# PCCN Markham

Newsletter

Volume 20 Issue 7 March, 2019

## NEXT MEETING

## Tuesday, March 12, 2019 - 7:30PM

***St. Andrews Presbyterian Church – Main St Markham***

***Rose Room - Downstairs***

***Details below***

***(Free Parking & Room access off George Street)***

## SMALL GROUP DISCUSSION/ROUND TABLE

***Have a question? Looking for case similar to yours?***

**Survivors/Partners discuss issues, share concerns**

**Group is moderated by your peers**

## IN THIS ISSUE …

# PCCN Markham

Newsletter

**Volume 20 Issue 7** **March, 2019**

## Getting a Second Opinion

After receiving a life-changing diagnosis such as prostate cancer, men sometimes want to seek a second opinion from a different doctor. This is especially important if you do not feel comfortable or confident with your doctor.

Seeking a second opinion from another doctor is common, especially if you or your doctor is unsure about which course of treatment is best for you. If you are considering getting a second opinion, you may want to have an open and honest conversation with your doctor to explain your concerns and the reasons you are seeking a second opinion. Thank them for what they have done and let them know you appreciate all their help, but that you want to try to find someone else who is more suitable for your needs at this time.

Your doctor will send your medical records (including results from blood tests and biopsies) to another doctor, who will then get in touch with you.

Remember that it is your right to get a second opinion. Your doctor should not make you feel uncomfortable about it. You can also think about talking to a third party, such as a nurse, patient advocate or psychosocial professional about the problem. These people can also let you know if the treatment centre has a procedure or steps to follow for changing doctors.

**Reference** Canadian Cancer Society

**For more information and support:**

- Contact Prostate Cancer Information Service to talk to an information specialist.
- Contact www.pccnmarkham.ca

http://www.prostatecancer.ca/Prostate-Cancer/Treatment/Working-with-your-Healthcare-Team/Getting-a-Second-Opinion?utm_source=twitter&utm_medium=social_organic&utm_campaign=mission

## The Importance of Identifying Anxiety and Depression in Men With Prostate Cancer

ANDREW CHESLER, MSW, LMSW | February 09, 2019

It is normal for a person receiving a cancer diagnosis to experience a wide range of emotions. Fear, anxiety, sadness, and depression are among the most prevalent. The type of cancer, stage, and treatment modality may all affect a patient's emotional state. It seems logical to conclude that patients with prostate cancer—generally regarded as highly treatable and the most common type of cancer among men—suffer a relatively lower rate of psychosocial distress compared with people receiving diagnoses that typically have poorer prognoses and outcomes. However, men with prostate cancer commonly feel significant anxiety and depression.

# PCCN Markham

Newsletter

**Volume 20 Issue 7** **March, 2019**

Cancer*Care* and Us TOO International surveyed 633 patients with prostate cancer regarding their feelings of anxiety and depression. Seventy-seven percent of the respondents said they had experienced symptoms of anxiety or depression following diagnosis, 94% thought it was normal for patients with prostate cancer to feel anxiety and depression, and 97% felt there was a need to help patients recognize these symptoms and find treatment for them.

Men tend not to seek help for psychosocial issues and notably less often than women do. This is borne out by survey results that suggest men with prostate cancer would benefit from support groups; however, they seldom attend them, and other data show that women outnumber men 3:1 in cancer support groups.

There are myriad reasons for this. Power, physical strength, dominance, control, and toughness are the typical qualities that define the role of a man in society. For men, neediness and asking for help are considered signs of weakness. Men do not like to appear emotionally vulnerable; instead, they often expect that feeling emotions should fall to a spouse, partner, or relative. Stereotypically, men are expected to be logical and make decisions based on the analysis of information. When they do reach out to their doctors and nurses, it is often for support of the informational, not emotional, variety.

Because prostate cancer affects the reproductive, urinary, and gastrointestinal systems, embarrassment and shame are often attached to this diagnosis. Already feeling shamed by being seen as a patient (and therefore in a weakened state), adverse events such as incontinence and erectile dysfunction may exacerbate anxiety over what a man's future level of functioning in these areas might be. All of these factors may lead a patient to hide his feelings even more deeply from medical staff and to refrain from divulging his feelings to his family and loved ones.

It is important for clinicians to create an environment where men feel comfortable sharing their concerns. One way to do this is to tell men with prostate cancer that it is normal to feel a certain amount of anxiety and sadness and that these feelings can be mitigated by psychosocial support such as counseling and support groups. Also, study data show that patients who receive strong emotional support may benefit from a protective effect on health outcomes.2 These patients are more likely to follow their treatment plans, whereas patients who are depressed might be inclined to feel treatment is useless or give up on it.

An important first step to helping a male patient with prostate cancer cope with emotional issues is to help him identify his feelings: Determine whether he is experiencing anxiety, depression, or both, and note that anxiety and depression are not the same and may require different interventions and treatments. A certain amount of anxiety occurs in daily life for most people. This "situational anxiety" occurs frequently for patients with cancer before having a medical test like a scan or a treatment like radiation. This is different from

pervasive anxiety that interferes with daily functioning and may include symptoms such as gastrointestinal distress, chest pains, elevated heart rate and blood pressure, or suddenly breaking into a sweat.

Depression is a medical disorder characterized by feelings of sadness and a loss of interest in activities once enjoyed, and it may be characterized by hopelessness, despondency, abnormal sleep or eating habits, loss of interest in sex, feelings of worthlessness, the desire to harm oneself, or suicidal thoughts.

Men with prostate cancer may already feel diminished in the eyes of others and, subsequently, may reject the interventions that can help mitigate anxiety and depression. Support groups, individual counseling, or a prescription for anti-anxiety or antidepressant medications may be highly useful, but these solutions are sometimes seen by men as further signs of weakness. Nevertheless, all of these options should be made known to patients with prostate cancer. It can be helpful to reassure men with this diagnosis that their innate distaste for these interventions is normal and to make clear that these interventions are often helpful and may lead to better quality of life and improved medical outcomes.

---

*Andrew Chesler, MSW, LMSW Andrew Chesler, MSW, LMSW, is Men's Cancers Program coordinator at CancerCare.*
https://www.oncnursingnews.com/publications/oncology-nurse/2019/january-february-2019/the-importance-of-identifying-anxiety-and-depression-in-men-with-prostate-cancer

## Scientists identify gene responsible for spread of prostate cancer

by Rutgers University January 17, 2019

When Antonina Mitrofanova learned she couldn't become an oncologist, she changed majors to computer science. Now, a pioneer in the emerging field of biomedical informatics she is fighting cancer with big data. Credit: Nick Romanenko

A Rutgers study has found that a specific gene in cancerous prostate tumors indicates when patients are at high-risk for the cancer to spread, suggesting that targeting this gene can help patients live longer.

The study, which was published in the journal *Nature Communications*, identified the NSD2 gene through a computer algorithm developed to determine which cancer genes that spread in a mouse model were most relevant to humans. The researchers were able to turn off the gene in the mice tumor cells, which significantly decreased the cancer's spread.

"Currently, when a patient is diagnosed with prostate cancer, physicians can determine how advanced a tumor is but not whether the patients' cancer will spread," said lead author Antonina Mitrofanova, an assistant professor at Rutgers School of Health Professions and a research member of Rutgers Cancer Institute of New Jersey. "If we can determine whether a patient's cancer is likely to spread at the time of diagnosis, we can start them on a targeted treatment plan as soon as possible to decrease the likelihood of their cancer spreading."

Mitrofanova and collaborators are researching a potential drug to target NSD2, but she encourages doctors to begin incorporating NSD2 screening so they can start high-risk patients on anti-metastatic treatment as soon as possible.

While the algorithm used in the study focused on prostate cancer, Mitrofanova said it can be applied more broadly to study other cancers to better understand what findings can be translated to people.

According to the American Cancer Society, prostate cancer is the second most common cancer in American men and the second leading cause of cancer deaths.

https://medicalxpress.com/news/2019-01-scientists-gene-responsible-prostate-cancer.html

## Norwegian researchers find new treatment for prostate cancer

January 24, 2019 - 14:00 Article from University of Oslo
By: Bjarne Røsjø

**A new treatment that strongly inhibits the development of prostate cancer has been found by an international research group led by the University of Oslo. The treatment can also enhance the effect of medicines already used against prostate cancer in the clinic today.**

Professor Fahri Saatcioglu is already planning clinical trials on humans. (Photo: Bjarne Røsjø)

Professor Fahri Saatcioglu at UiO's Department of Biosciences (IBV) heads a research group investigating how androgens – male sex hormones – affect the risk of being affected by prostate cancer.

The researchers have been working extensively in the study of what is called intracellular signaling pathways in prostate cancer cells, and this basic research has now given promising results.

The scientific article that represents the results was published on January 24 in the highly regarded journal Nature Communications.

"We think that what we found is really exciting. We have shown that a new small molecule drug called MKC8866 has very good effect on the growth of prostate cancer cells both in cell culture and in animal experiments, and we are already planning clinical trials with humans. We expect these trials to be carried out in Scandinavia and Western Europe", says Saatcioglu.

Prostate cancer is the most common form of cancer in men in Western countries. There are approximately 1,1 million new cases around the world per year, and approx. 310,000 die from prostate cancer, according to numbers from GLOBOCAN.

There was over four times the incidence of prostate cancer in 2017 as in the 1950s, but at the same time, the treatments have been improving, so many more live longer, and die with, rather than of, prostate cancer.

Nevertheless, more effective treatments are urgently needed.

### Stops a chain reaction

The drug MKC8866 is a small molecule belonging to a group of substances called hydroxy-aryl-aldehydes. It has been developed by the originally US-based biotech company MannKind Corporation, which has screened a total of about 200,000 chemical substances to find MKC8866.

Professor Saatcioglus's research group has documented that MKC8866 counteracts the growth of prostate cancer tumors and shown that it interferes with a kind of chain reaction – a signaling pathway – that is associated with the cells' stress response.

"All cells in the body can experience different forms of stress from time to time, and the cancer cells are under extra stress because they have to grow fast while having trouble getting enough oxygen and nutrients. Therefore, the cancer cells "hijack" the normal cells' stress response mechanisms and use these for their own benefit to survive. We have found a way to block this "hijacking" and thus the cancer cells can no longer cope. So they die", says Saatcioglu.

The intracellular signaling pathway that is central to the new discovery is linked to the endoplasmic reticulum of the cells. This is a small cell organ, an organelle, which consists of a network of small membranes inside the cells. Many of the cell's biochemical processes take place in these membranes.

Professor Saatcioglu and an international group of research partners demonstrated in 2015 both one signal path that is activated and another that is inhibited in prostate cancer cells, thus they began to study the activated signal path - with the term IRE1.

### Facts

Prostate cancer is the most common and deadly cancer of men in the Western world, after lung cancer. About 30 percent of men in their 50's have precursors to prostate cancer. Only a small percentage develops into dangerous cancer that needs to be treated.

It has not previously been known that this signal path has a function in the development of prostate cancer, but the IBV researchers soon found that it is particularly important for the activation of an oncoprotein - a protein that was earlier found to have an important role in prostate cancer - termed c-MYC.

"Now we have used MKC8866, which was developed for other purposes, and shown that it inhibits the signal pathway and oncoprotein activation. Thus, it also inhibits the growth of prostate cancer tumors both in vitro - cell culture - and in vivo - in mouse prostate cancer models", Saatcioglu says.

### From basic research to the clinic

"This progress is a result of basic and translational research that has been going on for about ten years," says Saatcioglu. Translation research is a type of medical research that aims to translate knowledge from basic research into practical application in patient treatment.

"There is a lot of effort by many people internationally over many years that is behind these findings. I would like to take this opportunity to thank all the students, employees and partners who have participated in various parts of this and the organizations that have supported us financially. If we succeed in the clinical

trials, and I think we have good chances, we can have a new medicine developed in about five or six years", he adds.

Professor Saatcioglu says that there are several reasons why the incidence of prostate cancer in Norway and other western countries has increased sharply since the 1950s.

One of the important reasons is that we live longer, and prostate cancer is primarily a disease that affects older men. Almost half of all new cases occur among men over the age of 74, according to the **Norwegian Cancer Registry.**

But the Western lifestyle and diet are also of great importance, says Saatcioglu.

"For example, the risk of developing prostate cancer is 20-30 times higher among Americans than among Japanese people. But for the Japanese who move to the United States, it takes only one generation before they have developed as much risk as the "native" Americans, Saatcioglu says".

*The research project was supported by the Norwegian Cancer Society and the South-Eastern Norway Health Authority.*

http://sciencenordic.com/norwegian-researchers-find-new-treatment-prostate-cancer

## Blocking fatty acids slows prostate cancer progression

Published Saturday 9 February 2019

By Ana Sandoiu Fact checked by Isabel Godfrey

New research featuring in the journal *Science Translational Medicine* shows that fatty acids fuel prostate tumor growth. As blocking fatty acids seems to slow disease progression, fatty acid uptake may be a promising new therapeutic target for prostate cancer.

*It may soon be possible to stop prostate cancer from becoming aggressive by blocking fatty acids.*

Renea Taylor, the deputy director of the Cancer Program at the Monash Biomedicine Discovery Institute in Clayton, Australia, and Prof. Matthew Watt, the head of the Physiology Department at the University of Melbourne, also in Australia, led the new research.

As Taylor, Prof. Watt, and their colleagues mention in their paper, even though prostate cancer grows slowly, preventing it from reaching an aggressive stage remains difficult.

The researchers wondered what it is that causes prostate tumors to become so aggressive. They wanted to determine what fuels the tumors and how prostate cancer metabolism differs from that of other cancers.

Taylor explains what pointed the researchers in the direction of fatty acids. "There is a strong link between obesity, diet, and poor outcomes in men who develop prostate cancer," she says.

"In particular, those men who consume more saturated fatty acids seem to have more aggressive cancer."

So, the scientists set out to examine more closely the role of fatty acids in prostate tumor growth.

# PCCN Markham

Prostate Cancer Canada Network

## Newsletter

**Volume 20 Issue 7** **March, 2019**

**Blocking fatty acid transport slows cancer** To do so, they took human tissue samples from people with prostate cancer and grafted them onto mice. They found that the uptake of fatty acids was higher in human prostate cancer and that these fatty acids fueled the tumor's biomass.

The researchers also noted that a fatty acid transporter called CD36 mediated these metabolic changes. Moreover, CD36 correlated with aggressive forms of prostate cancer.

Next, the researchers deleted the gene responsible for creating this transporter and examined the effects in the rodents with prostate cancer. Eliminating the gene decreased the signaling lipids that led to tumor formation and slowed down the progression of the cancer.

Furthermore, "CD36 antibody therapy reduced cancer severity in patient-derived xenografts," report the researchers, who go on to note that their results point to a new therapeutic target.

**"These findings identify a critical role for CD36-mediated fatty acid uptake in prostate cancer and suggest that targeting fatty acid uptake might be an effective strategy for treating prostate cancer," the authors write.**

Prof. Watt comments on the findings, saying, "We've known for many years that dysfunctional fatty acid metabolism is linked to many chronic diseases."

"Applying this knowledge to cancer and providing the evidence to develop a therapy to treat a disease that impacts so many men is deeply satisfying," he adds.

"Our whole concept is about giving more appropriate treatment earlier to stop men getting to the late or advanced stage. Our studies showed that blocking fatty acid transport is one way to do this."

Renea Taylor

According to the American Cancer Society, doctors will diagnose almost 175,000 people in the United States with prostate cancer in 2019, and more than 30,000 people will die as a result of this disease.

After lung cancer, prostate cancer is the "second leading cause of cancer death" in U.S. men.

https://www.medicalnewstoday.com/articles/324398.php

## Metastatic Prostate Cancer Responds to Novel Radiation Therapy

Jody A. Charnow February 14, 2019 SAN FRANCISCO —

By targeting prostate-specific membrane antigen, a molecule radiolabeled with lutetium-177 is expected to deliver high doses of beta radiation to distant metastases.

# PCCN Markham

Newsletter

**Volume 20 Issue 7** **March, 2019**

**The following article features coverage from the 2019 Genitourinary Cancers Symposium. Click here to read more of *Cancer Therapy Advisor*'s conference coverage.**

Treatment with a novel targeted radiation therapy improves survival of men with metastatic castration-resistant prostate cancer (mCRPC), according to the findings of a study presented at the 2019 Genitourinary Cancers Symposium.[1]

The therapy consists of a small molecule that has a high affinity for prostate-specific membrane antigen (PSMA) that is radiolabeled with lutetium-177. The therapy, called lutetium-177 PSMA-617 (LuPSMA), purportedly delivers high doses of beta radiation to cancer metastases.

In a phase 2 trial that included 50 men with mCRPC who progressed despite treatment with standard therapies, the median overall survival times was 13.3 months (95% confidence interval [CI], 10.5–18.0), which is longer than the average 9-month survival time for men with this stage of disease, according to investigators. Survival time was significantly longer among patients who had a PSA decrease of 50% or more compared with those who had a smaller PSA decrease (18.0 vs 8.7 months). Median PSA progression-free survival was 6.9 months (95% CI, 6.0–8.7).

A 50% or greater decline in PSA was achieved in 32 of 50 patients (64%; 95% CI, 50%–77%), including 22 patients (44%; 95% CI, 30%–59%) who experienced a PSA decline of 80% or more. The most common toxicities attributed to treatment were transient G1-2 dry mouth in 68% of patients, G1-2 nausea in 48%, and G1-2 fatigue in 36%. G3-4 toxicities attributed to the treatment were infrequent, with thrombocytopenia in 10% of patients, and anemia in 10%.

"In this trial, we treated men who would have otherwise been directed to palliative care," lead investigator Michael Hofman, MBBS, of the Peter MacCallum Cancer Centre in Melbourne, Australia, said in a statement prepared by the conference organizers.[2]

The study participants received prior docetaxel (84%), cabazitaxel (48%), and abiraterone acetate and/or enzalutamide (90%). The median PSA doubling time was 2.6 months.

The investigators previously reported favorable activity and toxicity with LuPSMA in a study of 30 patients with mCRPC.

"The results of this 50-patient study provide further confidence to our previously published 30-patient study, demonstrating high response rates and low toxicity in men with metastatic castration-resistant prostate cancer who have progressed after conventional therapies," Dr Hofman said in a presscast held in advance of the conference, which is sponsored by the American Society of Clinical Oncology (ASCO), Society of Urologic Oncology (SUO), and the American Society for Radiation Oncology (ASTRO).

"As a clinician, I will tell you that this is a very intriguing agent," commented Robert Dreicer, MD, MS, an expert spokesperson from the American Society of Clinical Oncology (ASCO), who moderated the presscast.

Two randomized controlled trials of LuPSMA are under way: the ANZUP/Prostate Cancer Foundation of Australia TheraP trial (177Lu-PSMA-617 vs cabazitaxel) (ClinicalTrials.gov Identifier: NCT03392428) and the

Endocyte VISION trial (177Lu-PSMA-617 vs best standard of care) (ClinicalTrials.org Identifier: NCT03511664).

Read more of *Cancer Therapy Advisor*'s coverage of the 2019 Genitourinary Cancers Symposium by visiting the conference page.

**References**

1. Hofman M, Violet JA, Hicks RJ, et al. Results of a 50 patient single-centre phase II prospective trial of lutetium-177 PSMA-617 theranostics in metastatic castrate-resistant prostate cancer. Data presented at: the 2019 Genitourinary Cancers Symposium; San Francisco, CA; February 14-16, 2019. Abstract 228.
2. American Society of Clinical Oncology (ASCO). Phase II trial shows novel, radiolabeled PSMA-targeted treatment provides high response rates in men with metastatic prostate cancer [press release]. Published February 11, 2019. Accessed February 11, 2019.

## Metastatic Prostate Cancer: Final Analysis of Adding Abiraterone Acetate (ZYTIGA® ) and Prednisone to Androgen Deprivation Therapy

Posted on February 22, 2019 **MedicalResearch.com Interview with:**
**Kim Nguyen Chi, MD FRCPC** Professor of Medicine, University of British Columbia
Regional Medical Director, BC Cancer – Vancouver

***MedicalResearch.com:*** ***What is the background for this study? What are the main findings?***

***Response:*** For over 70 years, androgen deprivation therapy (ADT) has been the main treatment therapy for metastatic prostate cancer patients. This Phase 3 final analysis study looked at adding abiraterone acetate and prednisone to ADT for patients with metastatic prostate cancer, with the primary objectives being to assess improvements in overall survival and radiographic progression-free survival. At the first interim analysis reported in 2017, both primary endpoints were met, and the study was unblinded and patients on the ADT and placebos arm crossed over to receive ADT with abiraterone and prednisone.

This study is the final analysis reporting on overall survival. The study findings found abiraterone acetate and prednisone plus ADT continued to demonstrate an improvement in overall survival, hazard ratio (HR) = 0.66, meaning a 34% decrease in the risk of death associated with the use of ADT with abiraterone and prednisone. The median overall survival, which had not been reached before in the ADT with abiraterone and prednisone arm, was 53.3 months compared to 36.5 months for ADT plus placebo, prolonging median overall survival by 16.8 months.

***MedicalResearch.com:*** ***What should readers take away from your report?***

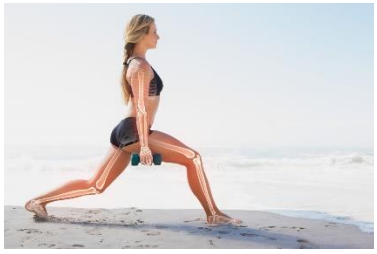
***Response:*** In addition to meeting the primary endpoints, the study also met secondary endpoints that were in favor of the abiraterone acetate and prednisone plus ADT therapy tied to pain progression, time to skeletal-related events, time to chemotherapy initiation and time to subsequent prostate cancer therapy. In terms of subsequent prostate cancer therapy, approximately 60 percent of patients receiving ADT plus placebo received life-extending subsequent therapy. It is also important to note that time to second disease progression (PFS2), which is defined as the time from randomization to progression on subsequent therapy,

was also significantly in favor of abiraterone acetate and prednisone plus ADT. This implies that patients getting subsequent therapy don't actually ever catch up to the patients receiving abiraterone acetate upfront.
***MedicalResearch.com: What recommendations do you have for future research as a result of this work?***
***Response:*** There are other studies that are looking at adding other treatments to ADT. Recently a press release was issued on the Phase 3 TITAN study with apalutamide plus ADT, which showed overall survival and radiographic progression-free survival. Additionally, studies are evaluating the benefit of abiraterone acetate and docetaxel. We're looking forward to the study results from ongoing studies.
https://medicalresearch.com/cancer- -oncology/prostate-cancer/metastatic-prostate-cancer-final-analysis-of-adding-abiraterone-acetate-zytiga-and-prednisone-to-androgen-deprivation-therapy/47597/

## Are Dairy-Free Diets A Risk To Bone Health?

### The Duchess of Cornwall recently unveiled the rebranded Royal Osteoporosis Society. Highlighting bone health is positive - bbut there is still a lot of confusion around its connection with diet

Dr. Shireen Kassam Feb 22, 2019 12:24 PM



Do you need to consume dairy for healthy bones? The evidence says no

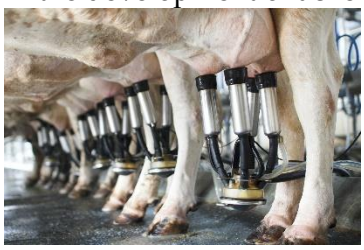
I applaud the Duchess of Cornwall for highlighting the issue of osteoporosis, which can be a debilitating condition.
However, to cite dairy-free diets as harmful to bone health is just ignorant and not based on scientific data. A healthy diet and lifestyle is fundamental to preventing osteoporosis. Important nutrients for bone health include calcium, potassium, magnesium, vitamin K and vitamin D, which can all be obtained on a health plant-based/vegan diet.
The dairy industry has very successfully propagated the myth that dairy consumption is essential for optimal calcium intake, yet lactose intolerance (the inability to break down the sugar in milk) is common, affecting 50-95 percent of people in many non-Caucasian populations (Bayless, Brown, & Paige, 2017).
Consumption of dairy has not been shown to improve bone health or prevent osteoporosis and bone fractures (Bischoff-Ferrari et al., 2011; Bolland et al., 2015). In fact some studies find that milk consumption is associated with a higher fracture rate (Michaëlsson et al., 2014). Consumption of milk in adolescence does not appear to prevent fractures in later life (Feskanich, Bischoff-Ferrari, Frazier, & Willett, 2014).
**Detrimental health effects**

PCCN Markham
Newsletter
Volume 20 Issue 7 March, 2019

The consumption of dairy has actually been more consistently linked with detrimental effects on health. Dairy, including milk and cheese, is one of the top sources of saturated fat in the typical Western diet. Diets high in saturated fat increase the risk of heart disease, stroke and dementia (Ludwig, Willett, Volek, & Neuhouser, 2018).

**The consumption of dairy products has been associated with an increased risk of prostate cancer in men (Aune et al., 2015)** and an increased risk of lung, breast and ovarian cancer (Ji, Sundquist, & Sundquist, 2015). There are a number of reasons why dairy may promote cancer, including the main milk protein, casein, which in the laboratory has been shown to promote cancer growth (Youngman & Campbell, 1991).

Dairy consumption elevates oestrogen levels in the blood, which promotes female cancers (Michels, Binder, Courant, Franke, & Osterhues, 2019). Dairy, along with other sources of animal protein, elevates blood levels of the hormone IGF-1, which is a risk factor for cancer (Ma et al., 2001; Qin, He, & Xu, 2009). Vegans have a lower levels of IGF-1 when compared to omnivores (Allen, Appleby, Davey, & Key, 2002) and an overall lower rate of cancer (Dinu, Abbate, Gensini, Casini, & Sofi, 2017). Milk consumption has also been implicated in the development of acne in adolescence (Juhl et al., 2018).



Dairy consumption has been linked with some detrimental health effects (Photo: Adobe. Do not use without permission)

**Calcium intake**

The optimal daily intake of calcium is also a matter of debate. 500mg per day is probably adequate for bone health with 700mg per day for adults recommended in the UK (Willett et al., 2019). A healthy plant-based diet can provide adequate amounts of calcium as summarised here by the vegan society. In fact, the recently published Eat-Lancet Commission on Food, Planet Health accepts that dairy is not required in the diet (Willett et al., 2019) and the 2019 Health Canada dietary guidelines to not include dairy as an essential component of the diet (Health Canada, 2019).

For optimal bone health, everyone should make sure they are getting enough vitamin D, which in the winter months when sun exposure is limited, may be best obtained through supplements as recommended by Public Health England. Vitamin K is also essential for bone health and can be obtained from leafy green vegetables. Take care with protein consumption, as contrary to popular belief, more is not always better and high protein diets, especially when protein is from animal sources, have been associated with worse bone health and

higher fracture rates (Feskanich, Willett, Stampfer, & Colditz, 1996; Sellmeyer, Stone, Sebastian, & Cummings, 2001).

Other lifestyle-related factors important for bone health include regular, weight-bearing physical activity, avoiding tobacco smoking and minimising alcohol consumption (Zhu & Prince, 2015).

In conclusion, medical evidence does not support the need for dairy in the diet and its continued promotion by those in authority should be openly challenged and underlying motives questioned.

**Resources**

Allen, N. E., Appleby, P. N., Davey, G. K., & Key, T. J. (2002). Hormones and diet: low insulin-like growth factor-I but normal bioavailable androgens in vegan men. *British Journal of Cancer*. https://doi.org/10.1054/bjoc.2000.1152

Aune, D., Navarro Rosenblatt, D. A., Chan, D. S. M., Vieira, A. R., Vieira, R., Greenwood, D. C., … Norat, T. (2015). Dairy products, calcium, and prostate cancer risk: A systematic review and meta-analysis of cohort studies. *American Journal of Clinical Nutrition*. https://doi.org/10.3945/ajcn.113.067157

Bayless, T. M., Brown, E., & Paige, D. M. (2017). Lactase Non-persistence and Lactose Intolerance. *Current Gastroenterology Reports*. https://doi.org/10.1007/s11894-017-0558-9

Bischoff-Ferrari, H. A., Dawson-Hughes, B., Baron, J. A., Kanis, J. A., Orav, E. J., Staehelin, H. B., … Willett, W. C. (2011). Milk intake and risk of hip fracture in men and women: A meta-analysis of prospective cohort studies. *Journal of Bone and Mineral Research*. https://doi.org/10.1002/jbmr.279

Bolland, M. J., Leung, W., Tai, V., Bastin, S., Gamble, G. D., Grey, A., & Reid, I. R. (2015). Calcium intake and risk of fracture: Systematic review. *BMJ (Online)*. https://doi.org/10.1136/bmj.h4580

Dinu, M., Abbate, R., Gensini, G. F., Casini, A., & Sofi, F. (2017). Vegetarian, vegan diets and multiple health outcomes: A systematic review with meta-analysis of observational studies. *Critical Reviews in Food Science and Nutrition*. https://doi.org/10.1080/10408398.2016.1138447

Feskanich, D., Bischoff-Ferrari, H. A., Frazier, A. L., & Willett, W. C. (2014). Milk consumption during teenage years and risk of hip fractures in older adults. *JAMA Pediatrics*. https://doi.org/10.1001/jamapediatrics.2013.3821

Feskanich, D., Willett, W. C., Stampfer, M. J., & Colditz, G. A. (1996). Protein consumption and bone fractures in women. *American Journal of Epidemiology*. https://doi.org/10.1093/oxfordjournals.aje.a008767

Health Canada. (2019). Canada's Dietary Guidelines. Retrieved from https://food-guide.canada.ca/static/assets/pdf/CDG-EN-2018.pdf

Ji, J., Sundquist, J., & Sundquist, K. (2015). Lactose intolerance and risk of lung, breast and ovarian cancers: Aetiological clues from a population-based study in Sweden. *British Journal of Cancer*. https://doi.org/10.1038/bjc.2014.544

Juhl, C. R., Bergholdt, H. K. M., Miller, I. M., Jemec, G. B. E., Kanters, J. K., & Ellervik, C. (2018). Dairy intake and acne vulgaris: A systematic review and meta-analysis of 78,529 children, adolescents, and young adults. *Nutrients*. https://doi.org/10.3390/nu10081049

Ludwig, D. S., Willett, W. C., Volek, J. S., & Neuhouser, M. L. (2018). Dietary fat: From foe to friend? *Science*. https://doi.org/10.1126/science.aau2096

Ma, J., Giovannucci, E., Pollak, M., Chan, J. M., Gaziano, J. M., Willett, W., & Stampfer, M. J. (2001). Milk intake, circulating levels of insulin-like growth factor-I, and risk of colorectal cancer in men. *Journal of the National Cancer Institute*. https://doi.org/10.1093/jnci/93.17.1330

Michaëlsson, K., Wolk, A., Langenskiöld, S., Basu, S., Lemming, E. W., Melhus, H., & Byberg, L. (2014). Milk intake and risk of mortality and fractures in women and men: Cohort studies. *BMJ (Online)*. https://doi.org/10.1136/bmj.g6015

Michels, K., Binder, N., Courant, F., Franke, A., & Osterhues, A. (2019). Urinary excretion of sex steroid hormone metabilutes are consumption of cow milk: a randomized corssover intervention trial. *The American Journal of Clinical Nutrition*, *109*(2), 402–410.

Qin, L. Q., He, K., & Xu, J. Y. (2009). Milk consumption and circulating insulin-like growth factor-I level: A systematic literature review. *International Journal of Food Sciences and Nutrition*. https://doi.org/10.1080/09637480903150114

Sellmeyer, D. E., Stone, K. L., Sebastian, A., & Cummings, S. R. (2001). A high ratio of dietary animal to vegetable protein increases the rate of bone loss and the risk of fracture in postmenopausal women. *American Journal of Clinical Nutrition*.

Willett, W., Rockström, J., Loken, B., Springmann, M., Lang, T., Vermeulen, S., … Murray, C. (2019). Food in the Anthropocene: the EAT–Lancet Commission on healthy diets from sustainable food systems. *Lancet*, *6736*, 3–49. https://doi.org/10.1016/S0140-6736(18)31788-4

Youngman, L. D., & Campbell, T. C. (1991). High protein intake promotes the growth of hepatic preneoplastic foci in Fischer #344 rats: Evidence that early remodeled foci retain the potential for future growth. *Journal of Nutrition*. https://doi.org/10.1093/jn/121.9.1454

Zhu, K., & Prince, R. (2015). Lifestyle and osteoporosis. *Current Osteoporosis Reports*, *13*(1), 52–59.

https://www.plantbasednews.org/post/are-dairy-free-diets-risk-bone-health

# PCCN Markham

Newsletter

**Volume 20 Issue 7** **March, 2019**


## NOTABLE

### Thirty percent fewer prostate cancer deaths with PSA screening

Public Release: 22-Jan-2019 University of Gothenburg

**IMAGE:** Maria Franlund, M.D., Ph.D., in Urology at Sahlgrenska Academy, University of Gothenburg. Credit: Photo by Andreas Broqvist

PSA-screening cuts deaths from prostate cancer by some 30%. This is shown by research based on data on 20,000 men monitored for more than two decades. The men's initially measured PSA level proved highly significant as a predictor of future cancer risk.

"This research is important because it shows the long-term effects of an organized screening program in Sweden," says Maria Franlund, MD, PhD in Urology at Sahlgrenska Academy, University of Gothenburg, Sweden, and Head of Department at Sahlgrenska University Hospital.

Franlund's thesis on prostate cancer screening comes after the latest (2018) recommendation from the Swedish National Board of Health and Welfare: that health services should not offer screening with PSA testing alone. The reason is that the Board regards the drawbacks of PSA screening -- overdiagnosis and overtreatment -- as outweighing its benefits.

The main purpose of this research has been to enhance understanding of the implications of screening, and of the possible design of a future screening program for prostate cancer.

Franlund's thesis work originates from a large, population-based study that started in Gothenburg in 1995. The study is unique in many ways, and currently has the longest follow-up period of all screening studies on prostate cancer worldwide.

Initially, the Randomized Population-Based Prostate Cancer Screening Trial comprised a total of 20,000 men aged 50-64. Ten thousand were randomly selected for a screening group and offered PSA testing (screening) every two years and cell sampling if elevated PSA levels were found. The other 10,000 were assigned to the control group and not offered PSA sampling in the study.

After 22 years' follow-up, approximately 300 men had died of prostate cancer. The risk was some 30 percent lower for men who had undergone screening in the program. Men at the highest risk of dying from prostate cancer were those whose screening started after age 60; men who were diagnosed after leaving the study (aged about 70 and over); and those who were invited, but did not participate at all.

# PCCN Markham

Newsletter

**Volume 20 Issue 7** **March, 2019**


Further, the study included outcomes for men who participated in the screening program and left the trial without prostate cancer being detected. Among these men, who were monitored for nine years after their screening ended, some 200 cancer cases altogether were found. Of these men, 21 later died from the disease. PSA levels on the first screening occasion proved to have a major bearing on future cancer outcomes. They may therefore be used for risk estimation. The results also showed that in men with voiding dysfunction -- difficulty in emptying the bladder -- the risk of prostate cancer was lower than in symptom-free men in the study.

To further reduce prostate cancer mortality, in Franlund's view, the ages at which men join and leave a possible future screening program need to be optimized. Strategies are also required to reduce the dropout rate. Men in good health and with PSA above a certain level (1.5 ng/ml) should be offered continued checkups after age 70 as well.

https://www.eurekalert.org/pub_releases/2019-01/uog-tpf012219.php

## QUOTABLE

"Spring is when you feel like whistling, even with a shoe full of slush." — Doug Larson

"Life is what we make it, always has been, always will be." – Grandma Moses

"Don't wait. The time will never be just right." – Napoleon Hill

# PCCN Markham

## Newsletter

**Volume 20 Issue 7** **March, 2019**

***PCCN Markham***

***Prostate Cancer Support Group***

**Meets the 2nd Tuesday**
**Every month**
**September – June**
**St. Andrew's Presbyterian Church**
**143 Main St Markham**

**The Markham PCCN Prostate Support Group is generously supported by Dr. John DiCostanzo, Astellas Pharma, St. Andrews Presbyterian Church, PCCN, and the Canadian Cancer Society.**

The group is open to all; survivors, wives, partners, relatives and those in our community who are interested in knowing about prostate health. Drop by St Andrews Presbyterian Church 143 Main Street Markham at 7:30PM, the 2nd Tuesday every month from September to June. The information and opinions expressed in this publication are not endorsements or recommendations for any medical treatment, product, service or course of action by PCCN Markham its officers, advisors or editors of this newsletter.

**Treatment should not be done in the place of standard, accepted treatment without the knowledge of the treating physician.**

The majority of information in this newsletter was taken from various web sites with minimum editing. We have recognized the web sites and authors where possible.

**PCCN Markham does not recommend treatment, modalities, medications or physicians. All information is, however, freely shared.**

Email *markhampccn@gmail.com*

***We look forward to your feedback and thoughts. Please email suggestions to markhampccn@gmail.com***

***Website www.pccnmarkham.ca***
***Twitter https://twitter.com/pccnmarkham***