA testing, surgery or

aftercare. Morgan said, "There is a list of volunteers that any man can phone up and talk to. Each volunteer has knowledge of a specific type of treatment, whether it be radiotherapy or cryosurgery."

Taking it on the road

Morgan is part of an initiative called the Man Van, a mobile PSA testing unit that goes out onto the streets of Calgary and invites men in for a test. Morgan said, "Over the past three years we have tested over six thousand men. It's so simple and it only takes a few minutes. We then mail out the results or, if they have an abnormal reading, we call them. Either way, there is always a follow up."

The Man Van also aims to get men talking, "Sometimes guys don't want to talk about things below the belt but the more we talk about it, the better."

JOE ROSENGARTEN
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How does exercise affect prostate cancer?

Exercising your options

You have probably heard that exercise can help to lower your risk of developing heart disease and diabetes, but did you know that exercise can also help decrease the risk of prostate cancer? In fact, exercise has been shown to benefit men with prostate cancer during all phases of the disease, by reducing the risk of prostate cancer, preserving and enhancing health during treatment, and improving overall survival.

Decreasing your risks

First off, a growing body of research has examined the relationship between routine physical activity and prostate cancer; a majority of which have found that exercise may actually decrease

the risk of developing prostate cancer. Men may also benefit from initiating an exercise program following a diagnosis and prior to treatment. In other cancers, such as colon and lung cancer, pre-habilitation (that is, engaging in an exercise program before treatment), can actually improve recovery and reduce treatment-related complications. In fact, preliminary research has found that men with prostate cancer who perform pelvic floor muscle exercise before surgery can reduce urinary complications following prostate cancer surgery.

Benefits of exercise

The evidence of benefit for men with prostate cancer is most apparent during treatments like radiation and hormone therapies. These treatments often

make men feel tired and reduce their overall physical fitness. During these treatments, exercise has been shown to improve strength, fatigue, cardiovascular fitness, and quality of life. Clearly, the role of exercise following a prostate cancer diagnosis is important for feelings of physical and emotional wellbeing, but recent research also suggests that it can increase survival as well.

Moving forward

Overall, exercise has many benefits for men with prostate cancer. The American College of Sports Medicine recommends that persons with cancer "avoid inactivity" and work up to 150 minutes a week of aerobic activity (such as brisk walking) and incorporate strength training on 2

days or more per week. Working with an exercise specialist with experience in oncology can help prevent injuries and make sure that the exercises are safe. Men should talk to their physician prior to changing their exercise levels to ensure there is not any individual safety concern.

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DR. DANIEL SANTA MINA, CEP, PHD, ASSISTANT PROGRAM HEAD OF KINESIOLOGY, UNIVERSITY OF GUELPH-HUMBER, SURVIVORSHIP EXERCISE PROGRAM, PROSTATE CENTRE, PRINCESS MARGARET CANCER CENTRE

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INSPIRATION

Even in the face of adversity Nelson Mandela is full of humour and spirit



PROFILE:
Name: Nelson Rolihlahla Mandela
Born: Transkei, South Africa, July 18, 1918
Education: University College of Fort Hare, University of Witwatersrand (qualified in law in 1942)
Professional: Joined the African National Congress 1944
Personal: June 12, 1964 Mandela was sentenced to life imprisonment (was released on February 11, 1990).
Diagnosis: July 2001

Advocating
 After spending 27 years in apartheid prisons before his release in February 1990 advocating for all African Amer-

icans in South Africa, in June 2001 the unthinkable happened to Nelson Mandela and he was diagnosed with prostate cancer. He was going for a monitored prostate specific antigen meeting when the cancer was detected but luckily for him he was diagnosed in the early stages. This is why he speaks out for all men and encourages early detection.

Diagnosis
 “The cancer was not of a high grade and should not decrease my life span” said Mr. Mandela as the cancer was

“I just wanted to get up and have a dance with her... Up above the world so high, like a diamond in the sky”

detected early. “He received radiotherapy for seven weeks, and his treatment was localized to the prostate gland” stated his spokeswoman. Nelson Mandela stated this thankfulness because he was monitored regularly for the prostate specific antigen (PSA) that indicates cancer. Although initial clin-

ical pictures revealed no alternation in his status, there had been a slight rise in the blood level of the PSA. Mr. Mandela reminisced on his sense of humor during the time of his treatment “When that day comes, and it may come sooner than you think, when I reach the next world, the first thing I will do is to look for a print of the African National Congress”.

Continuing strong
 After Nelson Mandela’s seven weeks of radiotherapy he was excused from having any type of chemotherapy or surgery. When asked about his feelings when he was given the clear he stated “I just wanted to get up and have a dance with her” about his wife not being able to be at the hospital with him. Mr. Mandela would soon be able to maintain most of his local and overseas commitments. But now at the age of 83, he is still full of spirit and humour [singing] “Up above the world so high, like a diamond in the sky,” as this helped him keep his spirits high at all times. Even to this day Nelson Mandela advocates for all men to be monitored regularly and strive for early detection. He has now been retired since 1999 and lives a healthy and happy life.

ELLEN CHOE
 editorial@mediaplanet.com



GENERATING AWARENESS JUST BECAME COOL



Ed Johner with his Wife and Daughter at last year’s Motorcycle Ride for Dad in Winnipeg. PHOTO: MOTORCYCLE RIDE FOR DAD

Formed in 2000, Motorcycle Ride for Dad is an organization that arranges group motorcycle rides across the country with the aim of raising public awareness of prostate cancer. Ed Johner, a founding member and spokesperson for Motorcycle Ride for Dad, is a survivor of prostate cancer.

How were you, emotionally, when dealing with the diagnoses?

Initially, I felt very numb and very alone. I built up an anger towards the cancer and I didn’t show anyone how I was feeling. Leading up to the surgery I built up a shield in my mind, I didn’t fully realize the gravity of what was happening.

Did these feelings change after treatment?

When I was fighting the disease I had an adrenaline high and then when I had defeated it there was a void. I went through a long period of feeling really empty.

How did you turn that energy into something positive?

It’s been a vehicle for me to do something great, working with these guys has been such a good journey for me.

What role did your family play?

She came with me to every appointment, she was with me through everything. I look at everything differently now, I’m a lot more emotional with my family.

How have your relationships with other men helped you stay strong?

Guys can call me out of the blue when they need to talk about things. I will never say no to anyone, I am always available.

What was the importance of the private sector supporting your cause?

It’s been so big for us. Harley Davidson is more than just a motorcycle, it’s a lifestyle. To have them say they support us is immense.

What did you take from your experience with prostate cancer?

I think about it every day and I know that it has made me a better person. The little things in life are more important; I have no bad days now.

JOE ROSENGARTEN
 editorial@mediaplanet.com

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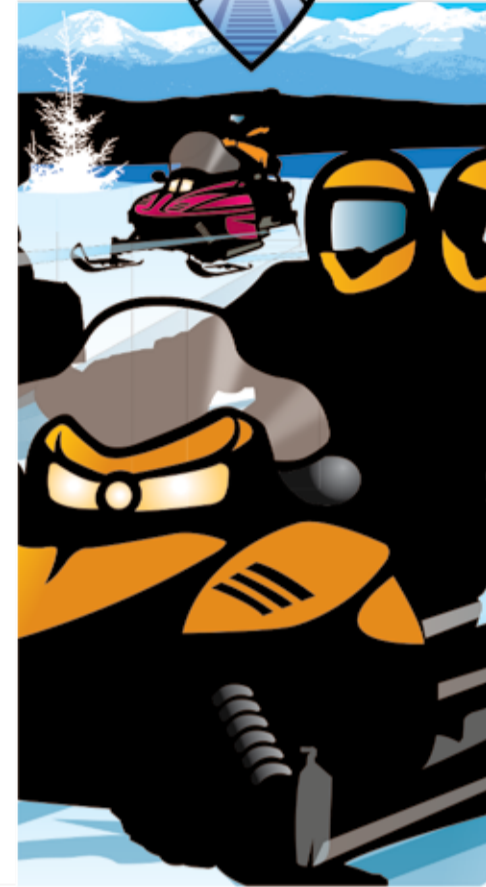
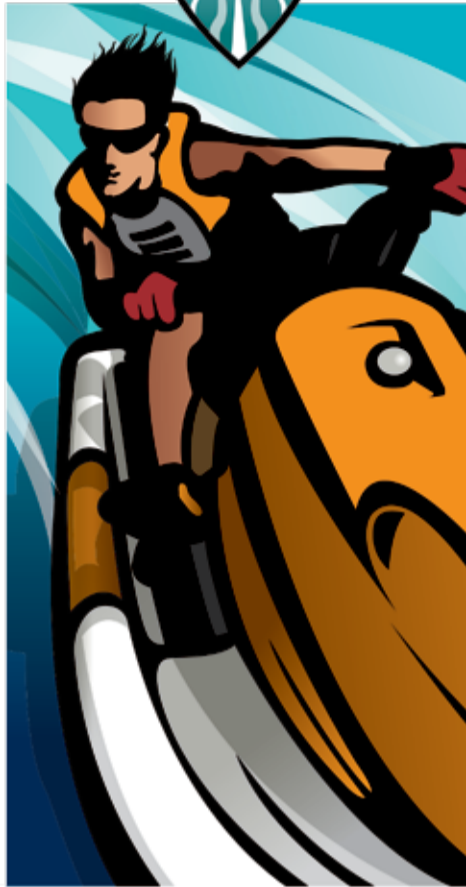


Navigating the maze of treatment options can be daunting.



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Northern BC
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Okanagan.....June 9

Alberta
Calgary June 15
Edmonton.....June 8
Rural Alberta
(Olds)June 22

Saskatchewan
Saskatoon June 15

Manitoba
Manitoba
(Winnipeg)May 25

Ontario
Durham
(Oshawa-GTE).....June 8
Golden Horseshoe
(Hamilton)..... June 15
Grand River
(Kitchener)June 1
Huron (Orillia)....May 25
Kingston-Quinte ..May 25
London.....May 26

Ontario continued
NiagaraMay 26
Nipissing
(North Bay) June 15
Ottawa.....June 1
Toronto West
(Peel).....June 8
Windsor.....May 26

Quebec
Montréal.....May 25

New Brunswick
Fredericton.....June 1
Moncton.....June 1
Saint John.....June 1

Nova Scotia
Annapolis ValleyJune 1
Halifax.....June 1

Prince Edward Island
PEI..... June 15

Newfoundland
Avalon..... June 15

Yukon
Yukon
(Whitehorse)June 8



Watercraft 2013 – Ontario

Eastern Ontario
(Rideau Ferry)July 13 Windsor.....July 28

ATV 2013 – Ontario

Ompah..... April 27 Ompah.....September 14

Snowmobile 2013 – Ontario

Georgian Bay
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Pembroke.....February 16

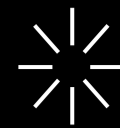
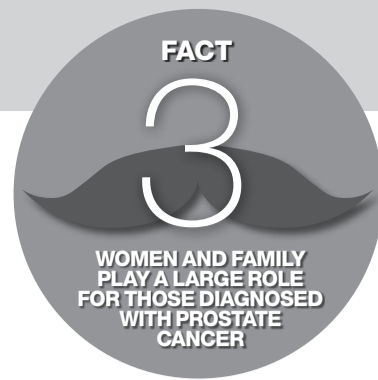


Working in partnership with the Prostate Cancer Fight Foundation PCFF.ca Prostate Cancer Fight Foundation

RideForDad.ca

NEWS

Advanced therapies will lead to new ways of combating treatment resistance



MODERN RADIOTHERAPY: SURGICAL CURE RATES WITHOUT THE SIDE EFFECTS



Dr. Andrew Loblaw
Radiation Oncologist and Clinician Scientist, Odette Cancer Centre Sunnybrook Health Sciences Centre, Associate Professor, Departments of Radiation Oncology and Health Policy, Management and Evaluation, University of Toronto.

The Vancouver Prostate Centre (VPC) located at Vancouver General Hospital, was established in the early 1990s and has grown to become one of the world's top facilities dedicated to prostate cancer treatment, research and education. Focusing on prostate disease at every level – research, prevention, screening and diagnosis, prognosis, treatment and education.

Global leader in research

Current therapies for advanced prostate cancer work by blocking androgen receptors (AR), which determine how the prostate regulates hormones, thereby delaying the progression of the cancer. Unfortunately, the conundrum researchers are starting to wrestle to the ground is that over time, cancer cells are able to evolve and survive the 'death blows' medicine inflicts on them. The VPC has built the world's largest bank of pre- and post-treated prostate cancer and constructed unique tissue microarrays (TMAs) of untreated and post-hormone or chemotherapy-treated cancers linked to clinical data to study changes in gene expression associated with treatment resistance. Analysis of prostatectomy specimens

after treatment has proved a very useful approach to study the molecular basis of treatment resistance, and is key to the development and credentialing of therapeutic targets.

PC-TRIADD has initiated over 20 new clinical trials and developed four new cancer fighting drugs that are undergoing commercial development, including OGX-011, shown to restore the efficacy of chemotherapy in patients who had become resistant to the drugs and prolonged the lives of end-stage patients for an average of seven months. It is now in global randomized phase three trials and data will be out within two years.

The VPC is involved in the Canadian Prostate Cancer Biomarker Network (CPCBN), an initiative for development of biomarker-driven approaches to management of prostate cancer. Three Canadian centres (U of Toronto, U of Montreal, and VPC) will pool their TMAs to develop a multi-parametric test on prostate biopsy to help stratify patients with low risk disease that could be safely put on active surveillance and avoid risks of therapy from those who will evolve into a life-threatening disease.

Laboratory for advanced genome analysis

The Laboratory for Advanced Genome

Analysis (LAGA) under the direction of Professor Colin Collins, is the genomics, computer science and bio-informatics core facility of the VPC, using next-generation sequencing, microarrays, bioinformatics and algorithm development to advance basic and translational genome science. LAGA provides a full suite of genomic, bioinformatics, and project management services to academic, government, and industrial communities, integrating its genomics capabilities with the bio-repository and functional genomics expertise at VPC. Identification of mutations, rearrangements, splice variants and fusion transcripts sets the stage for establishing their relationship to biological endpoints such as treatment resistance.

Drs. Art Cherkasov and Paul Rennie of the VPC are leading a new field of genomics, called computational chemogenomics to develop a novel class of prostate cancer drugs. Using a "virtual 3D approach" they rapidly search through millions of compounds looking for new treatments that can overcome the drug-resistance problem of prostate cancer. The research team takes potential therapies found by this rapid screening process and applies computerized simulation protocols which can theoretically determine whether or not it will be a successful treatment.

A new and exciting initiative involves The Stand Up To Cancer (SU2C) West Coast Dream Team. A \$10M award involves PC-TRIADD (the only Canadian member), UCSF, UCLA, and UC Davis, and will explore the idea that resistance to hormonal therapy occurs as a result of the prostate cancer cells using common cellular responses — what the Dream Team calls "adaptive pathways"—to escape the current prostate cancer therapies. The Vancouver team will use advanced genomics to study how prostate cancers adapt and overcome treatment therapies, and then use that information to design combination treatments that target the pathways the cancer cells are using to eliminate their chance of survival.

DR. S LARRY GOLDENBERG CM, OBC, MD, FRCS PROFESSOR AND HEAD, UBC DEPARTMENT OF UROLOGIC SCIENCES DIRECTOR OF DEVELOPMENT, VANCOUVER PROSTATE CENTRE, CHAIR, CANADIAN MALE HEALTH NETWORK

DR. MARTIN E GLEAVE MD, FRCS, DISTINGUISHED PROFESSOR, UBC DEPARTMENT OF UROLOGIC SCIENCES EXECUTIVE DIRECTOR, VANCOUVER PROSTATE CENTRE
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Radiation is a standard treatment option for men with prostate cancer. It affects both normal tissues and cancer cells, but cancer cells are more sensitive to being killed by the radiation. In the majority of cases, the normal tissues fully recover from the radiation exposure. Radiation can be given from outside (external beam) or inside the body (brachytherapy).

Many factors influence a decision of which treatment is best, but we believe that all men should be considered for both surgery and radiation. Seeing a radiation oncologist who specializes in prostate cancer is the best way to find out what the chances are of radiation being successful for you and what side effects you might encounter.

Brachytherapy

Brachytherapy is an outpatient procedure that gives excellent cure rates, excellent preservation of sexual function and virtually zero risk of needing diapers for urinary leakage (incontinence).

There are two ways to give brachytherapy. One way is to place a number of radioactive seeds permanently into the prostate using ultrasound machine to guide the accurate placement of the seeds. There are different materials that can be put inside the seed to deliver the radiation - in Canada, we most often use a form a radioactive iodine. Iodine gives off its dose over about 1 year - this is why this technique is often called low dose rate (or LDR) brachytherapy. The other brachytherapy technique is a temporary implant called high dose rate (HDR) brachytherapy. In this procedure, small tubes are inserted through the perineum. During the treatment, a radioactive seed is introduced into these tubes and left for 10 to 20 minutes, after which the seeds and tubes are removed.

Like LDR brachytherapy, HDR brachytherapy is also done as an outpatient procedure. Men are given medicine so they don't feel the procedure. The recovery from either procedure is about 1 hour and there are no restrictions from work, exercise or play afterwards. So theoretically, a man could have his prostate treatment in the morning and be golfing that afternoon!

External beam radiation

The latest technique (stereotactic body radiation - SBRT) allows us to deliver the same biological dose as brachytherapy with more precision and accuracy than any EBRT technique before. More exciting is that through a better understanding of the biology of prostate cancer and using the latest image-guided techniques, we can dramatically reduce the number of treatments. The current standard EBRT technique requires 1 treatment per day, 5 days and week for 7.5-8.5 weeks. SBRT requires only 5 total visits, has equal cures rates to brachytherapy and similar or lower side effects. Lastly and importantly, SBRT costs less than brachytherapy, which is very important when considering the sustainability of the public health-care system.

An option to consider

While not every man is a candidate for radiotherapy (brachytherapy or EBRT), we believe that all men with prostate cancer should have the opportunity to be considered for the treatment.

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SURVIVORSHIP: BENEFITING PARTNERS IN GOOD NEWS, BAD NEWS SITUATIONS

Despite the fact that approximately 4000 Canadians will die of prostate cancer this year, proportionately more men diagnosed with this disease can expect to survive than in years past. The fact is that prostate cancer has become less lethal because we now detect it earlier through PSA screening, and have newer and better treatments that can extend life, if not cure the disease outright.

The majority of men now treated for this disease in Canada can expect to be truly cancer free. This increased survivorship is quite a change from just a few decades ago, when the majority of men were diagnosed too late to be cured.

Side effects

Both surgery and radiotherapy—the two

primary curative treatments for prostate cancer—often impair basic bodily functions, most notably urinary control and penile erections. In addition, approximately half of all men treated for prostate cancer will be on androgen deprivation therapy (ADT, commonly called "hormone therapy") at one time or another. Although this can slow the progress of the disease, the loss of androgens—the hormones that give males their masculine traits—can severely affect a man's quality of life.

Survivorship

The sheer multitude of adverse effects from prostate cancer treatments has led to a new area in oncology, packaged under the broad headings of "survivor-

ship", "supportive care" or "psychosocial oncology". Given the breadth of side effects that impinge upon the physical, psychological and sexual health of men, it is not surprising that not just patients, but also their intimate partners, are affected (indirectly) by these treatments. Indeed, often the psychological burden is greater on the partner than on the patient himself. It is sadly far too common, but underappreciated, how the side effects of prostate cancer treatments can strain a couple's relationship.

You and your partner

Increasingly now we recognize that supportive care in prostate cancer needs to be extended to not just the patients,

but also their partners. Canada is truly a world leader in the newly emergent field of psychosocial oncology for prostate cancer patients and their partners... offering support beyond just treating erectile dysfunction. In major cancer centres in Halifax, Toronto, Calgary and Vancouver, survivorship programs are being developed to serve both patients and partners. These range from rehabilitation exercise classes to overcome the more debilitating side effects of ADT, to "prehabilitation" through preemptive educational sessions.

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Active Surveillance is an antidote to overdiagnosis of prostate cancer

Overdiagnosis is a malady of modern medicine. Clinical practitioners have eagerly embraced new diagnostic tools which offer the promise, and often deliver disease diagnoses at a point where they are more treatable and more curable.

The unintended and often unanticipated consequence of this is a stage shift towards diagnosis of much earlier conditions, and the diagnosis of 'disease' that in many patients would never have been diagnosed before death in the absence of the screening test.

This is an issue with prostate cancer screening, but characterizes many other diseases. Overdiagnosis and overtreatment of mild, non-life threatening disease occurs across the medical spectrum, including diabetes, chronic renal failure, hypertension, hyperlipidemia, breast, lung, and thyroid cancer.

Misconceptions

Overdiagnosis of prostate cancer occurs because small areas of low grade prostate cancer which pose little or no threat to life develop nor-

mally with age. The likelihood of harbouring these tiny bits of cancer is roughly equal to one's age as a percentage; 50 percent of men in their 50s, for example. The potentially lethal prostate cancer has cells that look more aggressive under the microscope (higher grade) and have higher volume of cancer. However, concern about overdiagnosis and overtreatment recently led the US Preventive Services Task Force to recommend against PSA screening. There is a clear and proven benefit to early diagnosis of aggressive prostate cancer, which can be picked up at a curable stage by PSA screening.

The problem with not screening is that the baby gets thrown out with the bathwater; ie, overdiagnosis would disappear but men with the aggressive type of prostate cancer would be detected too late for cure. An approach that would restrict treatment only to those with the aggressive type of disease would solve this problem. That is the rationale for active surveillance.



CALGARY'S PROSTATE CANCER CENTRE'S MAN VAN The only PSA mobile testing unit in Canada. Since its launch in 2009 8000+ men have had a baseline PSA test.
PHOTO: PROSTATE CANCER CENTRE CALGARY

Active surveillance

The concept of active surveillance means an initial approach of no treatment for the 40-50 percent of patients with the favorable type of prostate cancer. These patients are followed with periodic rebiopsies of the prostate, PSAs 2-4 times per year, and occasionally other tests (MRI). About 25 percent of these patients will be found to have the aggressive type of cancer over time and be treated, and cured in most cases. Three quarters of patients

never require treatment.

This approach, including the term 'active surveillance', originated in our group at Sunnybrook about 15 years ago, and has now been adopted worldwide. At Sunnybrook we have almost 1000 patients managed in this way. About 20 percent of the patients have died, but almost none have died of prostate cancer.

Men should appreciate that 'cancer' covers a wide range of diseases, not all of which are lethal, and not all require treatment. Indeed, the surveillance approach is now being applied to the analogous situation in other diseases, particularly breast cancer. For the remaining 50 percent of newly diagnosed patients, active surveillance represents the best technique to reduce the problem of overtreatment. Reducing overtreatment also makes screening for prostate cancer with PSA much more appealing.

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COMBINES FOR CURES™

SAVING LIVES IN RURAL COMMUNITIES. ONE MAN AT A TIME.

Combines for Cures is a Prostate Cancer Centre initiative to ensure rural-based men obtain a baseline PSA test. Our goal is to raise money in rural Canada through grain and cash donations to purchase Man Vans™ that will stay in the communities where the money is raised. Combines for Cures allows us to go where we are needed – to the men in rural Canada.

For more information about the work of the Prostate Cancer Centre,
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