Dan, maybe we can start off by you telling us a little bit about yourself and what you do.

Okay. I am a general urologist. I do focus a lot on men's health issues. Men's health issues are prostate issues, prostate cancer is one of the big things that we deal with. BPH is another thing that is a noncancerous growth of prostate tissue. Men's health deals a lot with sexual function, so erectile dysfunction, problems with fertility, problems with testicular pain, testicular cancer. So, men's health is anything that is kind of unique to men.

So, kind of really broad. What is the most common complaint that men come in with and tell us a little bit more about the spectrum.

The thing that men come in with usually are urinary symptoms. What really bothers men is getting up at night to urinate. That is the thing they focus on the most. And then as they talk to me about their symptoms, you find that they have a lot of urgency to urinate, slow stream and then you start to realize it actually affects them. They are maybe at a meeting and they will dehydrate before the meeting. They are afraid they will have to run to the bathroom and they are afraid that is going to happen or they really do not want to go out. I mean, it could be pretty severe. They do not want to go shopping with their significant other because they are afraid they are not going to get to the bathroom on time. So, you start to realize that urinary symptoms really affect the quality of life and it happens so gradually sometimes that men simply just accept it as part of ageing, not realizing that it is actually something that is affecting them and it is very treatable. And so, what I am really talking about is enlargement of the prostate, what we call BPH.

And so, I guess the first thing that we need to say is, if you are having these symptoms, it is not just I am getting older, it is part of life, but something that they should really see their doctor about?

Definitely they should see their doctor because they do not have to accept these urinary symptoms and sometimes it is a signal that something else might be happening that is even more dangerous. So, if a man is having a lot of difficulty urinating, he could actually be developing something called urinary retention where his bladder is getting larger and larger, it is filling up and over time, it is possible that the bladder will not be able to empty anymore. And that is a situation where somebody will even have to have a catheter or catheterize himself. They can be prone to urinary tract infections, prone to bladder stones. The worst case scenario is that pressure over time builds up and actually backs up
to the kidneys and can develop kidney failure. So, these are not just urinary symptoms that are an inconvenience in quality of life, these are real health issues.

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<vChagpar>As you know, a lot of guys will likely say, you know what, yeah this is something, I am going to just live with it, it is nothing, but what you are saying is, do not kind take that macho kind of role of this is nothing I can handle it whatever, but that these could really lead to some serious health problems, see your doctor.

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<vKellner>Absolutely. They should talk to their doctor about it, or if they have a urologist, realize that the urologist can help them with these problems, and it is interesting, men - they deal with this all the time and sometimes it is something that is almost humorous to them, like some men will say, you know when I play golf, I know everywhere on the golf course where I urinate. And they talk about it with their friends and it is something that is so common and as men get treated, they say, you know what I am going to tell my friend about you because they are really happy and as a urologist, actually one of my favorite things to treat is BPH, enlarged prostate because when you go from not being able to urinate, to being able to urinate, you have made a friend. You know, you are really helping someone's quality of life. And, it is almost immediate the satisfaction you gain as a physician versus treating some sort of chronic problem where you do not know for 20 or 30 years if you have made a difference, something like not being able to urinate and then you could urinate, you get some instant gratitude.

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<vChagpar>So, let us suppose a guy presents to you and says, I really have been having troubles urinating, I get up in the middle of the night, I have this sense of urgency, I do not really have a good stream. They come to you, what is the process that you go through to determine what is going on and ultimately reaching a diagnosis and fixing it?

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<vKellner>When people come and they start to tell us some of the symptoms they are having, we will listen and take a history. With anything in medicine, first thing is just get more information, get a history on the patient, how long this has been happening, start to direct them a little with things like, what is your flow like, does it take a lot to get started, does it start and stop, do you have urgency, do you have frequency, do you ever have accidents where you wet yourself, do you wake up wet with urine, how long this has been happening, and then you look through their medications, you look at other surgeries they may have had and then you get into family history. A lot of times, men will have history that their father had problems with the prostate. Beyond that, then we start to think about things like a physical exam. So, we could examine a man's prostate with a digital rectal exam. It gives you a sense of the size of the prostate. Now, one thing that a lot of physicians do not realize, it is not the size of the prostate, even a small prostate can create very, very obstructive symptoms. So, sometimes it is the shape of the prostate. When men have enlargement of the prostate, it is not just an outward growth, it is inward growth and it obstructs the channel and you cannot feel that by doing a rectal exam. So, physical exam is part of it. We look at other things, we could measure if a patient is emptying their bladder all the way by doing either a bladder scan or an ultrasound and you can learn a lot about if the bladder has some changes in it. The bladder wall could start to get thicker, it could start to have this irregular appearance, we call trabeculations, almost like extra muscles that are forming in the bladder and the bladder may start to retain urine, so it is just simply not emptying. That is a nice way to be able to really identify how advanced the situation is and then there is a scale we use, it
is called the International Prostate Symptom Score and 7 questions that are scored and it will basically categorize someone if they have either mild, moderate or severe symptoms. And that may kind of steer us on how urgent the situation is. And then, you could really tailor treatment to the patient based on their severity, other problems they are having, their overall feeling about how they want to address the issue. A lot of it does come down to quality of life and if it is really effecting quality of life, that is more reason to move forward and do something. We usually start with medication, there are certainly medicines that work, but beyond medications when they are not working or someone has intolerance to medicine or side effects to medicine or cost is an issue with medicine, there a lot of procedures that are available. And now, we have procedures that are actually available in the office without anesthesia which really help people, and then there is more aggressive procedures that are done in the operating room, which are very, very effective to help people urinate better.

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<vChagpar>So, let us talk a little bit about that. If you have mild cases, you start with medications. One of the things that you said though which was interesting to me was if the cost of the medication is an issue, you might move to a procedure. So, how expensive are these medications and is that often an issue for men where the procedure is actually going to be more cost effective than the medication?

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<vKellner>Right. I think you really have to kind of analyze it over someone's lifetime, how much medication costs, but certainly that is something that bothers people, but sometimes, you just do not want to have to take a medication. A lot of the medicines that are specific for prostate have side effects. And I do not want to get too much into talk of medicine, but there are sexual side effects that happen with certain medicines. Some blood pressure issues that happen with certain medications. And so, what happens is people will take the medicine, but sometimes they just do not want to have to stay on it. And so, you just have to say, well there are other options, you do not have to necessarily stay on medicine. Now, if you have a patient who is taking medicine and they are seeing really good results and they have no side effects and they are really opposed to any procedures, it makes sense to stay on medication. If medicine is just not working that well and you do not want to take medicine and they are having sexual side effects, then it is really time to think about other procedures. Because in general, the procedures are more effective in helping these symptoms, but with anything that is more effective, there also could be a little bit more risk, and so risk tolerance is also one of the issues and how much risk do you want to take. I mean, you get more bang for your buck.

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<vChagpar>So, the second kind of level up from medications are these in-office procedures and I have to say you are going to have to tell me more about these in-office procedures because I remember back in the day we used to talk about medicines and then we used to talk about TURPs, which is kind of a transurethral resection of the prostate where the urologist would go in there and ream out the prostate, but that was really done in the operating room, but now you are talking about procedures that can be done in the office that allow people to have symptom relief, tell us more about those.

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<vKellner>Yes. One of the procedures that we are doing is actually called the Urolift procedure, and that is a procedure where you are not cutting tissue, burning tissue, destroying tissue like you do with a TURP, what you are doing is you are simply moving tissue. It is a special device that puts little implants in the prostate, it moves the tissue physically out of the way and men will urinate
So, it pulls it away from the urethra.

It is almost like taking curtain pins and pushing curtains out of the way. And patients recover very quickly, within anywhere from a day to maybe a week. They may have some irritation from the actual procedure, but they will report better urinary flow, less urgency, less frequency. Many times, the goal is to get them off of medication and with this procedure, there are absolutely no sexual side effects and we have good long-term followup that shows at 5 years, there is a low re-treatment rate. And it does not burn any bridges. If that procedure over time is not working as well as it did initially, you can go on to do a number of procedures on the prostate. You have not burnt any bridges. Now, with this procedure, it is done in the office, we do it with a local anesthetic, patients go home the same day, usually without a catheter and within a few days, we see them and they start to have improvement already. It is actually covered by almost every insurance in our state.

Wow. Okay, that sounds pretty good. You mentioned procedures in office, are there others that people have choices to decide between?

Yes there are. I mean, so this is kind of like this resurgence of treating people with BPH. There is another procedure where you actually put energy into the prostate in the form of steam and what that does is it actually destroys the prostate tissue and over time, the prostate will remodel, it will reabsorb the injured tissue and it will open up the channel. So, it is not as instantaneous as the UroLift, it is something that you do a treatment, it does take probably several weeks before you start to see benefit, but again, this is something that usually could be done in the office, this is a little bit more comfortable than the UroLfit, and then there are some other things that are basically coming down the pike. Some of it is not covered by insurance, but it is a time where people want minimally invasive treatments because what they want is they want something effective, they want something that is not going to put them out of commission for a long time, they do not want to deal with side effects and a lot of these things are becoming very exciting. And this is you know, we have a very large population of patients that is developing BPH, all the baby boomers have gotten to an age where we have a lot of large prostates and people who have trouble urinating. And so, there is a lot of people who are even outside of medicine, engineers who actually get involved in these things and help design these new technologies.

Can you tell us about some of the things coming down the pike.

There is something that exists now, it is a basically like an aquajet, it is like a water pick that kind of is able to go through the tissue and open it up almost like a robotic procedure. That would be done under an anesthetic, but once you set up the device, the machine, it basically opens up the tissue that is called the aqua beam and there are a bunch of other things that are certainly in the works. Now, the tried and true surgery which sounds awful but it is not is still considered a TURP. And that stands for transurethral resection of prostate. Now, that procedure is done through the urethra where you scrape the tissue away and the patients are usually in the hospital overnight, but that does give you the best outcomes.
It sounds like they are still the tried and true, but there is a lot of interesting stuff going on that might be a little less invasive and potentially equally effective. We are going to take a short break for a medical minute and come back to learn more about men's health with my guest, Dr. Dan Kellner.

Medical Minute Support for Yale Cancer Answers comes from AstraZeneca, providing important treatment options for various types and stages of cancer. More information at astrazeneca-us.com.

This is a medical minute about breast cancer. The most common cancer in women. In Connecticut alone, approximately 3000 women will be diagnosed with breast cancer this year, but thanks to earlier detection, noninvasive treatments and novel therapies, there are more options for patients to fight breast cancer than ever before. Women should schedule a baseline mammogram beginning at age 40 or earlier if they have risk factors associated with breast cancer. Digital breast tomosynthesis or 3D mammography is transforming breast screening by significantly reducing unnecessary procedures while picking up more cancers and eliminating some of the fear and anxiety many women experience. More information is available at YaleCancerCenter.org. You are listening to Connecticut Public Radio.

Welcome back to Yale Cancer Answers. This is Dr. Anees Chagpar and I am joined tonight by my guest, Dr. Dan Kellner. We are talking about men's health today, and I think one of the big points that was made before the break was how important it is for men out there who are having urinary symptoms, you have frequency or urgency or you are waking up in the middle of the night to go to the bathroom where you cannot go or your stream is not good and you think, well you know it is part of life, I am getting older, this is just one of those things I will deal with it, how important it is to go and see your doctor or urologist and get it checked out because not checking it out can not only make those symptoms be there so that it lowers your quality of life, but it can also lead to all kinds of problems with urinary retention and infections, you really do not need that. We were talking right before the break about how there has really been an explosion of innovative technologies, some of which are really minimally invasive that can really do a good job in helping urinary retention from BPH or benign prostatic hypertrophy, that enlargement of the prostate that is often cause of all of these symptoms that men face. Dan, you were saying that beyond medication, there are these intra-office procedures that we can do, but the gold standard remains the TURP, the scraping out of the prostate done in the operating room. But I am wondering if there are other technologies that you are using now also in the operating room that might be better or different or have other advantages over the tried and true TURP.

Yeah. There is actually. There is a procedure we do now, it is called the HoLEP, which stands for holmium laser enucleation of the prostate, and this is a very exciting procedure because what it is doing is you are using laser energy to enucleate the prostate, now just to give you a picture of what this is like, picture the prostate as an orange and a man has to basically urinate through a thin drinking straw that is in the middle of that orange, and as that orange pulp expands, it presses on that drinking straw, and when you do a TURP, you are in the middle of that drinking straw, trying to scrape away and create a larger basically path for that straw to go through. While with the HoLEP, what you do is you are getting into that orange and you are getting right between the pulp and the peel. Now, you know there is not a lot of juice between the pulp and the peel and that is the same with the prostate. You get into a certain plane between what is called
the adenoma that is the area that is obstructing and the outside of the prostate, which is the surgical capsule, that is the peel and you could move all of this orange pulp out of the prostate and there is a lot less bleeding. Because what happens is, as you encounter the major blood vessels that feed the prostate and you could directly control them with a laser, and then all that tissue that is obstructing gets moved into the bladder where it is free floating. Now, you do not have to make any incisions to take that tissue out. We have a special device called the morcellator, which goes through our instrument and it basically cuts and sucks the tissue out of the bladder. So, you are able to have a complete removal of the inside of the prostate without any incisions. Historically, the only way to do that was to do something called the simple prostatectomy, which is somewhat of a morbid procedure. Now to do that surgery, you have to make an incision through the lower part of the abdomen, make an incision into the bladder, take your finger, push it down to the prostate and scoop out the inside of the prostate. Patients are in the hospital for probably anywhere from 5 days to a week, they have catheters draining them, irrigating them. With this procedure, you are doing the equivalent of that procedure without any incisions, there is minimal bleeding, patients are often going home the next day and now there is a move to possibly send patients home the same day and they have a catheter overnight and it is amazing how good the outcomes are after these surgeries.

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<vChagpar>When you compare that to the tried and true TURP, I mean with the TURP, people go home the same day or the next day too right?

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<vKellner>Patients often stay overnight with the TURP, but with the TURP you are limited by the prostate size. A normal prostate is say the size of a walnut, you could do prostates up to maybe the size of 5 walnuts, up to about what we call 100 g with the TURP, but when it gets too big, it is very difficult to remove enough tissue with the TURP, there tends to be a lot of bleeding and it takes quite a while. Now, with the HoLEP procedure, there is no limitation on size. You can do prostates that are 10 times the size of a normal prostate. There really is no limitation, and there is a lot less bleeding than a TURP. The other thing with the HoLEP is the chance of needing another surgery is almost 0%. The chance of needing another surgery after TURP is probably about 7% in the literature. So, the HoLEP is a more complete removal of tissue with less bleeding and it is something that can be offered for very large prostates, which could not be done with the TURP. People with very large prostates in the past had to have the open simple prostatectomy, that is a morbid procedure I was trying to describe.

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<vChagpar>And so, is it covered by insurance?

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<vKellner>Oh yes, it is covered by insurance, a very effective procedure.

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<vChagpar>The other question that I think people have or could have is, when we talk about all of these urinary symptoms, having difficulty going, urgency, frequency, difficulties starting and stopping streams and so, sometimes people worry about prostate cancer as opposed to just simple benign prostatic hypertrophy. How do you tell the difference between the two and is a HoLEP or TURP good enough for a prostate cancer?

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<vKellner>No. What we are describing are treatments for BPH, which is benign prostatic hyperplasia, that is benign growth of prostate tissue, which men are often symptomatic from. With prostate cancer, there are usually no symptoms. The
way we find prostate cancer is typically through PSA testing, which is a blood test which is often done by the primary care doctor or through a urologist usually once a year, and the PSA may be the earliest way to find prostate cancer. Now, a PSA being elevated does not mean there is prostate cancer, but it means that there could be a chance that there is prostate cancer, and so further workup is going to be needed. Also a digital rectal exam is important because there are times where you can feel a nodule or a firm area in the prostate and that could be a sign of prostate cancer. Now, it is possible to have prostate cancer with a normal PSA and it is possible that it is prostate cancer, even if you do not feel a nodule, so there has to be some suspicion that starts to develop. You know, family history may kind of clue you in. If there is a first-degree relative who has prostate cancer, that would be another reason maybe you have to be suspicious or if you see a normal PSA but it is just trending upward, even if it is in the normal range, but it keeps going up, that could be a sign of possible prostate cancer, and ultimately what it comes down to is the only way to diagnose prostate cancer is to do a prostate biopsy. And that is really a relationship between the urologist and their patient about where are we with the PSA, where are we with your rectal exam, is there enough suspicion, do we have to go after the biopsy and see what is going on. Now, there are times when we do a surgery like a TURP or a HoLEP and all of that tissue gets sent to the laboratory. We sometimes do find prostate cancer with these procedures and patients at times will even need treatment of that prostate cancer, but with prostate cancer, there are many, many, many ways to approach the actual treatment of prostate cancer if you are diagnosed with it. And it really comes down to what kind of prostate cancer do you have, is it an indolent slow growing cancer which is never going to cause problems or is it really, really aggressive prostate cancer that needs to be treated and if you do not do something, there is a chance that is going to cause problems.

I want to just pause for a second because if prostate cancer does not cause symptoms and oftentimes this is picked up on a PSA test that is done by your family doctor, but a lot of times, people are saying that their screening tests are not including a PSA because that has been controversial as to the benefit of PSA. So, should men be getting PSA tests and if so, starting at what age and how frequently?

There has been a lot of debate and controversy over PSA as a screening test. A number of years ago, the US Preventive Task Force had given prostate cancer screening with a PSA a D rating and at that point there was a lot of confusion amongst primary care doctors, should they do PSA testing or not do it, and the American Urologic Association has always felt that PSA testing should be done on a regular basis. Now, the US Preventive Task Force relooked at the data and basically made an addendum where they basically said that the decision to test PSA for screening is a decision that should be made between the physician and their patient. And the American Urologic Association recommends that a man starting at the age 55 to the age of 70 should have their PSA tested once a year. Now, if someone has a strong family history of prostate cancer or increased risks or if they are African-American or African-Caribbean, they should consider maybe earlier PSA testing. So, right now, the way things stand, it is recommended that men should have PSA testing. Again, there has to be conversations that happen. I would not want to just sneak a PSA on a man without having some sort of understanding of what are we trying to do, do you believe in screening, do you want to be detected early because if you find prostate cancer at an earlier stage, you have better options, there are better ways that you could approach it and handle it. And the fact is, if you are diagnosed with prostate cancer, we have a large move towards doing what is called active surveillance. We are watching probably half the patients that are diagnosed with prostate cancer and they do not need treatment. So, not everyone who is diagnosed with prostate cancer needs to have
treatment. So, moving on from different treatments, there are surgeries that could be done, there is radiation that could be done, it gets quite extensive. Any patient of mine who is diagnosed with prostate cancer, I usually set them up for a meeting at the very end of the day because we never know exactly how long that conversation is going to go, but you need to really spend a lot of time to talk about all the ins and outs of prostate cancer.

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<vchagpar>But at a minimum, I think the big clarifying point for me at least is that men starting at the age 55 should get an annual PSA because I know that has been really controversial and there are a lot of guys out there who are like, you know what, PSA really should not be done and so my doctor is not doing it because they say that it really is of limited value, and I think part of that might be related to the fact that some prostate cancers as you say are quite indolent and do not require treatment. And so, this concept of why do I need to find it early if it is going to be indolent and there is this whole question about whether PSA testing is really going to be valid because you can have prostate cancer even with a normal PSA, should we bother doing it, I think what you clarified for us is, you think that there is still value in annual PSA screening regardless.

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<vkellner>Yes. I do think there is value in it. I think what is important is that urologist does not have a knee jerk reaction to one elevated PSA. It should not be that a PSA is elevated and suddenly you are scheduling the patient for a biopsy. I think it is important that you slow down, that you do another PSA maybe after a few weeks or a few months, you tell the patient let us not do anything that is going to falsely raise the PSA, it is probably good to abstain from sexual activity before having a PSA, you do not want to do a digital rectal exam and then send the patient down the hall to have their PSA checked right after your appointment, theoretically maybe a long bike ride could create an elevated PSA. I mean, there are a lot of things that may make false positive inflation of the PSA. So, you recheck another PSA. If the PSA is still elevated, then it is time to think about doing a biopsy, and again, it takes a lot of time, you need to have conversations and you really want to approach this as a team approach on how you are going to basically screen and diagnose prostate cancer.

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<vchagpar>Dan, if people do not have a PSA done on a regular basis and they cannot look at these trends and so on and so forth, how would people find out that they have prostate cancer if prostate cancer does not present with symptoms and they do not have their PSA checked, how would they ever know that they have prostate cancer?

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<vkellner>Historically before they did PSA screening, people would present with advanced prostate cancer, so advanced prostate cancer could be pain in the bone, it could be prostate cancer that is growing in the spine where they are having trouble walking or they are having trouble urinating or having bowel movements because the cancer is actually so advanced. We do not see a lot of patients who present with that very, very, very advanced prostate cancer anymore because of prostate cancer screening. Now, more advanced prostate cancer sometimes has some maybe subtle symptoms, with more advanced prostate cancer, people sometimes describe some urgency or frequency to urinate or maybe some blood in the urine, but the vast majority of patients have no symptoms of prostate cancer.

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Dr. Daniel Kellner is an Assistant Professor of Clinical Urology at the Yale School of Medicine. If you have questions, the address is canceranswers@yale.edu and past editions of the program are available in audio and written form at
YaleCancerCenter.org. We hope you will join us next week to learn more about the fight against cancer here on Connecticut Public Radio.