East Lancashire Prostate Cancer Support Group Newsletter





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Are COVID-19 vaccines safe for men with prostate cancer?



There are currently three coronavirus vaccines that have been approved for use in the UK - the Pfizer/BioNTech vaccine, the Oxford-AstraZeneca vaccine, and the Moderna vaccine. Clinical studies involving tens of thousands of people have shown that all three vaccines are safe for the overwhelming majority of people. A small number of people with a history of serious allergies

have had a severe

'anaphylaxis', imme-

diately after receiv-

reaction, called

ing the Pfizer/

BioNTech or the Moderna COVID-19 vaccines. Anaphylaxis can be a rare side effect of any vaccine, and all health professionals who give vaccines have been trained to treat it. However, because of this risk, these vaccines may not be suitable for people with a history of anaphylaxis caused by a food or medicine allergy. If you've had a severe allergic reaction in the past, it's very important to discuss this with your GP before having a COVID-19 vaccine.

Does the Oxford-AstraZeneca vac-

cine cause blood clots?

Recent research suggests a possible link between the Oxford AstraZeneca COVID-19 vaccine and extremely rare blood clots. But these blood clots can happen naturally, so more research is needed before we know whether the AstraZeneca COVID-19 vaccine causes them. If you've already had your first dose of the Oxford AstraZeneca COVID-19 vaccine, and didn't experience these rare blood clots. scientists believe it's safe for you to have your second dose.

If you haven't had your first dose and you're at higher risk of blood clots (because of a health condition or medication), as a precaution your doctor may recommend the Pfizer/BioNTech vaccine or the Moderna vaccine instead. Anyone who experienced these rare blood clots after their first dose will be offered a different vaccine for their second dose.

As with any vaccine or treatment, speak to your doctor, pharmacist or nurse if you get any unusual side effects after having a COVID-19 vaccine.

Are the COVID-19 vaccines safe for men having chemotherapy?

The Pfizer/BioNTech vaccine and the Moderna vaccine do not contain a live virus, so you can't catch COVID-19 from these vaccines and they are safe for men having treatment for prostate cancer, including **chemotherapy**.

The Oxford-AstraZeneca vaccine is made by changing a virus that causes the common cold in chimpanzees, but that is harmless in humans. The virus has been changed so that it can't multiply inside people. This means it can't cause illness and is safe for people having treatments that weaken the immune system, such as chemotherapy.

However, you should still talk to your medical team about whether to have the vaccine if you're having chemotherapy.

What is the third COVID-19 vaccine dose?

The Joint Committee on Vaccination and Immunisation (JCVI) has recommended that everyone in the UK over the age of 12 with a severely weakened immune system (immunosuppressed) have a third vaccine dose to help protect them from the COVID-19 virus.

Some research has suggested that these severely immunosuppressed individuals may not build up a strong immune response to the COVID-19 vaccination. This means they may be less protected than the rest of the population.

Will I be offered the third dose?

The third dose is advised to anyone over the age of 12 who, at the time of their first or second vaccine dose, were severely immunosuppressed. This includes people with prostate cancer who had a vaccine dose within six months of their immunosuppressive chemotherapy or radiotherapy treatment. Chemotherapy and radiotherapy can weaken your immune system, this means you may not have built up a strong immune response to the first and second vaccinations.

External beam radiotherapy to the prostate shouldn't affect your immune system. If you've had radiotherapy to treat cancer inside your prostate, speak to your GP or consultant about whether you are eligible for the primary third dose.

Some men with <u>advanced prostate cancer</u> have radiotherapy to relieve bone pain in parts of the body where the cancer has spread. Depending on the bone treated and the dose of radiotherapy, this may have weakened your immune system. If you've had radiotherapy to treat advanced prostate cancer you may be offered the primary third dose.

The third dose will not be offered to all people who are **clinically extremely vulnerable**.

Those who are eligible for the third dose will receive a letter from their GP. If you don't receive a letter from the GP and you think you may be eligible, speak to your GP or hospital medical team.

When will I get the third dose?

The third dose will be given at least 8 weeks after your second dose. This may vary if you're currently having immunosuppressive treatment for your prostate cancer, for example **chemotherapy** or **radiotherapy**.

Your third dose may be delayed until at least two weeks after you finish treatment. If this is not possible, your doctor may decide to give your third dose vaccination during a planned period of time between treatments (treatment holiday). Your medical team will talk to you about this and decide the best time for you.

What vaccine will I get?

People aged 18 and over will be offered either the Pfizer or Moderna vaccine. The AstraZeneca vaccine may be given to those who previously had this vaccine, or if your doctor thinks it is suitable for you.

If you are unsure which vaccine you'll be given, speak to your GP or consultant.

What is the difference between the third dose and a booster dose?

The third dose is only being given to people who are less likely to have had a strong immune re-

sponse to the first and second dose. The third dose is being offered as a primary COVID-19 vaccination. The first two vaccinations are also part of the primary vaccinations.

A booster jab is likely to be offered to everyone in the new year. This is because the evidence suggests people's immune response to the primary vaccinations may reduce over time and need a top up.

If you have the third primary dose, you will also be offered the booster dose.

If you have questions about your own situation, speak to your doctor or nurse, or contact our **Specialist Nurses.** You can read the more about the third primary dose vaccination on the **UK's Government Website**.

Will the vaccine stop me getting coronavirus?

Most people who receive two doses of any of the COVID-19 vaccines approved for use in the UK will be protected against severe illness from coronavirus. But you may not be protected until at least seven days after your second injection. And we don't yet know how long the vaccines work for.

As with any vaccine, there is still a small risk of catching the virus afterwards – but the symptoms should be less severe.

Will it work if I'm having chemotherapy?

We don't yet know how well the vaccines work in people with a weak immune system, including men having **chemotherapy to treat prostate cancer**. This is because the vaccines have only been tested in a small number of people having chemotherapy or other medicines that weaken the immune system.

A recent study suggests the Pfizer/BioNTech vaccine may not give people with cancer as much protection against coronavirus as it does in healthy people. This includes people with cancer who aren't having chemotherapy.

But it's important to remember that this was just one study, involving a small number of people. We need more research before we can know for certain how well the vaccine works in people with cancer. Even if the vaccine doesn't give full protection in some people, it may still be better than not having it at all.

Speak to your doctor before having the COVID-19 vaccine and remind them that you're having chemotherapy. They can help you decide whether to have the vaccine. If you do have the vaccine, your doctor will probably arrange for you to have each dose at a particular point in your chemotherapy treatment cycle. Your immune system is likely to be strongest immediately before you start a new treatment cycle.

Should I have the COVID-19 vaccine?

This is a personal decision, and only you can decide whether to have the vaccine. But it is the best way to protect yourself against severe COVID-19 illness.

There is a lot of information on the internet about vaccines and it's hard to know which information to trust. You should be able to find the most up-to-date information about COVID-19 vaccines on **the NHS website**.

It may help to talk to your family or friends if you're not sure what to do. Your doctor or nurse can also talk to you about the vaccine and help you decide what's right for you.

When can I have the vaccine?

The vaccine is being offered to people based on their risk from coronavirus. Over time, more and more people will be invited to have the vaccine.

You can read more about the priority groups, who is currently eligible for the vaccine, and how to book an appointment for the vaccine on the relevant NHS website

for **England**, **Scotland** or **Wales**, or the HSC website for **Northern Ireland**.

I've already had a flu jab – do I still need the COVID-19 vaccine?

The flu jab doesn't protect against coronavirus. To protect yourself against the flu and coronavirus, you need to have both the flu vaccine and the new COVID-19 vaccine.

You won't be able to have the flu and COVID-19 vaccines at the same appointment – you'll need

to leave at least a week in-between, to ensure they both work properly.

Do I still need to be careful after my COVID-19 vaccine?

Yes. You should continue to follow **government guidance**, even after you've had the vaccine. There are a couple of reasons for this. Firstly, we don't know for certain how well the vaccines work in people with a weak immune system (for example, men having **chemotherapy to treat prostate cancer**). Although thousands of people received the vaccines in clinical trials, researchers have only tested the vaccines in a small number of people receiving cancer treatments. We also don't fully understand whether the vaccines stop people carrying and passing on the virus. So until we know more from research, it's important to continue following government guidance, even after you've had the vaccine.

Find out more about the latest guidance for men with prostate cancer.

Talk to someone who's been there

Request One-to-one support

https://prostatecanceruk.org/get-support/one-to-one-support/request-one-to-one-support/



The important thing to remember when you're affected by prostate disease is that you're not alone. There are lots of people out there who are on very similar journeys, and who have had the treatments and experiences you may be facing.

So, if you have prostate cancer, other prostate diseases, or if you're the partner, family or friend of someone affected, we can help you talk to someone who's been there.

Our One-to-one support service offers anyone affected by prostate cancer or prostate disease the opportunity to talk with a trained support volunteer over the telephone. Our volunteers will listen to your issues and concerns, and share their own personal experience to support you. In our most recent evaluation of the service (2018-19), 100% of respondents said they would recommend it to another person in a similar situation.

Who is it for?

One-to-one support is open to anyone affected by prostate cancer or prostate disease, whether you're a diagnosed man facing a difficult decision or family member or friend looking for support. Support for men with prostate cancer or prostate disease

Our volunteers can offer support to men by sharing their experience of:

- Open surgery
- Keyhole surgery
- Robotic surgery
- Brachytherapy (permanent seed)
- Brachytherapy (high dose rate)
- Radiotherapy
- Radiotherapy as a second or salvage treatment
- High intensity focused ultrasound (HIFU)
- Hormone therapy
- Prostatitis
- Impact of prostate cancer on relationships and your sex life

• Treatment side effects

Getting back to work

Support for partners, friends and family

We also have volunteers who are partners of men diagnosed with prostate cancer. They can offer support in areas such as:

- Supporting a man with advanced disease
- The impact of prostate cancer on your relationships and sex life
- Losing someone to prostate cancer

Request One to one support

I greatly benefitted from speaking to the volunteers. It was helpful to hear their personal experience as it was directly related to my situation. I feel better informed about what to expect, because they have actually been through the treatments themselves and know what its like.

My husband initially shut me out; it was his way of coping. Talking to another wife was enormously helpful and a real support for me.

Confidentiality

If you would like to speak to one of our trained volunteers, our Specialist Nurses will ask for a few details from you to pass onto the volunteer, such as your name, age, telephone number and availability. We will also collect some brief medical information for the purposes of matching you with an appropriate volunteer. These details will be stored on our confidential database, managed separately from other data provided to the charity.

The details of your discussion(s) with our volunteers will remain confidential between you and the volunteer, except for basic information such as the date and length of the call fed back for monitoring purposes. Volunteers may in exceptional circumstances disclose information about a call to Prostate Cancer UK - for example, in line with our charity adult safeguarding policy if it is felt a service user is at significant risk.

Our general clinical services confidentiality policy also applies to the One-to-one support service



NEW PROSTATE CANCER URINE TEST SHOWS HOW AGGRESSIVE DISEASE IS AND COULD REDUCE INVASIVE BIOPSIES

Published by **Communications**On 27th Apr 2021

Researchers from the University of East Anglia have developed a new urine test for prostate cancer which also shows how aggressive the disease is.

A new study published today shows how an experimental new test called 'ExoGrail' has the potential to revolutionise how patients with suspected prostate cancer are risk-assessed prior to an invasive biopsy.

The research team say their new test could reduce the number of unnecessary prostate cancer biopsies by 35 per cent.

Prostate cancer is the most common cancer in men in the UK. It usually develops slowly and the majority of cancers will not require treatment in a man's lifetime.

The most commonly used tests for prostate cancer include blood tests, a physical examination known as a digital rectal examination (DRE), an MRI scan or an invasive biopsy.

However, doctors struggle to predict which tumours will become aggressive, making it hard to decide on treatment for many men.

Lead researcher Dr Dan Brewer, from UEA's Norwich Medical School and also a visiting worker at the Earlham Institute, said: "While prostate cancer is responsible for a large proportion of all male cancer deaths, it is more commonly a disease men die with rather than from.

"Therefore, there is a desperate need for improvements in diagnosing and predicting outcomes for prostate cancer patients to minimise over-diagnosis and overtreatment whilst appropriately treating men with aggressive disease, especially if this can be done without taking an invasive biopsy.

"Invasive biopsies come at considerable economic, psychological and societal cost to patients and healthcare systems alike."

The research team developed the new ExoGrail urine test by combining two biomarker sources - measurements of a protein-marker called EN2 and the levels of gene expression of 10 genes related to prostate cancer risk. It builds on previously developed tests called PUR and ExoMeth.

They tested it using urine samples from 207 patients who had been undergone a biopsy for prostate cancer at the Norfolk and Norwich University Hospital (NNUH).

When the urine results were compared to biopsy results, the study showed that the test had successfully shown which patients had prostate cancer and which did not.

The ExoGrail test also provided risk scores for patients and highlighted those for which an invasive biopsy would have been beneficial.

The findings show that using information from multiple, non-invasive biomarker sources has the potential to greatly improve how patients with suspected prostate cancer are risk-assessed prior to an invasive biopsy.

Dr Brewer said: "Our new urine test not only shows whether a patient has prostate cancer, but it importantly shows how aggressive the disease is. This allows patients and doctors to select the correct treatment. And it has the potential to reduce the number of unnecessary biopsies by 35 per cent."

The research team was led by Dr Shea Connell, Prof Colin Cooper, Dr Daniel Brewer and Dr Jeremy Clark, all from UEA's Norwich Medical School, in collaboration with the Norfolk and Norwich University Hospital, the University of Surrey, the University of Bradford, The Earlham Institute, and The Movember GAP1 Urine Biomarker Consortium.

The urine biomarker research was funded by the Movember GAP1 Urine Biomarker project, Prostate Cancer UK, The Masonic Charitable Foundation, The Bob Champion Cancer Trust, the King family, The Andy Ripley Memorial Fund, the Hargrave Foundation, Norfolk Freemasons and the Tesco Centenary Grant.

Paul Villanti, executive director of programmes at Movember, said: "We are proud to have supported the development of the ExoGrail urine test as part of our Global Action Plan Urine Biomarker project.

"Having non-invasive tests which can accurately show how aggressive a man's prostate cancer is not only reduces the number of men having to undergo painful biopsies, but also ensures that the right course of treatment for the patient is selected more quickly."

'Integration of Urinary EN2 Protein & Cell-Free RNA Data in the Development of a Multivariable Risk Model for the Detection of Prostate Cancer Prior to Biopsy' is published in the journal *Cancers* on Tuesday, April 27, 2021.

PFAS exposure, high-fat diet drive prostate cells' metabolism into procancer state

NOV 11, 2021 10:00 AMBY SHARITA FORREST | EDUCATION EDITOR | 217-244-1072HEALTHLIFE SCIENCES UNIVERSITY OF ILLINOIS

A new study in mice suggests that consuming a high-fat diet in combination with exposure to PFAS triggers changes in benign and malignant prostate cells that promote rapid tumor growth. Food science and human nutrition professor Zeynep Madak-Erdogan, center, led the study. Coauthors include comparative biosciences professor Michael J. Spinella, left, and bioengineering professor Joseph Irudayaraj.

CHAMPAIGN, III. — Exposure to PFAS – a class of synthetic chemicals utilized in food wrappers, nonstick cookware and other products – reprograms the metabolism of benign and malignant human prostate cells to a more energy efficient state that enables the cells to proliferate at three times the rate of nonexposed cells, a new study in mice found.

However, consuming a high-fat diet significantly accelerated development of tumors in the PFAS-exposed mice, said the scientists at the University of Illinois Urbana-Champaign and the U. of I. Chicago who conducted the research. PFAS is an abbreviation for perfluoroalkyl and polyfluoroalkyl substances, often described as "forever chemicals" because they don't degrade naturally and persist as environmental pollutants. Studies have associated PFAS with harmful effects in laboratory animals.

"Our data suggest that exposure to PFAS synergizes with dietary fat to activate the protein-coding gene PPARa, altering cells' metabolism in ways that escalate the carcinogenic risk in normal prostate cells while driving tumor progression in malignant cells," said food science and human nutrition professor Zeynep Madak-Erdogan, the principal investigator on the project.

"These alterations in cell metabolism that occur downstream of PPARa activation may underpin the increased prostate cancer risk observed in men who are exposed to PFAS," said Madak-Erdogan, who also holds an appointment as a health innovation professor with the Carle Illinois College of Medicine.

In their analyses of gene transcription activity, the scientists found that PPARa was expressed at significantly greater levels in the tumor cells of the PFAS-

exposed mice that ate the high-fat diet. PPARa controls cell proliferation and differentiation, aids in immune and inflammatory responses and has been found to play a key role in the development of liver and kidney cancers, according to the study.

Previous studies, including some conducted in humans, linked PFAS with a range of serious health problems such as prostate cancer, the most common male cancer in the U.S.

Published in the journal Nutrients, the current study's findings are believed to be the first to shed light on the synergistic interactions of PFAS and dietary fat and the metabolic changes that shift benign prostate cells to a malignant state, triggering rapidly growing tumors.

The scientists injected an aggressive form of malignant human prostate cells into the flanks of male mice that were fed either a high-fat diet intended to mimic the typical Western diet or a control diet. Some of the mice also received oral doses of perfluorooctane sulfonate (PFOS), one of the most common forms of PFAS that has been associated with various cancers.

"We observed an increase in the tumors' volume when exposed to either the high-fat diet or the PFOS," said co-author Michael J. Spinella, a scientist in the Cancer Center at Illinois and professor of comparative biosciences. "However, at 40 days post-injection, we observed that the fastest tumor growth occurred in the group of mice that both ate the high-fat diet and received PFOS exposure, which suggested a synergistic interaction between the two."

In cell culture, the scientists exposed benign prostate cells and a derivative line of aggressive malignant cells to PFOS and found that the malignant cells replicated at triple the rate of the cells in the control group.

When the researchers exposed the benign and malignant cells to another form of PFAS, perfluorobutane sulfonic acid, the malignant cells' viability was five times greater than the cells in the control group.

Studies have associated PFBS exposure – which can occur through polluted air or polluted drinking water – with diseases of the thyroid and other organs.

The scientists hypothesized that metabolic energy pathways within the cells were undergoing changes to facilitate the rapid growth observed.

"We analyzed the metabolites that changed in response to PFOS treatment, and we found that the metabolic phenotype of the prostate cancer cells was

altered, upregulating the proliferative energy pathways," said co-author Joseph Irudayaraj, the associate director for shared resources at the Cancer Center at Illinois and a founder professor of bioengineering at the U. of I.

"Exposure to PFOS significantly upregulated genes associated with metabolism, particularly the molecule pyruvate, which is involved in glucose metabolism, and the precursor molecule acetyl-coenzyme A that facilitates the metabolism of fatty acids and steroids," he said.

Prior research, including a 2019 study led by Madak-Erdogan, found that changes in the metabolism of pyruvate and fatty acids were associated with various forms of cancer and other diseases. In that study, published in the journal Cancer Research, Madak-Erdogan's team found that free fatty acids caused estrogen-receptor positive breast cancer cells to increase cell proliferation and tumor growth.

Structurally, chemicals in the PFAS family resemble free fatty acids and bind to the same sites on serum proteins, Madak-Erdogan said.

Co-authors of the new study include former nutritional sciences graduate student and first author Ozan Berk Imir; University of Illinois Chicago urology professor Wen-Yang Hu; UIC andrology lab director and urology professor Gail S. Prins; U. of I. Urbana-Champaign comparative biosciences research scientist Ratnakar Singh; graduate student Qianying Zuo; research assistant Yu-Jeh Liu; and undergraduate student Alanna Zoe Kaminsky.

The research was supported by grants from the National Institutes of Food and Agriculture in the U.S. Department of Agriculture, the U. of I. Office of the Vice Chancellor for Research, and an Arnold O. Beckman Award from the Campus Research Board.

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The paper "Per- and polyfluoroalkyl substance exposure combined with high-fat diet supports prostate cancer progression" is available online or from the News Bureau.

DOI: 10.3390/nu13113902



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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.















Tackle AGM on Zoom Invite

December 7th 2021





November 24th 2021

Dear Stuart

Thank you to all of you who have registered for our forthcoming Zoom AGM, to be held on December 7th from 2,00pm - 4,00pm.

If your group hasn't yet registered then please do so by completing the form below. In order for us to update you on what we have been doing these past few months, the AGM will be slightly longer than normal, to incorporate presentations from various Directors and Staff. The draft Agenda can be found <a href="https://example.com/here-presentations-normal-presentat

to register for the AGM, please register by clicking the link below by Monday November 29th.



You will be able to participate via computer, laptop or smartphone. Instructions on how to join and participate in the meeting will be emailed to those who register along with links to the final meeting documents on Tuesday November 30th

We look forward to seeing you all on December 7th. Any questions please contact us at agm@tockleprostate.org

With all best wishes

The Board of Directors, Tackle Prostate Cancer



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This email is being sent to all the member groups of Tackle Prostate Cancer and to you as our main contact for. Please would you distribute it to your committee and members as you think fit.

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