East Lancashire Prostate Cancer Support Group Newsletter





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Vitamin D can reverse low-grade prostate cancer

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Thank You for the Donation Letter Taking vitamin D supplements could slow or even reverse the progression of less aggressive, or low-grade, prostate tumours without the need for surgery or

radiation, new research has found. "We do not know yet whether vitamin D treats or prevents prostate cancer," said **Bruce Hollis** from the Medical University of South Carolina. "At the minimum, what it

may do is

keep lower-grade prostate cancers from going ballistic," Hollis noted. The findings were presented at the 249th National Meeting amp; Exposition of the American Chemical Society (ACS), the world's largest scientific society, in Denver, US.

In cases of low-grade prostate cancer, many

urologists do not treat the disease, but instead do what's called "active surveillance," Hollis explained.

As a man must wait 60 days from the time of his

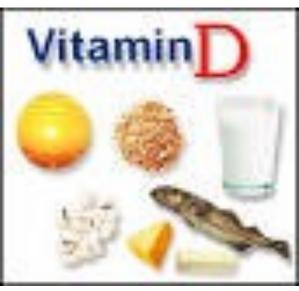
undergoing elective prostatectomies either to a group that received 4,000 unit of vitamin D per day, or to a placebo group that did not receive vitamin D.

The men's prostate glands were removed and examined 60 days later. Preliminary results from this study indicated that many of the men who received vitamin D showed improvements in their prostate tumours, whereas the tumours in the placebo group either stayed the same or got worse. Also, vitamin D caused dramatic

changes in the expression levels of many cell lipids and proteins, particularly those involved in inflammation.

"Cancer is associated with inflammation, especially in the prostate gland," Hollis noted.

"Vitamin D is really fighting this inflammation within the gland," Hollis added.



biopsy before he can un-

that inflammation from

the biopsy can subside.

Hollis wondered if giving

these men vitamin D sup-

plements during the 60-

day waiting period would

affect their prostate can-

In a new randomised,

controlled clinical trial,

his team assigned 37 men

dergo a prostatectomy, so



Predicting Prostate Cancer

Nanotechnology shows promise for more accurate prostate cancer screening and prognosis

A Northwestern Universityled study in the emerging field of nanocytology could one day help men make better decisions about whether or not to undergo aggressive prostate cancer treatments.

Technology developed by Northwestern University researchers may help solve that quandary by allowing physicians to identify which nascent cancers are likely to escalate into potentially lifethreatening malignancies and which ones will remain "indolent," or non-aggressive.

The prostate-specific antigen (PSA) test was once the recommended screening tool for detecting prostate cancer, but there is now disagreement over the use of this test because it can't predict which men with elevated PSA levels will actually develop an aggressive form of the disease.

"If we can predict a prognosis with our technology, then men will know if their cancer is dangerous and if they should seek treatment," said Vadim Backman, senior author of the study. "Right now there is no perfect tool to predict a prognosis for prostate cancer. Our research is preliminary, but it is promising and proves that the concept works."

Backman is a professor of biomedical engineering at Northwestern's McCormick School of Engineering and Applied Science.

The study, which includes researchers from Northwestern, NorthShore University HealthSystem (NorthShore) and Boston Medical Center, was published <u>online in</u> PLOS ONE.

Backman has been studying cell abnormalities at the nanoscale in many different types of cancers, using an optical technique he pioneered called partial wave spectroscopic (PWS) microscopy. PWS can detect cell features as small as 20 nanometers, uncovering differences in cells that otherwise appear normal using standard microscopy techniques.

His previous studies have shown promise that PWS can assess the risk of lung, colon and pancreatic cancers in humans. This sort of prescreening can lead to earlier, life-saving interventions. This is the first study to use PWS to predict a cancer prognosis, the likely course of the disease.

Prostate cancer is the second-leading cause of cancer deaths in American men, but doctors also say it is often overdiagnosed and overtreated. By age 80, more than 50 percent of men will develop prostate cancer but not all will have the aggressive, deadly form of the disease.

However, because their prognosis is unknown, many opt for aggressive treatments that have side effects that cause urinary, bowel and erectile dysfunctions and more.

"The goal is to find specific biomarkers of aggressive cancers," said Charles Brendler, MD, Co-Director of the John and Carol Walter Center for Urological Health & Program for Personalized Cancer Care at NorthShore and author of the study. "These biomarkers will allow us to individualize our treatment recommendations and improve patient outcomes."

To be able to give a patient a prognosis, not just identification of risk of tumors, would be a major advancement, said Dr. Hemant K. Roy professor of medicine and Chief of gastroenterology at Boston Medical Center and an author of the study.

"This approach may allow tailoring of clinical decisions regarding management of patients with prostate cancer, thus maximizing the benefit and minimizing the harms of therapy," Roy said.

In this study, researchers analyzed prostate tissue biopsies from two cohorts of prostate cancer patients. The first cohort included eight men with non-progressing cancer and 10 with progressing cancer. The PWS operator was blinded to the clinical status of the patients.

The second cohort was comprised of 10 progressors and 10 non-progressors in which the PWS investigators were blinded to the entire group.

There was a profound increase in nano-architectural disorder in the progressors as compared to the non-progressors. This assessment may represent a powerful biomarker to predict cancer progression for men with early-stage prostate cancer.

"This study has high quality data because it was done in a blinded fashion," Backman said. "Given that even in the unblinded dataset the investigator responsible for data acquisition was unaware of the clinical status, there is no possibility of bias."

More studies are planned to further this research. Backman also hopes to use similar techniques to predict cancer progression in ovarian, breast and esophageal cancers.

The study was supported by the National Institutes of Health (grant numbers: U01CA111257, R01CA156186, R01CA165309, R01CA128641, R01CA155284, and R42CA168055) and the John and Carol Walter Center for Urological Health.

The study authors are Hemant K. Roy of Boston Medical Center; Charles B. Brendler, Karen L. Kaul, Brian T. Helfand, Chi-Hsiung Wang, Margo Quinn, Jacqueline Petkewicz and Michael Paterakos, of NorthShore University HealthSystem; and Hariharan Subramanian,

Di Zhang, Charles Maneval, John Chandler, Leah Bowen and Vadim Backman, of Northwestern University.



Vadim Backman

McCormick

Northwestern Engineering

Prostate Cancer Support (North West) 1:00 pm - 11th April 2015 at Christie Hospital





Mansion House Chambers, 22 High Street, Stockport SK1 1EG Registered Charity No. 1092102 Tel 0161 474 8222 Helpline – 0845 601 0766 www.prostatecancersupport.org

<u>Dr Stephanie McArdle, lead researcher based in Nottingham Trent</u> University's John van Geest Cancer Research Centre

Prostate Cancer Vaccines

Unfortunately for most cancers, the specific targets against which vaccination strategies can be based are sometimes weak and relatively poor at inducing robust, protective anti-tumour immune responses.

Developing cancer vaccines that can overcome the capacity of tumours to 'evade' the immune system and induce protective anti-tumour immunity is therefore essential for the development of new immunotherapy's for aggressive disease.

Scientists have discovered a new protein which inhibits prostate tumour growth even in advanced stages. The efficacy of the protein lies in triggering the body's immune response to prostate cancer. The breakthrough paves the way for the development of new and improved vaccines for late stages of prostate cancer.

The new protein, prostatic acid phosphatase 114 (PAP 114), is an epitope of PAP protein which is seen to be present in over 90% of prostate tumours. Researchers at Nottingham Trent University discovered that injecting the PAP 114 protein in the surrounding area of cancerous cells stimulates the body's immune system and "switches off" tumour growth.

Dr. McArdle believes that the study will lead to the development of vaccine which will generate a more specific, more efficient, faster and longer-lasting protective immune response against prostate cancer.

The new vaccine will be cheaper to produce, and with fewer potential side-effects and could be administered to patients in comparatively simple formulations.

Although the vaccine has only been tested on mice, researchers are positive about starting clinical trials soon.

Prostate tumours are known to "evade" the immune system, but the new vaccine is designed to induce protective anti-tumour immunity and attack the cancerous cells through the immune system.

Dr. McArdle will summarise their results regarding a vaccine that they are working on and which could be used to treat advanced prostate cancer and the importance of treating each patient individually even though the vaccine will be the same, to maximise the chance of each patient to respond to the vaccine.

All Prostate Cancer Patients and their partners/ carers are invited to attend this event in the Education Centre Auditorium in the Christie Hospital Manchester.

The event is free and tea/coffee will be served. We hope to see you on the 11th April 2015.

Free tickets to the event will be available from your local support group or our Stockport office.

Our Chairman will also update the meeting on G.P. education and awareness raising activities.



Presentation at The Christie Hospital Saturday 11 April 2015

We would like to thank PC-UK for sponsoring this meeting

The meeting will take place in the Auditorium from 1.30 to 4 pm. The Hospital is on Wilmslow Road, Withington, Manchester M20 4BX and can be entered via Oak Road.

The presentation is by Dr Stephanie McArdle of Van Geest University, Nottingham who will be talking about research into prostate cancer treatments and diagnosis. A flyer about Dr McArdle and her research work is attached.

There will also be a presentation by PCS NW (probably in conjunction with PC-UK) of the work we are doing to raise awareness of prostate cancer with GPs here in the northwest.

Coffee and tea will be available, in the concourse, from 1 pm. A raffle will be drawn to cover the cost of refreshments.

To help us with the arrangements, please return the tear-off slip, before 27 March, to
Prostate Cancer Support, Mansion House Chambers, 22 High Street, Stockport SK1 1EG
Tel. 0161 474 8222 or email darrell@prostatecancersupport.org
I / We would like to attend the meeting of Prostate Cancer Support at the Christie Hospital
on Saturday 11 April 2015.
Name(s)
Address
Post Code

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Contact Information

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From Left to Right Hazel Goulding (Treasurer) Leon D Wright (IT Admin) Stuart Marshall (Secretary) Steve Laird (Vice Chairman) Dave Riley (Chairman)

We are a group of local people who know about prostate cancer. We are a friendly organisation dedicated to offering support to men who have had or who are experiencing the effects of this potentially life threatening disease.

The East Lanc's Prostate Cancer Support Group offers a place for free exchange of information and help for local men and their supporters (family and friends) who may be affected by this increasingly common form of male cancer.

At each meeting we strive to be a happy, supportive and upbeat group of people; encouraging open discussion on what can be a very difficult and perhaps for some an embarrassing subject. We have lively, informative, interactive, sharing and above all supportive meetings.

The Latest Innovation in Pub Design, "The Wallnut Pub" Solves the Old Prostate Problem. "Cheers" In & Out













EAST LANCS PROSTATE CANCER SUPPORT GROUP

www.elpcsg.com

11/03/15

To: Mr. & Mrs. Bradshaw / Joanne,

I would like to thank you sincerely for your kind donation to our Support Group, it was a pleasure meeting you and I can assure you that the £163 you gave to us will help us to help other men who are suffering the consequences of this often 'nasty disease'.

Donations like this help us greatly as we are a self - funded organisation which is run by Volunteers. Men and their wives or partners come to our meetings for support and to find out more information about Prostate Cancer care and treatments. The most important thing they gain is being able to speak with other people who know how they are feeling, or have been on a similar 'journey'.

Our meetings are held on the **first Thursday every month** at Burnley General Hospital, Mackenzie Centre, 2 – 4pm and anyone who comes along is made welcome.

You will see from the enclosed documents that I have forwarded on the cheques to the two Prostate Cancer charities that you collected for, namely Prostate Cancer UK & Prostate Cancer Research, I am sure you will be hearing from them in due course.

Once again, thank you very much for your kindness and support.

Yours sincerely, Stuart Marshall

Secretary