**Joey Wahler (Host):** It's an advanced treatment used to shrink an enlarged prostate. So, we're discussing water vapor therapy, also called the Rezum Procedure. Our guest, Dr. Michael Sweeney. He's a urologist with Memorial Health.

This is Memorial Health Radio from Memorial Health System. Thanks for listening. I'm Joey Waller. Hi there, Dr. Sweeney. Thanks for joining us.

**Dr. Michael Sweeney:** Good morning. Thanks for having me.

**Host:** So first, just how common is an enlarged prostate in men? If I'm not mistaken, most if not all men, if they live long enough, are going to get one at some point, right? And what are its symptoms?

**Dr. Michael Sweeney:** Yeah, that's right. It's a side effect of aging. As we get older, the prostate tends to just keep getting larger. Sometimes that causes some troubles with urination. So, that's the symptoms that come out of having an enlarged prostate. So, just having an enlarged prostate in and of itself is not really an issue unless it causes trouble with urination. And that's when as guys get older, they can run into some trouble having to urinate more frequently, more urgently, getting up more at night. Those are some of the classic side effects. Some guys can be completely unable to urinate, can land in the emergency room with some trouble.

**Host:** And does that depend upon how large the prostate gets?

**Dr. Michael Sweeney:** It's not a direct correlation. They're associated, but you can have a very large prostate and urinate without any difficulty. And you can have a somewhat smaller prostate and have a great deal of urination. So, the prostate's one aspect, is one component of urination. The bladder is also involved in the equation. So, some of it depends on bladder function as well. But in general, there's a correlation between a larger prostate and more difficulty urinating.

**Host:** Gotcha. So for those listening unfamiliar with water vapor therapy, what exactly is this Rezum procedure and how does it affect the prostate?

**Dr. Michael Sweeney:** It's a relatively new procedure. It's not brand new. It's been out for a little while, but it's a newer procedure. It allows us to decrease the size of the prostate, hopefully with the intention of improving urination. The advantage is it's a much less invasive and a much easier-to-recover-from procedure than some of the other more traditional treatments. It's a small enough procedure that, in a lot of cases, we can even just do it in the office, patients do quite well with it.

**Host:** I would imagine in your experience, anytime a procedure can be done in the office instead of elsewhere right away, that makes patients feel better, right?

**Dr. Michael Sweeney:** Correct. You know, some patients just prefer to be asleep for it, and that's totally fine as well. But some patients, anesthesia is an undue risk. And so if we can avoid that, this is one of the very few procedures that we can do to treat the prostate that doesn't require going to sleep. And so, that has its definite advantages. There's an avoidance of having to even come to the hospital. That's an advantage all by itself. There's a lot of sick people in the hospital and that's where things can get other infections, et cetera, that you don't want to get. So, the staying out of the hospital, number one, is an advantage. Number two, not having anesthesia is an advantage.

**Host:** Absolutely. So doc, for men with an enlarged prostate, who's a candidate for this Rezum procedure and is there anyone that's not?

**Dr. Michael Sweeney:** The procedure is widely applicable, but not to everyone. It's just like any other surgery or procedure in medicine. There is no one-size-fits-all remedy for every situation. It's applicable to most patients, but there are a few limitations. Prostates that are very, very large, it's not an ideal procedure. Again, for patients who can't have general anesthesia, it becomes a much more favorable procedure, even when it's not really the ideal procedure. But in general, it's not applicable to every single patient. It really has to be customized. There are limitations associated with prostate size and a few other criteria, but it is broadly applicable to most patients.

**Host:** And so, how long does a typical Rezum treatment take and what will the patient experience?

**Dr. Michael Sweeney:** So, the procedure itself, if they're getting general anesthesia, or what we call asleep in the operating room, the procedure takes longer to put the patient in position than it does to do the actual procedure. The procedure itself is nine seconds per treatment zone. And roughly, most prostates receive between 2 and 4, sometimes 5 if there's a median lobe, treatments. So, nine seconds per treatment, it's quite quick. But there is a little bit of prep in terms of positioning, et cetera. If the patient's being done in the office, we don't do general anesthesia, but we do a local anesthetic. So, we have to put lidocaine into the prostate is what we call a prostate block, and that takes a few minutes as well. So, probably five to 10 minutes to do a prostate block and roughly five to ten minutes to do the actual prostate treatment.

**Host:** Wow, that is quick indeed. And so when you say nine seconds per shot, if you will, that's a very specific number. Any idea how that was arrived at?

**Dr. Michael Sweeney:** I can't tell you the exact reason, but that's where we get the most treatment effect with the least side effects. I think it was mostly just found by studies in what were originally animal models and found that that was an adequate treatment duration for a treatment zone. The treatment we're discussing is basically using a very small needle with a prostate that's been anesthetized and that needle delivers steam heat via a needle into the prostate. That's why it's such a small procedure. And that transfer of energy using steam does conduct quite well, and it goes quite quickly. In about nine seconds, you can actually see the tissue changing its color and vascularity, suggesting that the treatment is having its effect.

**Host:** And so, give us a little bit more of an idea, if you would please, as to exactly what's happening as a result of this procedure that's shrinking the prostate.

**Dr. Michael Sweeney:** Yeah. So, the procedure involves putting a relatively small camera in the urethra, so there's no incision that needs to be made. Small camera in the urethra with a lot of numbing medicine, and there's a small needle that extends from the end of the camera. At the appropriate positions, we extend that needle into the prostate tissue. And you deliver steam heat, water vapor is what we call it. It denatures basically the cells and the proteins in the cells and it leads to their death. So, you're basically killing prostate tissue inside the prostate, and that causes the prostate to shrink.

**Host:** And you mentioned earlier that you can actually see it happening immediately, right?

**Dr. Michael Sweeney:** That's right. You can see it in real time. You can watch the tissue changing its character, both color and vascularity. And it's usually a sign that you're getting a good effect. And you can see it happening, then you move to the next zone, and you see where you've been and where you haven't. And then patients in followup, if there's a need down the road to look in with a camera, you can actually see where it's done, its changes where the tissue has noticeably visibly shrunk.

**Host:** And so, when you combine the fact that the treatment itself is so quick, and that you see results so fast, that's really cutting edge, isn't it?

**Dr. Michael Sweeney:** Yeah, it's great. Patients don't see the benefit right away after the procedure because as we mentioned, it destroys the tissue, but the tissue actually takes time to then physically shrink. And that involves the body reabsorbing that tissue. It's almost like a punch in the arm, you get a bruise, and the body just fixes it. And that's kind of what we're doing to the prostate. We're causing some damage on purpose and then the body goes in and fixes it. So, that mop up, if you will, it varies depending on how big the prostate is that we're treating. But in general, there's a short-term catheter, where the prostate is swollen, there's some delay in being able to urinate after the procedure and that catheter has to stay in five to seven days. Once the catheter comes out, patients notice really in about two weeks, they start to see a visibly stronger stream.

**Host:** And how do you determine initially how many treatments a patient needs?

**Dr. Michael Sweeney:** It's a very visual. You measure the prostatic length through the scope. There's an internal fiducial is what we refer to it as an internal marker. You can measure the size of the prostate. And roughly, you want to treat prostate tissue between every one and two centimeters of length. And so, the size of the prostate as we visually measure it intraoperatively or intraprocedure, we can decide how many administrations of therapy.

**Host:** A few other things. You mentioned what takes place during recovery, kind of a step back to take several steps forward, if you will. How about other side effects from this, any?

**Dr. Michael Sweeney:** So, that's a great question. You know, by comparison to other therapies in this domain, things like the traditional TURP or even the laser TURPs, really very few side effects and less impact on other functions of men's health. Number one, we do want to improve the urination, but the prostate's involved in other functions, specifically sexual health.

And this has the, one of the lowest impacts on sexual function than any of the other treatments of prostate tissue, including TURP, laser TURP. And even in comparison to Urolift, it maintains erections and ejaculatory function in the majority of men. Not always, but in the majority of men, and to a larger degree than other therapies.

**Host:** So to be clear, you're saying it's possible then that once healed, men would have no impact in that area as far as a change.

**Dr. Michael Sweeney:** Some men see no impact, some men see very little impact. It's highly variable in terms of what your function was going into the procedure. But some men do report basically no impact on their sexual life.

**Host:** Gotcha. How about the length that these improvements last? Is a second round of treatments ever needed?

**Dr. Michael Sweeney:** Yeah. That's the durability of the procedure. And the studies we have so far, again, this is a relatively new procedure, so we don't have really long-term data to go by. But at least at five years, we're seeing about a 5% retreatment rate. So, that's quite low. There are cases where we do have to go back and retreat, but it's not very common, at least in the first five years that we've had study data for.

**Host:** And then finally, just to sum up here, doc, you kind of alluded to earlier the fact that every case is different naturally. But generally speaking, after the Rezum treatment, what results can patients expect? For instance, when we talk about urinary stream, can someone in their fifties or sixties go like they could when they were in their twenties or thirties, or is it not quite that drastic?

**Dr. Michael Sweeney:** Well, it depends on how they were going in their twenties and thirties. So, everybody is a little bit different. The classic, "Doc, will I be able to play the piano after this procedure?" And the question is, "I don't know. Could you play the piano before this procedure?" The results vary. But in general, patients are very happy. And I tell you, I hear it over and over, "Doc, I wish I would've done this 10 years ago." It's one of those things where as guys, we don't really want to do stuff down there if we don't have to, and we delay and we put off and we delay. And once you do this procedure, I hear over and over, "Doc, I'm peeing like a 25-year-old. I wish I would have done this 10 years ago." Not every single patient, but I hear that pretty frequently.

**Host:** Well, that's great news indeed. Folks, we trust you're now more familiar with the Rezum procedure, water vapor therapy. Dr. Michael Sweeney, thanks so much again.

**Dr. Michael Sweeney:** Thank you.

**Host:** And for more information or to connect with a provider, please visit mhsystem.org/urology. Again, mhsystem.org/urology.

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