Hormone therapy for prostate cancer may dramatically increase a man’s risk of kidney failure, according to a new study. Use of androgen deprivation therapy was tied to a 250 percent increase in a man’s chances of suffering acute kidney injury, Canadian researchers found in a review of more than 10,000 men receiving treatment for early stage prostate cancer. The study appears in the July 17 issue of the Journal of the American Medical Association.

Androgen deprivation therapy uses medication or surgery to reduce the amount of male hormones in a man’s body, which can then cause prostate cancer cells to shrink or grow more slowly.

Androgen deprivation therapy uses medication or surgery to reduce the amount of male hormones in a man’s body, which can then cause prostate cancer cells to shrink or grow more slowly.

It is a therapy usually reserved for advanced cases of prostate cancer, said study co-author Laurent Azoulay, a pharmacoepidemiologist at Jewish General Hospital’s Lady Davis Institute, in Montreal. Previous research already has linked androgen deprivation therapy to a possible increased risk of heart attack.

These new findings tying hormone therapy to acute kidney injury—a rapid loss of kidney function with a 50 percent mortality rate—should prompt doctors to think twice before using androgen deprivation therapy to treat prostate cancer patients at little risk of dying from the disease, said Azoulay, also an assistant professor in McGill University’s department of oncology.

"There is a big debate over who should receive androgen deprivation therapy, and the timing of use," he said. "In patients whose prostate cancer has spread, the benefits outweigh the risk, but now there’s this jump to using [androgen deprivation therapy] in patients who would not typically die from prostate cancer. In that subgroup of patients, the risks might outweigh the benefit."

Dr. Durado Brooks, director of prostate and colorectal cancers for the American Cancer Society, called the Canadian study "intriguing."

"They did find what would appear to be a fairly strong association between androgen deprivation treatment and acute kidney injury," Brooks said. "This is something that men and their clinicians need to be aware of and watching out for if they choose to go with androgen deprivation therapy as part of their treatment plan for prostate cancer."

However, Brooks also noted that the study relied on past medical data and did not involve current prostate cancer patients compared against a control group.
“These results are suggestive that an association may exist, but they are not definitive,” Brooks said. “There will need to be other research looking at this.”

For the new study, the research team identified 10,250 men who had been diagnosed with nonmetastatic (not spreading) prostate cancer between 1997 and 2008, using patient data maintained by the United Kingdom. Researchers then tracked whether each patient had been hospitalized with acute kidney injury, and whether their kidney failure occurred during or after the hormone treatment.

Prostate cancer patients who received androgen deprivation therapy were 2.5 times more likely to suffer kidney failure, the study found. Their risk of acute kidney injury particularly increased if they received a combined androgen blockade, a therapy that uses different hormone-suppression methods to drastically decrease male and female hormone levels in the body.

Both male and female hormones play a large role in kidney function, Azoulay said, which could explain why androgen deprivation therapy can cause such drastic damage to the organ.

“Testosterone and estrogen have been shown to play an important role in renal [kidney] function,” he said. “It seems that testosterone has vessel-dilating effects, and estrogen has a protective effect against renal injury.”

Fish Oil and Prostate Cancer—the debate continues.

For the past week, the phone has been ringing ceaselessly at the office of Dr. David Samadi, chief of urology at Lenox Hill Hospital, and a top prostate cancer expert. Ever since a new study came out showing a surprising link between long touted omega-3 fatty acids and prostate cancer, emails have been pouring in from patients who want to know if they should be taking these supplements? Should they even be eating fish?

What is the science behind it? Long chain omega-3 fatty acids, found in oily fish like salmon, tuna, mackerel, and halibut, are considered essential for human health, though we don’t make these fatty acids in our own bodies. Omega-3 fatty acids decrease inflammation, and several studies have demonstrated that they are important to the normal function of the brain and the heart. These nutrients appear to help improve mood, improve thinking, provide energy, and strengthen heart function. In fact the American Heart Association recommends eating at least 2 portions of oily fish per week.

But what about cancer? Because omega-3 fatty acids (including DHA and EPA found in fish) decrease inflammation, researchers have long believed that these nutrients would also decrease cancer. In fact, Dr. Alan Kristal, Associate Head of the Cancer Prevention Program at Fred Hutchinson Cancer Research Center in Seattle, expected just that result when he authored two studies, one in 2011 and one just published in the Journal of the National Cancer Institute on the effect of fish oil and prostate cancer. But the studies revealed just the opposite. Indeed, they pointed to an increased risk of advanced prostate cancer of over 70 percent in men who had high levels of long-chain omega-3 fatty acids in their blood.

“It would take 3-4 servings of fish per week to get into the highest exposure category in our study, or a standard omega-3 supplement (probably every other or even every 3rd day would be enough),” Kristal said to us. Why a risk of prostate cancer? The answer is still unknown, and the studies don’t prove that the fish oil causes the cancer, though three studies (including a European trial) have now shown a strong association between the two that is not just a coincidence. Dr. Kristal believes that the reason may have to do with how active metabolically fish oil is, and “prone to oxidation.”

What should men do? Since we often eat fish in the place of red meat or other processed meat in order to keep healthy, it is now difficult to discourage this practice, even in men at risk for prostate cancer.
As far as supplements go, the latest study on prostate cancer and fish oil raises a yellow, if not a red flag. Certainly there is now enough evidence to want to limit the amount of fish oil supplements you take if you are a man at risk of prostate cancer.

According to Dr. Samadi, if you have a suspicious prostate lesion, family history of prostate cancer, or elevated PSA that is being investigated, you should stop taking Omega 3 Fatty Acids until further research proves otherwise. For those patients who have had their prostate removed, they can consume Omega3 FAs at the right dose.

Flaxeed, Chia Seed, Fish Oil, dietary fish all contain Omega 3 Fatty Acids. Dr. Samadi points out that you can end up taking more Omega 3 Fatty Acids than you realize because of the combination of the different foods and supplements you take.

Get tested for the level of your EPA and DHA and always remember “more is not always better.” Samadi says speak to your physician about the risk and benefits of the vitamins and supplements that you may be taking.

More evidence not all prostate cancers need treatment

In a study of older men who had died from causes other than prostate cancer, almost half were found to have prostate tumors.

And up to half of those tumors detected on autopsy would have qualified for treatment had doctors known about them while the men lived, though none had been the cause of death. That suggests the criteria for treatment "might be worth re-examining," according to the study authors, and adds to a growing body of evidence that a wait-and-see approach might be better than treatment for many prostate cancers.

"The study suggests that the progression of early prostate cancer, including some more aggressive forms of the disease, is far from inevitable within a man's lifetime as many such tumors are found in men who died from other causes when their prostate is analyzed on autopsy," said lead author Dr. Alexandre Zlotta, director of Uro-oncology at Mount Sinai Hospital in New York. The study concludes that it is probably worth re-examining our current definitions of clinically unimportant and clinically significant prostate cancer," Zlotta said in an email.

He and his colleagues examined the prostate glands of more than 300 men over 60 who had died from a variety of causes, but not prostate cancer. They autopsied 220 men in Russia and 100 in Japan, both countries where the prostate-specific antigen (PSA) screening test is not as commonly used as in the United States.

Zlotta and his colleagues selected a Caucasian population of Russian men similar in lifestyle and risk factors for prostate cancer to U.S. men in order to look at how common the cancer is in older men who have not been routinely screened.

In the U.S., the number of tumors they found would have been much lower because many would have been identified by screening and treated or removed before death, Zlotta pointed out. For comparison, he said, "we chose an Asian population in Japan because clinically detected prostate cancer and mortality are much lower among Asian men compared with Caucasian men and their lifestyles/diet are dramatically different."

Though many fewer Japanese men are diagnosed with or die from prostate cancer than men in the U.S., the new study found that the disease is present in the same proportion of men, and serious tumors are even more common in Japan, based on posthumous prostate examinations.

Almost 40 percent of the Russian men had tumors of the prostate, compared to 35 percent of the Japanese men, according to the results published in the Journal of the National Cancer Institute.

Save the date: Monday, October 7th for a special PCCN Calgary community meeting. This will replace our scheduled Tuesday October 8th meeting. The meeting will feature a screening of a new documentary on cancer called "The Enemy Within". Vivienne Parry, OBE, the producer of the documentary will be with us from London, England to introduce and discuss her film. Vivienne is a scientist by training and a well known journalist in England and around the world. This special meeting will be open to all health care related groups in Calgary and beyond. Free admission of course.
One in four tumors in the Russian men were deemed serious and would likely have been treated with surgery or radiation in the U.S., compared to one in two tumors in the Japanese men.

But there are still many differences between Russian and American men, so it is difficult to generalize the results, according to Dr. Stacy Loeb, a urologist at NYU Langone Medical Center in New York.

"We should be cautious about trying to apply the results to Americans where we have a very heterogeneous population including very high risk groups such as African Americans," Loeb told Reuters Health.

In the United States, about 239,000 men are expected to be diagnosed with prostate cancer in 2013, but far fewer - less than 30,000 - will die of it, according to the American Cancer Society.

That's still more than will die of the disease in Japan, despite the American men getting more screenings and treatments - a curious inconsistency researchers do not understand and Zlotta called the "million dollar question."

Prostate cancer screening does ultimately reduce the number of painful advanced cancers and deaths from the disease, but it also picks up smaller cancers, and treating those aggressively could lead to unnecessary side effects, Loeb said. The study authors note that the lifetime risk of a man in the U.S. being diagnosed with prostate cancer is 17 percent, but his risk of dying from prostate cancer is 3.4 percent. That suggests many of those cancers would not advance quickly or at all, and something else would kill the man long before the prostate tumor. The problem is how to know which tumors will be harmless.

Experts said a new screening test may be needed that differentiates between more dangerous cancers and the many tumors that will not eventually kill, thereby avoiding the expense and risks of treatment and removal.

"The holy grail is to find only those prostate cancers which are life threatening," she said. "The good news is that this is a very active area of research, and the whole process of screening and assessing continues to improve all the time."

PCCN Calgary sincerely thanks all those individuals and businesses who continue to support our good work:

Our next meeting is Tuesday August 13th at 7:30 PM at Kerby Centre, 1133 7th Ave. SW.

The 2013 stats show that prostate cancer is still the most commonly diagnosed cancer to affect Canadian men. PCCN Calgary encourages men over the age of 40, as part of their annual checkup, to initiate a conversation with their doctor about early detection of prostate cancer.