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Prostate problem primer

According to experts at the Vancouver General Hospital, "Gram for gram, the prostate gland is the most diseased organ in the human body." And women don't even have prostates!

Some prostate conditions, such as prostatitis (an inflammation of the prostate), can occur in men of any age. About half of all men will experience symptoms of prostatitis during their lifetimes. Other diseases, such as benign prostatic hyperplasia (BPH) and prostate cancer, become more common as men age. A man over 50 has a roughly 50 per cent chance of developing BPH, or enlargement of the prostate. And, although the risk of a man developing prostate cancer before the age of 50 is low, men in Canada have a 13.2 per cent lifetime probability of developing prostate cancer -- that works out to 1 man in 7.6.



But all prostate diseases are not created equal. And even a potentially life-threatening disease such as prostate cancer, if diagnosed early, can be treated effectively, even cured. Let's consider these three most common prostate problems more closely.

Prostatitis is not cancer and having prostatitis does not increase a man's risk of developing prostate cancer. What is it? Simply put, prostatitis is an infection or inflammation of the prostate gland.

Acute bacterial prostatitis, an infection of the prostate caused by bacteria, usually starts suddenly. "One evening I woke up with a fever, chills, nausea, and an urgency to urinate," writes Rudy. "While urinating, I felt a strong involuntary urinary spasm, which completely cut off my urine stream -- very painful." Other symptoms include pain in the lower back and between the legs. Doctors treat this form of prostatitis with antibiotic drugs.

Chronic prostatitis, which can be bacterial or non-bacterial, is more common and usually less severe. Still, the problem is chronic; it keeps coming back time after time. And sometimes these outbreaks are debilitating, as Mark reports: "My symptoms (in the worst outbreaks) were these: dull but intense perineal pain (vaguely located between scrotum and the anus), frequency (about four times a night and about every hour and a half during the day), and a constant sense of urgency (a component of the feeling of pain) that returned within ten or twenty minutes after urination." Chronic prostatitis can be hard to treat, but, often, taking antibiotics over a long period of time does help.

Benign Prostatic Hyperplasia (BPH) is very common in older men, but not all men with BPH experience symptoms. (Autopsy studies have shown some degree of BPH in about 90 per cent of men over 80 years old.) BPH is not cancer, does not become cancer, and does not indicate that a man will develop cancer. It is a benign or non-cancerous overgrowth of the prostate.

The symptoms of BPH usually come on gradually. As the prostate gets larger, it can slowly narrow the urethra, making urination difficult and interfering with the bladder's ability to expel urine. Typically, men with BPH experience one or a combination of these signs: trouble starting and stopping urination; a weak urine stream, often accompanied by dribbling at the end of urination; an increased frequency of urination, which can be especially troubling at night; and an urgent need to urinate or a feeling that, even after urination, the bladder is still full.

"I'd be up a couple times every night because my bladder wouldn't empty completely," says Bob. "My stream was so weak, it'd split in two and be hard to aim. It got so bad I had to sit on the toilet." When his frequent need to urinate interfered with his golf game, Bob consulted his doctor.

There are many treatments for BPH, including surgical removal of part of the prostate, the use of medications (alpha blockers and enzyme inhibitors), and minimally invasive therapies that use non-surgical methods (e.g., heat from microwaves or radio waves) to destroy specific areas of the overgrown prostate.

Prostate cancer is the most common cancer in Canadian men. According to the Canadian Cancer Society, an estimated 22,300 Canadian men will be diagnosed with prostate cancer in 2007, and 4,300 will die of the disease. But what is prostate cancer?

Obviously, prostate cancer is cancer that starts in the prostate gland. And a cancer cell is an uncontrolled, abnormal, and potentially invasive cell. In other words, a cancerous cell no longer responds to the body's usual control processes that regulate cellular growth and death, it has lost its normal structure and cannot function as it should, and it can escape the area in which it first grew and invade other parts of the body.

In its early stages, prostate cancer may not cause any signs or symptoms. These often appear only when the tumour is large enough to interfere with urination or ejaculation. Two tests are useful for detecting prostate cancer in its early stages, before men experience symptoms: the prostate-specific antigen (PSA) blood test and the digital rectal examination (DRE). CPCN urges men in their forties to start a yearly regimen of PSA testing and digital rectal exams.

More tests, such as a biopsy, are used to distinguish prostate cancer from BPH or other conditions that also enlarge the prostate or cause a higher than normal PSA level. But many men credit these two tests, and particularly the PSA test, with saving their lives. As Ray writes, "PSA blood testing saved my life.... I had no idea what a prostate was or what its role was. When the PSA numbers rose significantly within a year, my family doctor sent me to a urologist.... I insisted on a biopsy, and the rest is history."

The CPCN's online guide "Understanding Prostate Cancer" provides detailed information on prostate cancer and its diagnosis and treatment. As well as CPCN resources, you may find the following websites and online documents useful:

[The Canadian Prostate Health Council](#)

[The Prostate Centre at Vancouver General Hospital](#)

[The Prostate Centre at Princess Margaret Hospital](#)

Prostatitis

Canadian Prostate Health Council, [Prostatitis](#), CPHC Online Pamphlet
Murray Koffler Urologic Wellness Centre, [Prostatitis: A Patient's Guide](#)
[Prostatitis Foundation](#)

BPH

Canadian Prostate Health Council, [BPH](#), CPHC Online Pamphlet
The Mayo Clinic, [Enlarged Prostate \(BPH\)](#)

Prostate awareness and Rider pride

by John Hoffman

Prostate cancer support groups spend considerable time thinking of new ways to raise public awareness about the cancer that affects men more than any other.

CPCN directors Steve Pillipow and Robert Watson got a brain wave last summer when they saw the dog tags issued to delegates at last year's CPCN conference in Calgary. "We liked the look of the tags and the theme that we were fighting a war on prostate cancer," says Pillipow, the vice-president of CPCN's board of directors. "Robert and I got together and talked about using these dog tags as an awareness tool in our community. We came up with the idea of doing it at a Saskatchewan Roughrider game."



As soon as they got home from the conference, Pillipow, Watson, and some Saskatchewan colleagues arranged a meeting with Rider officials. Six weeks later, they were among 65 volunteers, selling tags as fans arrived at the September 30 game between the Riders and the Edmonton Eskimos. The football club generously donated \$1000 to help pay for the dog tags, and team officials smoothed the way for volunteers. The tags bore the slogan "I'm helping to win the war against Prostate Cancer" along with the Roughrider logo and the address of the CPCN website.

"We sold 3000 tags that day," says Pillipow. "Several groups helped us, the SaskTel Pioneers retirees, Regina CPCN support group and other volunteers. We targeted everybody, not just men. Our view was that prostate cancer affects everybody, so we need to educate and raise awareness among the entire population."

Pillipow was heartened by the response he got. "Many people said things like, 'It's about time someone started talking about prostate cancer in public. Keep up the good work. Here's my donation.' We were asking for a minimum donation of \$2.00 but many people donated more than that."

This year, the dog tag event will be held on September 2. "The Labour Day weekend game is one of the big games of the year," says Pillipow. "We're hoping to hand out 5000 dog tags this year."

The success of the Saskatchewan initiative has prompted CPCN to look at the possibility of taking the dog tag day to every CFL city. Earlier this summer, Watson and Wally Seeley, CPCN's executive director, discussed the idea with CFL Commissioner Mark Cohon. "Mr. Cohon is very sympathetic to our cause," Seeley explains. "He is not in a position to decide what charitable events each team will support. However, he did offer to introduce us to the management of every CFL club and that may help smooth the way for us."

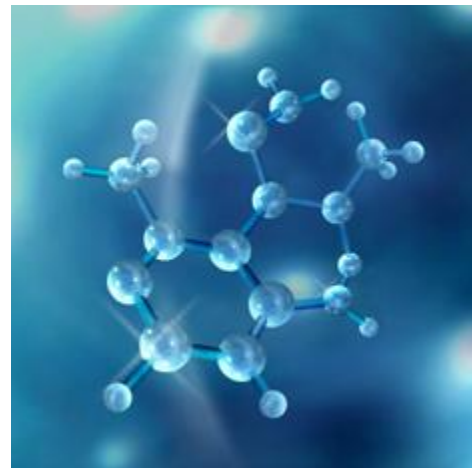
CPCN will be working on this initiative in the coming months. With a little luck, and hard work, we may see Prostate Cancer Dog Tag Days in every CFL city in the coming years.

Molecule helps predict prostate cancer outcome

In August 2007, researchers at the Mayo Clinic reported having identified an immune molecule (B7-H3) that "appears to play a role in prostate cancer development and in predicting cancer recurrence and progression " after treatment.

The study, published in *Cancer Research*, examines the connection between high levels of B7-H3 and a poor prostate cancer prognosis or outcome.

Nearly all prostate cells, whether normal, pre-malignant, or cancerous, have this molecule on their surface. But tumour cells always and often increasingly display B7-H3 as prostate cancer develops, even after anti-hormone therapy -- the most common treatment for advanced prostate cancer. "Because B7-H3 is present in all prostate cancer tumours, and marked levels predict recurrence, we are able to forecast with much greater certainty the likelihood of cancer progression, regardless of therapeutic intervention," reports Eugene Kwon, Mayo Clinic urologist and senior investigator.



What Mayo researchers discovered was that patients with the highest levels of B7-H3 within their prostate tumours (19.8 per cent) were over four times more likely to experience cancer progression than those with weak levels of B7-H3. Also, moderate levels of the molecule correlated with a slightly higher risk of recurrence (35 per cent). The estimated survival rates at five years after surgery were 55 per cent for patients with high B7-H3, 86 per cent for those with moderate B7-H3, and 92.1 per cent for patients with tumours of weak B7-H3 intensity.

This research may have significant implications. Currently, the most used molecule for diagnosing and assessing the growth of prostate cancer is the prostate-specific antigen (PSA) or the prostate-specific membrane antigen (PSMA). But, unlike B7-H3, PSA tends to leave prostate cancer cells and wander through the body. Because B7-H3 sticks with prostate cancer cells and does not appear to migrate, it may be a particularly useful "target" for therapy.

Hopes are high for the future. "This discovery will allow physicians to individualize treatment and observation plans for prostate cancer patients," reports Timothy Roth, lead author of the study. "Being able to tell a patient his specific risk after surgery, and perhaps even prior to surgery, will be a huge step forward."

[Read the Mayo Clinic press release.](#)

[Access the article in *Cancer Research*, vol. 67, no. 16, 7893--7900.](#)

[Read "Molecule that predicts course of prostate cancer discovered" from the CBC.](#)

Prostate Cancer Conference 2007

It's not every day you can talk to a Canadian media icon, Red Green, to Ontario's Lieutenant Governor, David Onley, and to some of North America's most prominent medical practitioners and researchers specializing in prostate cancer. The 2007 CPCN/CPCRI Conference (September 27 to September 30) promises to be a landmark gathering that offers something for everyone.

Representatives from support groups have a busy agenda ahead learning how they can be more effective in maintaining and energizing their membership and how community outreach can have a real payback in terms of saving lives. David Onley, Ontario's new Lieutenant Governor and City TV anchor will give you insights into using local media to raise awareness.



The scientific agenda of the conference will embrace the latest research related to treatment, prevention, and cure featuring a number of doctors and scientists including Michael Baker, Laurence Klotz, Ian Thompson, Michael Pollak, Neil Fleshner, Joyce Davison, Kerry Courneya, Pierre Karakiewicz, Robert Nam, Tom Pickles, Yves Fradet, Kim Chi, Fred Saad, Colleen Nelson, and Robert Bristow. To find out more about these people and the conference, consult the [CPCN](#) and the [CPCRI](#) websites.