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Complementary and Alternative Medicine (CAM): Heart Health and Prostate Cancer

"If I'm going to make any recommendation, it better be good enough that, if I'm wrong, you'll still be in better health." So says Dr. Mark Moyad, renowned specialist in preventative and complementary medicine and speaker at both last year's CPCN national conference and the one to take place in September 2009. Dr. Moyad's new book, *Complementary Medicine for Prostate Health*, is due out in 2010. Co-written by urologist Ian Thompson, Jr., this book will be essential reading for all men wanting expert advice about "what works and what's worthless" in the maintenance of prostate health.



And Dr. Moyad's perspective is the right way to think about complementary or alternative medicine for men with prostate cancer --- it should not only do no harm; it should do some good.

Complementary and alternative medicine (CAM) is an attractive proposition for many men diagnosed with prostate cancer. Survival rates are comparatively high, and this disease is often curable by surgery or radiotherapy if it is caught before cancer has escaped the prostate gland. So there will be numerous prostate cancer survivors around for a good number of years after they have completed primary, standard treatments, men looking to protect themselves against recurrence. And some prostate cancers have a long period of latency and are monitored through active surveillance. Men with these slower growing tumours have time to use nutritional supplements and dietary and lifestyle changes to help improve their general health and cancer prognosis.

Probably most compelling, however, is the possibility that CAM can affect the survival of men with prostate cancer by improving their general health. An interesting fact: The Prostate Cancer Prevention Trial documented 10 deaths from prostate cancer among 18,000 men, but 1,113 men died of other causes. In fact, according to a series of articles by Dr. Moyad and his colleagues, in the first 10 years after treatment for prostate cancer, one of the leading causes of death was a cardiovascular event. (The series of articles is entitled "Lifestyle recommendations to prevent prostate cancer" and was published in the May 2004 issue of the *Urological Clinics of North America* journal.)

In keeping with Moyad's injunction to leave a man with prostate cancer in better health after complementary therapy, even when that therapy doesn't work as expected, many urologists are now letting their patients know that heart health is a priority.

Cardiovascular and Prostate Health

"When we recommend CAM to our patients," writes Dr. J. Curtis Nickel, "we will do them a great service by emphasizing approaches that can affect both their cardiovascular and prostate health." Some heart-healthy strategies for the man with prostate cancer include diets that promote the loss of abdominal fat

and that lower blood pressure and cholesterol (especially low-density lipoprotein cholesterol or "bad" cholesterol), quitting smoking, engaging in moderate but regular physical activity (including both aerobic exercise and strength training), and increasing the consumption of fruits and vegetables, omega-3 fatty acids, soluble fibre, and, perhaps, phytoestrogens.

Research in the lab links prostate cancer cell proliferation with dietary and saturated fat. However, outside the lab, the effect of men following a low fat diet is difficult to gauge. One study looked at whether intensive lifestyle changes, including a low fat vegan diet, would affect the progression of prostate cancer. About 90 men with prostate cancer who had elected active surveillance were divided into two groups; one followed the comprehensive lifestyle intervention program and one did not. After 1 year, the group following the intervention program had a 4% decrease in PSA while the other group had a 6% increase. ([See an abstract of this study.](#))

Still, in the large Prostate Cancer Prevention Trial, the only dietary change that had a documented affect on PSA was the reduction of calories. It didn't seem to matter where those calories came from---protein, carbohydrate, or fat.

Omega-3 fatty acids (found in fish oil), tomato sauce, and soluble fibre have also been studied in connection with prostate and heart health. [A 2006 study](#) of just fewer than 400 men with prostate cancer reported that "fish and tomato sauce may offer some protection against disease progression."

And flaxseed, which contains fibre as well as plant estrogens and omega-3 fatty acids, has been shown to reduce cancer proliferation rates in men scheduled for a prostatectomy. [This interesting study](#), which reported in December 2008, assigned men scheduled for prostate cancer surgery to one of four groups: 1) a control group following a usual diet, 2) a group following a flaxseed-supplemented diet, 3) a group following a low-fat diet, and 4) a group following a flaxseed-supplemented, low-fat diet. The conclusion: flaxseed, but not dietary fat restriction, reduced prostate cancer proliferation rates. (Those on the low fat diet did reduce their cholesterol levels, however.)

Phytoestrogens, estrogen-like substances found in some plants, have received considerable study as a possible benefit to men with prostate cancer. Most of these studies have involved taking soy supplements. But one that looked at a soy-rich diet concluded that eating four slices of a bread rich in HT soy grits favourably influenced the PSA level and the free to total PSA ratio in patients with prostate cancer. (Click [here](#) for an abstract of this study.) It should be noted, however, that although there is research supporting the cholesterol-lowering effects of soy, the American Heart Association concluded in 2008 that the main benefit to cardiovascular health may be "in using soy proteins to replace foods high in animal protein that contain saturated fat and cholesterol."

A research team out of McMaster University would agree that avoiding animal proteins high in saturated fat is heart healthy. It reported just this week, after analysing the results of over 200 research papers investigating the relationship between food and heart health, that the Mediterranean diet is highly protective against coronary heart disease. And what are the components of that diet? You guessed it: lots of fruits and vegetables and whole grains, healthy fats such as olive and canola oil, and protein from nuts, legumes, fish, or meats lower in fat, such as chicken. According to study co-author Dr. Sonia Anand, here's what to avoid: "Hot dogs, baloney, red meat --- that's associated with an increased risk of heart disease. And that's very, very consistent with what our colleagues in cancer are finding." (To watch a CBC interview with Dr. Anand, visit [this web page.](#))

Once again, the connections between prostate and heart health appear to hold up.

And one of the most interesting of these possible connections was described just recently. Researchers began investigating why men in prostate cancer prevention and screening trials who took statins, cholesterol-lowering drugs, had lower PSA levels and seemed less likely to develop prostate cancer.

Of course, these links between general health, heart health, and prostate health are not surprising. We all have a fairly good idea of which foods and lifestyle choices are good for us and which are not. The trick is to make good choices more often than not!

Buyer Beware: The Dark Side of Complementary and Alternative Medicine

"Doubt is the incentive to truth," wrote American clergyman Hosen Ballou over 150 years ago. And every man who has surfed the Internet to find information on complementary or alternative therapies for prostate cancer should heed his words. Another important adage --- "If it seems too good to be true, it's probably false."

Indeed, online cancer treatment scams have become so common and worrisome that Canada's Competition Bureau launched a special initiative last year --- Project False Hope. It targets online cancer-related health fraud.

This focus is particularly relevant. In 2006, a Statistics Canada survey found that 58 per cent of adults search for health-related information online, and almost a quarter of these searchers were looking for alternative remedies. The most troublesome statistic: only 38 per cent of those scanning the Internet for health-related material consult healthcare professionals about the information they find online. By not consulting experts, they leave themselves open to scams that can cost them dearly.

"Swindling people living with cancer is one of the most despicable forms of fraud," says Andrea Rosen, acting deputy commissioner of the Competition Bureau. Unfortunately, in spite of the good work done by Project False Hope, the situation is still one of buyer beware.

Under law, the Competition Bureau is empowered to investigate possibly fraudulent claims, demand that companies remove or modify claims found to be misleading or false, and, if a company does not comply, refer the matter to a competition tribunal or to "the Attorney General, who determines whether a prosecution should be undertaken."

In other words, years after a prostate cancer patient has reported what he perceives to be health fraud, the company that he thinks tricked him into purchasing useless therapy may still be operating. Perhaps it has "complied" by modifying brochures and online publicity. Maybe it now has a disclaimer in small print



on the back page of a website. And it may have been forced to give the swindled man his money back, which is gratifying. But his mistaken purchase of a "cure" may have robbed him of more than cash. By choosing a worthless therapy over an effective one, he may have lost precious time, or health itself.

Take the recent case of Bioenergy Wellness Inc., which does business under the name of the Energyworks Wellness Centre. The Canadian company sells the idea that delivering magnetic pulses to the body stimulates health and repairs diseased tissue; it also markets the health benefits of what it calls "far infrared sauna." Project False Hope called into question the company's claims that these therapies treated or prevented cancer, calling them "unsubstantiated" (not backed by legitimate research or proof).

What was the result? You might well ask. The company was forced to change the wording on its website and post a notice stating that it had entered into "a consent agreement with the Commissioner of Competition." This notice is quite bland. And one finds it --- on a back page --- only by clicking on the innocuous front-page link labelled "Notice regarding Papimi, Magnapulse and Far Infrared Sauna":

Certain representations previously made by Bioenergy Wellness Inc. (Energyworks Wellness Centre) may have stated or given the general impression that Papimi, Magnapulse and Far Infrared Sauna are effective in preventing or treating cancer. The Commissioner of Competition has concluded that these representations are not based on an adequate and proper test of Papimi, Magnapulse and Far Infrared Sauna, and therefore are reviewable under paragraph 74.01(1)(b) of the *Competition Act*.

Oh yes, people who purchased devices or services from the company "for cancer prevention or treatments" have until May 2009 to claim a refund.

Don't misunderstand. Project False Hope is doing important and necessary work. It has, as of February 2009, taken action against almost 100 Canadian-operated websites, and most have complied with demands "to modify, remove, or substantiate cancer-related claims made to promote products or treatments."

Also, bringing legal pressure to bear is only one part of Project False Hope's mandate. It's other focus, consumer education, offers the best chance to shut down companies engaging in cancer-related health fraud. "Consumers should be sceptical of health-related products or services that look too good to be true, and should always speak to a healthcare professional before trying any new treatment," advises Andrea Rosen.

Good advice indeed. But what does being sceptical mean in this day and age? We all know that it is very easy and inexpensive to lie online. So how do those with prostate cancer protect themselves?

Project False Hope provides some excellent tools. One is a quiz that tests how aware you are of the tactics health scammers use to convince you that they are legitimate. (To take this quiz, click [here](#).)

Another anti-fraud tool is a mock website that the bureau has created to show consumers what a typical online cancer scam looks like. When you move your mouse over various portions of the website, pop-up bubbles analyse the pictures and text, pointing out the specific tactics being used to con you. ([See this website](#).)

Here are some of the most important points conveyed in Project False Hope's consumer education initiative:

- *Natural* or *herbal* doesn't mean safe; monkshood and mushrooms both grow in the wild, and both can be toxic.
- A cure-all rarely cures much at all.
- Just saying so doesn't make it so. Beware of feel-good words hearkening back to simpler times when you were younger and healthier, words such as *traditional* or *time-proven* or *mother-tested*. Also, beware of words suggesting that a treatment is new and improved (and proven), words such as *cutting edge* or *scientific* or *revolutionary*. Being old or being new is not the point when it comes to a treatment; whether it works is.
- We are talking about your health here. Getting your money back if something goes wrong or doesn't work just doesn't cut it. You want expert evidence to show that the therapy is safe and effective. Remember, testimonials and success stories are not evidence, and may not even be true.
- It's easy to look good online. (Think online dating here!) It pays for a fraudulent "cure" to be presented professionally on the Web. A site may boast a trendy design, pictures of labs and doctors and researchers and happy clients, many charts and bar graphs, and convincing text. And the whole thing could be a fraud. Even websites written with so much medical jargon that you think they must be the real deal, or ones presenting so many credentials, research references, or study results that they seem convincingly scientific, may be scamming you.
- Any website is suspicious that tries to separate you from professional medical care or from the standard and approved treatments for your prostate cancer.
- There is always time to make the right choice. A scammer will try to hurry you along in your decision-making process. Creating a false sense of urgency is in the scammer's interest because it prevents you from doing sufficient research and from consulting recognized experts.

And here is the bottom line. You need to consider any complementary or alternative therapy from every angle. Do comprehensive research yourself. But, more important, get the opinions of all your medical specialists. (Your radiotherapy oncologist, for example, might have concerns about different complementary therapies than the ones that worry your surgeon or your medical oncologist.)

Because it just seems right somehow to use the power of the Web for good, here is a list of Internet resources that can help you recognize cancer scams or find legitimate, beneficial complementary therapies.

Spotting or Tracking Scams

Competition Bureau Canada

<http://www.competitionbureau.gc.ca/eic/site/cb-bc.nsf/eng/home>

The Canadian Health Care Anti-Fraud Association

<http://www.chcaa.org/blog/>

Cure-ious? Ask (How to spot a cancer scam from the U.S. Federal Trade Commission)

<http://www.ftc.gov/curious>

Quackwatch

<http://www.quackwatch.org/>

National (U.S.) Council Against Health Fraud

<http://www.ncahf.org/>

U.S. Food and Drug Administration Cancer Fraud Updates

<http://www.fda.gov/consumer/updates/cancerfraud061708.html>

Getting Good Advice on CAM

B.C. Cancer Agency: Complementary and Alternative Cancer Therapies

<http://www.bccancer.bc.ca/PPI/UnconventionalTherapies/default.htm>

CAMline: The Evidence-Based Complementary and Alternative Medicine Website for Healthcare Professionals

<http://www.camline.ca/>

Complementary and Alternative Medicine (from the U.S. National Cancer Institute)

<http://www.cancer.gov/cancertopics/treatment/cam>

National (U.S.) Center for Complementary and Alternative Medicine

<http://nccam.nih.gov/>

Natural Standard: The Authority on Integrative Medicine

<http://3rdparty.naturalstandard.com/frameset.asp>

Public Health Agency of Canada: Complementary and Alternative Health

http://www.phac-aspc.gc.ca/chn-rcs/cah-acps-eng.php?rd=complement_eng

Immunotherapy: An Overview

By David L.B. MacQuarrie

Just a few days ago, on April 14, 2009, Dendreon Corporation announced that its prostate cancer vaccine Provenge prolonged the survival of men with advanced prostate cancer. Well, actually, the press release said that the company's "pivotal Phase 3 IMPACT study of PROVENGE® (sipuleucel-T) in men with advanced prostate cancer met its primary endpoint of improving overall survival compared to a placebo control." Both mean approximately the same thing. The company's stock shot up, even though the U. S. Food and Drug Administration (FDA) may request a confirmatory trial. Why might it make this request?



Provenge is the first vaccine immunotherapy up for FDA approval. The GVAX vaccine failed in late-stage clinical trials last year. "The successful outcome from the Phase 3 IMPACT study provides validation of the long-pursued goal of harnessing the human immune system against a patient's own cancer," said Dr. Mitchell H. Gold, president and CEO of Dendreon.

But what is immunotherapy? And how might it help in the fight against prostate cancer?

To understand the theory behind immunotherapy, you will find it helpful to get a clear picture of what it is exactly that the body's immune system does. The body's immune system is designed to fight off invading cells that it thinks might harm you. In fact, every day, the immune system might detect and destroy dozens of microscopic bacteria and viruses. For the immune system to be able to recognise the bacteria and viruses as harmful, however, it must be exposed to them. Only after exposure does it learn to recognise these attackers as harmful and worth fighting. Unfortunately, the immune system is not quite as efficient when it comes to fighting off some invaders, including cancers.

So researchers are looking for ways to teach the body how to recognise cancer as dangerous, and they are turning to the history of vaccine development for answers. As noted, the only way that your immune system can learn to fight off a new invader is for it to be exposed to it. But being exposed to some bacteria or viruses, even once, can be life threatening. For this reason, then, scientists from the eighteenth century to the present have developed preventive vaccines to teach the body how to fight particularly dangerous invaders. Preventive vaccines might contain a weakened virus, a killed whole virus, or just a small part of a virus. The idea is to get your body to develop a way to fight that virus off should you come into contact with it again.

Few cancers are caused by bacteria or viruses, so, for the most part, developing preventive vaccines for cancer isn't very practical. But therapeutic vaccines that stimulate the immune system to recognize and fight certain proteins specific to cancer cells have been reported as effective, and they have been tested in research on a number of different cancers, including melanoma, non-Hodgkin's lymphoma, and prostate cancer. Each of the therapeutic vaccines currently being tested in men with advanced prostate cancer works in a slightly different fashion, but all are designed to harness the immune system's ability to fight off disease and to teach that immune system to combat prostate cancer cells.

But now to the therapeutic vaccine getting all the publicity these days--- Provenge. The vaccine has been tested in the fight against metastatic prostate cancer. Provenge is composed of a person's own immune cells that have been isolated from the blood and then sensitized to prostatic acid phosphatase, which is highly expressed in over 90% of all prostate cancer tumours. These sensitized cells are then infused back into the patient. Once inside the patient, the modified cells prime the patient's immune system to recognize and destroy prostate cancer cells roaming throughout the body.

An earlier phase III study of Provenge (D9901) involved 127 men with advanced prostate cancer that had spread beyond the prostate and grown resistant to hormonal therapy. Eighty-two of the men received the vaccine, while the other 45 received a placebo. Patients given the vaccine experienced an average 18% increase in survival, compared with those on a placebo.

Researchers tracked patient outcomes for three years. The patients taking the vaccine survived an average of 25.9 months, compared to 22 months for those not taking the vaccine. In the terms a research scientist uses, those receiving Provenge showed a median survival benefit of 4.5 months and a three-fold improvement in survival at 36 months. And by the three-year mark, 34% of those taking the vaccine

remained alive, compared with just 11% in the placebo group. The side effects were minimal: some fever and shaking for a few days at the beginning of therapy. These symptoms did not persist throughout the course of the treatment.

When the FDA, against a 13-4 recommendation of its own panel of experts, refused approval for Provenge and asked for more data, another phase III study was undertaken (D9902B). That's the one reporting success this month. Detailed results from this study will be presented at the plenary session of the American Urological Association's Annual Meeting in Chicago on Tuesday, April 28. What we know now is that the randomized, double-blind, and placebo-controlled study involved 512 men from various cancer centres, men who had metastatic hormone-resistant prostate cancer. And we know Dendreon reports that Provenge "significantly prolongs survival" in these men.

"It certainly sounds good, but we really need to see the details," says Otis Brawley, chief medical officer of the American Cancer Society. "I will be watching with interest and some hope." But there are always many hoops to jump through when it comes to FDA approval, especially in first-of-its-kind treatments.

Perhaps, too, the flip side of the immunotherapy coin has poisoned the waters somewhat for legitimate medical innovators. There are, after all, scores of questionable clinics claiming to use this approach successfully; their websites are crammed with unlikely tales of survival and remission. (See the article "Buyer Beware: The Dark Side of Complementary and Alternative Medicine.")

Men with prostate cancer must always keep in mind that immunotherapy is just emerging as a possibly viable treatment option. As of yet, no therapeutic vaccine has been approved by the FDA for use in prostate cancer or in any other cancer. But researchers are optimistic that therapeutic vaccines might soon prove to be another effective strategy to help prolong the lives of men with advanced prostate cancer.

CPCN National Conference 2009

By Graham Mercer

The conference program committee has designed the sixth annual CPCN national conference so that delegates will not only hear from internationally renowned presenters, they will also have ample opportunity to share their personal, family, and support group experiences. The focus of this "get together" will be on providing a little quality time for relaxing, sharing, and learning. As we say in Newfoundland and Labrador, "You're going to have a time, my boy."

The presenters include

Dr. Mark A. Moyad, M.D., M.P.H.

Dr. Moyad occupies an endowed position created and funded entirely by his patients. He is the Phil F. Jenkins Director of Preventive & Alternative Medicine at the University of Michigan Medical Center (Department of Urology). His endowed position allows him to be refreshingly objective and candid about what works and what is worthless to stay healthy.



The primary author of over 80 medical articles, Dr. Moyad is the editor-in-chief of the medical journal *Seminars in Preventive & Alternative Medicine*, published by Elsevier. He is also an editor or regular reviewer for numerous medical journals and the co-author or author of five books. More than 2,300 Web sites refer to his work. Additionally, he has maintained a consulting practice in preventive and alternative medicine for the last 10 years. During this time, Dr. Moyad has developed a unique and fundamental framework for disease prevention, one that recognizes the importance of evidence-based objective investigations of both alternative and traditional treatments.

Dr. John Mulhall, M.D.

Dr. Mulhall is an associate professor in the Department of Urology at Cornell University Weill Medical College and the director of the Sexual Medicine Program. He also has a joint appointment with the Department of Urology at Memorial Sloan Kettering Cancer Center.



A native of Dublin, Ireland and a graduate of the University College Dublin Medical School, Dr. Mulhall followed his general surgery training in Ireland with a urologic residency at the University of Connecticut School of Medicine. He received his fellowship subspecialty training in male sexual and reproductive dysfunction at Boston University School of Medicine. The Sexual Medicine Program encompasses the evaluation and treatment of males with erectile dysfunction (ED). His clinical research interests include postoperative preservation of erectile function following radical pelvic surgery, erectile dysfunction as a harbinger of coronary artery disease, and androgen supplementation in males and females with sexual dysfunction.

He is the recipient of numerous awards, including the Robert P. Nelson Award for his research, which was awarded by the Sexual Medicine Society of North America. He is also on many committees of national and international organizations pertaining to his specialty. He is an internationally recognized speaker on the subjects of male and female sexual dysfunction, a specialty section editor for the *Journal of Urology*, and a reviewer for multiple journals. Dr. Mulhall has published in excess of 50 papers in peer-reviewed journals, and has authored many book chapters on topics related to his field of expertise.



Dr. T. A. Loeffler, Ph.D.

Dr. Loeffler (know as TA) is a professor of outdoor recreation at Memorial University of Newfoundland. She is attempting to complete "The Seven Summits," climbing the highest peak on each of the seven continents. Her work and adventures have taken her to 35 different countries and five

different continents. TA regularly inspires audiences big and small with multimedia presentations of her various adventures. She is a gifted speaker who has her audiences laughing out loud one moment and deep in thought the next. She tailors each presentation to the unique needs of the audience. TA Loeffler is a unique combination of outdoor adventurer, author, filmmaker, photographer, educator, and motivational speaker. She has received international and national recognition for her innovative teaching and motivational speaking.