

Healthline with Yale Cancer Center

Hosts

Edward Chu, MD Chief of Medical Oncology

Kenneth Miller, MD Director of Supportive Care

WTIC Newstalk 1080

Treatment for Advanced Prostate Cancer

Guest Expert:

Kevin Kelly, DO

*Associate Professor of Medical Oncology,
Director, Prostate and Urologic Cancers
Program*

Yale Cancer Center



*Healthline with Yale Cancer Center is a weekly broadcast on WTIC Newstalk 1080
Sunday Mornings at 8:30*

Listen live online at www.wtic.com or

Listen to archived podcasts at www.yalecancercenter.org

This is Healthline. A joint venture of WTIC NewsTalk 1080 and Yale Cancer Center. Yale Cancer Center is a resource for cancer programs throughout Connecticut, developing new advances in prevention, screening, diagnosis, and treatment. On Healthline, you will hear from some of the leading doctors in the country. Healthline is not intended to provide medical advice. Yale Cancer Center urges you to consult with a qualified physician in your community for diagnosis and for answers to your medical questions. And now, our co-hosts, Oncologists, Ken Miller and Ed Chu.

Chu Good morning and welcome to Healthline. My name is Dr. Ed Chu, and I am the Chief Adult Oncologist here at the Yale Cancer Center. My co-host, Dr. Ken Miller, director of our Survivorship Program here at the Yale Cancer Center, is on an assignment today. Healthline, with the Yale Cancer Center, is our way of providing you with the most up-to-date information on cancer care every Sunday morning at 8:30 a.m. Our program features some of the nation's leading oncologists and cancer specialists who are in the forefront of the battle to fight cancer right here in Connecticut. Each week, Ken and I are joined by a different expert from the Yale Cancer Center, and our goal is to give you help and also to give you hope. If you would like to submit a question about cancer to Healthline, please e-mail us at healthline@yale.edu or call 1-888-234-4YCC. We will try to answer your questions on air or in a future broadcast. If you are interested in listening to past editions of Healthline, or if you would like to learn more about a specific type of cancer, all of our shows are now posted in both audio and written formats on the Yale Cancer Center website, www.yalecancercenter.org. Today, we are joined by Dr. Kevin Kelly, Associate Professor of Medical Oncology and Urology at the Yale School of Medicine and Director of the Prostate and Urologic Cancers Program. He is also Director of the Solid Tumor Clinical Investigation Program here at the Yale Cancer Center. Dr. Kelly is a nationally known leading expert in the treatment of prostate cancer. Kevin, thank you for being with us today on Healthline.

Kelly It's a pleasure to be here Ed.

Chu Kevin, let's start by talking about prostate cancer and who specifically is affected by this disease.

Kelly Any male can be diagnosed with prostate cancer and as you get older, your chances of getting prostate cancer increase. However, even younger patients, in their 40's and 50's, can have prostate cancer. By the time men reach 75 or 80, the majority of patients may have prostate cancer.

Chu So it is a myth for people to think that if you are a younger-age individual there is absolutely no risk for developing prostate cancer?

Kelly That is correct. There are patients in their 40's that develop prostate cancer, and typically these patients are African Americans, or have a family history of prostate cancer. These are the patients that you have to be particularly careful about and screen early on for prostate cancer.

Chu What is the role of genetics as a risk factor for males developing prostate cancer?

- Kelly We know family history plays a significant role in prostate cancer, and there is a tremendous amount of work being done looking at different genetic variants that may cause prostate cancer in patients, but we haven't gotten to the point yet where certain genes that cause prostate cancer can be regulated or deregulated to use in screening.
- Chu What if an individual does not have any type of urinary symptom? Is it correct for that individual to believe that because there are no urinary symptoms, there is no risk for developing prostate cancer?
- Kelly Actually, the majority of patients are diagnosed without any symptoms. This could be with an abnormal digital rectal exam, an elevated prostate-specific antigen, which is a blood marker that we use for prostate cancer. However, we are particularly suspicious of patients who present with a large prostate and urinary symptoms.
- Chu There is much that has been discussed about the role of PSA, and obviously, most older males get a PSA blood test, but what exactly is PSA and when should men be concerned about the value or the level of their PSA?
- Kelly PSA is the prostate-specific antigen, which is a protein that is secreted by normal prostate cells and prostate cancer cells. Typically, as you grow older, the PSA increases in your blood, but when you have cancer there is also an increased amount of PSA in the blood. It can be very useful in diagnosing prostate cancer, but there is a lot of controversy about using it as a screening tool for prostate cancer.
- Chu It is important for our listeners to understand that there are benign disorders, not related to cancer, which can also be associated with an increased PSA level.
- Kelly Absolutely. An infection in the prostate, having intercourse, riding a bike or horse, or trauma to the prostate can all elevate the PSA in the blood.
- Chu When would you normally start worrying that an elevated PSA might indicate prostate cancer?
- Kelly Make sure that you go to your urologist or your family doctor and have a physical examination to rule out other causes for an elevated PSA such as infection or trauma to the prostate. If you have continued rise in the PSA, or changes in the PSA, that is a big concern. Another cause for alarm would be any abnormality on a digital rectal exam; this should be further followed up by your urologist.
- Chu Typically, would the first line of defense be the primary care physician and then the urologist, or should a patient go directly to their urologist?

- Kelly I think it is good medical care when the primary doctor is in charge of patients and works closely with the urologist and other health teams to make sure that the diagnosis is made correctly.
- Chu That is very helpful advice for our listeners. How is the diagnosis of prostate cancer typically made?
- Kelly Today, a diagnosis of prostate cancer is made by an abnormal rise of PSA in the blood. This subsequently prompts patients to go to their urologist where they have a prostate biopsy done. During a prostate biopsy, a needle is inserted through the rectum to biopsy the prostate which gives us tissue of the prostate to see if the patient does have prostate cancer.
- Chu Once that initial diagnosis is made, are there other tests that need to be done to more fully stage and evaluate?
- Kelly Typically, if you have a very low-staged cancer, you don't need any further staging. However, if there is a concern that the cancer may have spread outside of the prostate, we do a CAT scan or MRI scan of the prostate-pelvis area. An area where prostate cancer usually spreads is to the bones, so we also do what is called a bone scan.
- Chu What stage is the most common stage at which a patient is diagnosed; the early localized stage?
- Kelly Absolutely. The majority of patients with prostate cancer are diagnosed at a very early stage. That is important because it can be very curable if it is diagnosed in early-stage disease.
- Chu What are the potential cure rates for patients who have early-stage disease?
- Kelly 80% of patients with early disease can be cured of prostate cancer, but the curability is based on multiple factors including PSA, the stage that is diagnosed, and what we see in the pathology.
- Chu For a patient that has early-stage prostate cancer, what is the typical treatment strategy that is taken?
- Kelly There are several approaches for patients with prostate cancer with localized disease. In some patients, just observing the prostate cancer may be appropriate. Other times, it may be surgery or radiotherapy to the prostate.
- Chu At this time, we would like to remind our listeners to e-mail their questions to healthline@yale.edu or call 1-888-234-4YCC. At this time we are going to take a short break for a medical minute. Please stay tuned to learn more information about prostate cancer with our special guest Dr. Kevin Kelly.

Medical Minute

This is a medical minute brought to you as a public service by the Yale Cancer Center. There are over 10 million cancer survivors in the US, and the numbers keep growing. Completing treatment for cancer is a very exciting milestone, but cancer and its treatment can be a life-changing experience. Following treatment, their return to normal activities and relationships may be difficult, and cancer survivors may face other long-term side-effects of cancer including heart problems, osteoporosis, fertility issues, and an increased risk of second cancers. The Connecticut Challenge Survivorship Clinic at the Yale Cancer Center provides a multidisciplinary approach to helping cancer survivors. The team includes a physician, nurse specialist, nutritionist, exercise specialist and a clinical social worker who work together to help care for cancer survivors. Please call 203-785 care for more information or make an appointment at the Connecticut Challenge Survivorship Clinic.

- Chu Welcome back to Healthline. I am Ed Chu, and I am here with our very special guest Dr. Kevin Kelly, a leading expert in the treatment of prostate cancer here at the Yale Cancer Center. Before the break we were talking about some of the different treatment options for early-stage prostate cancer. Let's take a step back. Many view prostate cancer as the equivalent of breast cancers for females and just the mention of prostate cancer engenders a great deal of stress and emotions. I think a lot of male patients who hear that diagnosis feel that they have to rush to begin treatments. What are your suggestions for anyone who is given the diagnosis of prostate cancer?
- Kelly In most cases, the prostate cancer has been there for a while, so rushing into a treatment without looking at all the options is not usually necessary. My advice is to take a step back, make sure you get the appropriate diagnosis and all the information you can about your cancer, and then discuss the appropriate options for treating your prostate cancer. It is appropriate to see a urologist who is an expert in prostate cancer and it is also important to get the opinion of a radiation oncologist who specializes in giving radiation to the prostate. In addition, a medical oncologist who deals with prostate cancer can be very helpful in making a decision. The most difficult thing that I see with patients is that they really struggle with the side-effects of therapy. The two major side-effects that we see with therapy are impotency, or inability to have an erection, and incontinence of urine. This varies between procedures, whether they receive radiation or surgery, and how the operations are done. These are issues that need to be discussed at length with the patient because these are long term effects that the patient will have to live with for years to come.
- Chu What are the potential advantages or disadvantages of surgery, which is obviously to remove the prostate tumor, as opposed to giving radiation treatments?
- Kelly The data right now shows that the curability both with surgery and radiotherapy are equivalent; it boils down to more of a personal preference for a patient. Sometimes surgery may have disadvantages over radiotherapy in certain patients who have difficulties with urination or other

medical problems where surgery would not be appropriate. It is a very personal decision and the risks and benefits of each procedure needs to be discussed with the patient, and also other medical problems the patient may have.

Chu Do other medical issues and/or age factor into the decision making process?

Kelly Absolutely. In patients who are older, or more mature as I call them, we have to consider whether or not the cancer is going to be life threatening and if further treatment is needed. There are some tumors that are very indolent; they grow very slowly so you may not need to intervene. However, when you are dealing with younger patients, they are going to have longer survivals and not as much comorbidity, so you do need to intervene at that time.

Chu We've heard a lot lately about the role of hormonal therapy; either before or after surgery or radiation therapy has been done. What are your thoughts on the role of hormonal therapy?

Kelly What we know about hormonal therapy is that the male hormone, testosterone, plays a significant role in the growth of prostate cancer. If we take away testosterone we know that it stops the growth of the tumor cells. In patients with more advanced prostate cancer, using hormonal therapy with radiotherapy during radiotherapy, or during and after radiation therapy, improves the survival in some patients. So it does play an important role.

Chu There is an approach called IMRT that is being talked about a lot these days. What does that mean?

Kelly It is intensity modulated radiotherapy. This is a very high precision radiotherapy to the prostate where they are able to give very high doses of radiotherapy very succinctly to the prostate. This allows a higher dose of radiotherapy to be given and decreases the toxicities of the radiation therapy, particularly rectal complications and urinary complications.

Chu Has that become a more popular approach than the traditional external beam radiation therapy?

Kelly It is all external beam radiotherapy, but this is a specific technique. It is the standard technique in the United States currently.

Chu You, and folks in your GU team here at the Yale Cancer Center, have taken on a multidisciplinary approach for patients with all forms of prostate cancer.

Kelly That is correct Ed. We have a multidisciplinary approach where we discuss the patients at tumor boards and go over difficult cases. This is particularly helpful because as time goes on we will be integrating more systemic therapies with the local therapies, such as chemotherapy or hormonal

therapy, early in the treatment. There are several investigational studies going on now to test this hypothesis to see if it can actually improve the outcome in patients with poor risk prostate cancer.

Chu Kevin, once the patient has had either surgery or radiation therapy for their early-stage prostate cancer, what is the typical follow-up after their treatments have been finished?

Kelly Typically these patients are seen anywhere from every 3 to 6 months to a year for a rectal exam and a prostate-specific antigen blood test.

Chu There is so much interest in nutritional supplements and herbal medicines for all kinds of different cancers as a way of trying to prevent cancer from either occurring or coming back. Do herbal or nutritional supplements play any role in preventing prostate cancer from either occurring or from coming back once a patient already has been treated for prostate cancer?

Kelly There are trials that are looking at different vitamins, such as selenium, to see if we can actually prevent prostate cancer. There is a very large trial sponsored by the NCI that has been completed and we are waiting for the final results, which will help answer some of these questions. But, in general, you need to be careful about herbal medicines received over the counter. There is no proven benefit and they can actually mask the prostate cancer. You should be cautious and discuss with your physician all the medications taken; including herbal supplements.

Chu On previous shows, Professor Cheng, who is one of my close colleagues, and myself, have talked about the role of Chinese herbal medicines. It is very important for you to speak with your physicians if you are thinking about taking any type of nutritional supplements or herbals, because it is clear that a lot of these medicines may not be completely devoid of impurities or contaminants, which could lead to potential side-effects. We would like to remind our listeners to e-mail questions to healthline@yale.edu or call 1-888-234-4YCC. We are going to take a short break to listen to our survivor story. Please stay tuned to learn more about prostate cancer with Dr. Kevin Kelly.

Survivor Story

A few years ago, the diagnosis of cancer was a death sentence for many patients, but today, thanks to advances in clinical research, we are turning the corner in the battle against cancer. There are over 10 million cancer survivors now living in the US. They are the true heroes in the war against cancer. Here is the story of a hero from Hamden.

Ten years ago, when I was diagnosed with aplastic anemia, there was no cure. After teaching Math for 35 years, I was forced to retire. Dr. Tom Duffy at the Yale Cancer Center told me about the new procedure called a mini stem cell transplant. He encouraged me to put my life in the hands of Dr. Stuart Seropian, one of the few doctors in the country doing this procedure. On January 17, 2004, I had a stem cell transplant at the Yale Cancer Center. At age 70, I feel like a

new man. I owe a great debt of gratitude to my anonymous stem cell donor and to the terrific staff at the Yale Cancer Center. They literally saved my life.

This survivor's story has been brought to you by Yale Cancer Center.

- Chu Welcome back to Healthline. This is Dr. Ed Chu, and I am here in our studios with Dr. Kevin Kelly who is a leading expert in the treatment of prostate cancer and other GU cancers. Kevin is Director of the Prostate and Urologic Cancers Program here at the Yale Cancer Center. Kevin, in your role as head of the Prostate and Urologic Cancers Program here at the Yale Cancer Center, perhaps you could update our listeners as to what is going on here at the Cancer Center and what is new in terms of the latest advances.
- Kelly There is a lot going on here right now. From surgery, Dr. John Colberg is working with da Vinci Robotic Surgery and has become an expert in this area. In radiation therapy, Dr. Richard Peschel is continuing to perfect the IMRT radiotherapy, and is one of the world leaders in this area. We are also trying to look at high-risk populations and genetic screening. There are sub-populations of prostate patients that may have a higher risk of prostate cancer, and we are looking at these populations to see if we can come up with methods to screen these patients to diagnose prostate cancer early.
- Chu How are you doing this screening, are you taking blood samples or are you looking at the prostate tissue itself?
- Kelly What we know is that there is a relationship between patients who have breast cancer and families with breast cancer that are hereditary. These patients who have hereditary breast cancer are also at an increased risk for prostate cancer. So, with our colleagues in genetics, we are looking at this population to see if we can help diagnose these patients with prostate cancer earlier in the patient population, or in families that higher risk of breast cancer.
- Chu Does that relate to BRCA 1, and BRCA 2?
- Kelly BRCA 1 and BRCA 2 patients and their siblings are at a higher risk for prostate cancer.
- Chu It is interesting because we typically think of defects in BRCA 1 and BRCA 2 as leading to increased risk for breast cancer and ovarian cancer, but now you are saying that there also is an increased risk for developing prostate cancer as well.
- Kelly That is correct.

Chu In my own area of GI cancers, there is a cancer that also seems to be associated with BRCA 1, BRCA 2 alterations; pancreatic cancer. I know our close colleague, Dr. Saif, is also working with the folks in genetics to try to tease that out a bit more.

Kelly That is correct.

Chu Kevin, when patients present to you, which typically is in an advanced stage, what are the different treatment options that are available to them?

Kelly We have a lot more treatment options compared to 10 years ago. While hormonal therapy can be very effective in controlling the growth of prostate cancer, that only holds the prostate cancer 12 to 18 months and then the patients have progressive disease. At that juncture, there are other hormonal therapies that we can try, but chemotherapy can be very effective for some of these patients. We typically use chemotherapy drugs such as Docetaxel, which is a very common chemotherapy and has shown to improve survival in large randomized trials. What we are doing here at Yale, is we are looking at different combinations of this chemotherapy; new drugs that inhibit what we call anti-angiogenesis, or new blood growth, in combination with chemotherapy. We are looking at other new agents that look at inhibiting different mechanisms within the prostate cancer cell itself. So, there are a lot of new therapies that we are trying in prostate cancer, and there is a lot of hope.

Chu If anyone is interested in learning more about clinical trials that you are directly involved with, how can they access that information?

Kelly They either can go to the Yale Cancer Center website where the clinical trials are listed, or they can give my office a call at (203) 737-2572.

Chu Again, if you are going to the Yale website, it is www.yalecancercenter.org, and your direct office phone number again Kevin?

Kelly (203) 737-2572.

Chu Is there any role for either hormonal therapy and/or radiation therapy in treating patients with advanced disease?

Kelly Well, in patients who are newly diagnosed with locally advanced prostate cancer, standard therapy for these patients is hormonal therapy and radiation therapy.

Chu Is there any role for surgery in patients who might present with metastatic disease?

Kelly It is typically not an option, but there are cases that we do surgery on some patients. If they have a particularly aggressive tumor, sometimes we consider surgery, but typically, once it has spread outside of the prostate gland, surgery is not an option.

Chu Again, for our listeners, you are very actively involved in developing clinical trials for prostate cancer as well as for other GU cancers. Could you highlight a couple of the studies that you are playing a leading role in, not only here at the Yale Cancer Center, but really throughout the nation in developing clinical studies?

Kelly We work with large national groups to design clinical trials to see if we can improve the overall care of prostate cancer patients. One particular trial is looking at the common chemotherapy drug Docetaxel and another drug called Avastin, or Bevacizumab, which inhibits the growth of new blood vessels. This is a large randomized trial that is going on in multiple centers throughout the United States with a little over 1000 patients. Another trial that has just started is looking at the role of chemotherapy upfront in the patient who has very aggressive prostate cancer. During this randomized trial, standard chemotherapy is received along with Docetaxel before surgery, and is compared to surgery alone. This is a very important trial for us. It is going to tell us a lot about how we treat prostate cancer in the future. If patients do have questions about this we can answer them here at the Yale Cancer Center, or at one of the several centers around the country that will also have this trial open.

Chu Kevin, thank you so much for joining us today on Healthline. This has been really terrific, and we look forward to having you back on a future program. Remember, tune in to WTIC NewsTalk 1080 every Sunday morning at 8:30 a.m. for Healthline with the Yale Cancer Center. Our next program will feature a discussion of pediatric cancer survivorship with our guest Dr. Nina Kadan-Lottick from the pediatric oncology group here at the Yale Cancer Center. Until then, this is Dr. Ed Chu from the Yale Cancer Center, wishing you a safe and healthy week.