>> RACHEL MARKLEY: Good morning and afternoon to everyone. And welcome to the
Pelvic Health Matters Webinar Series for Women with Mobility Impairments. It is exactly
1 p.m. here in Houston. So we are going to begin. We are going to record this webinar
for archiving. So I will begin recording now.

>> Recording has started.

>> RACHEL MARKLEY: Before we begin the session today, we would like to review
some of the features of the webinar platform. My name is Rachel Markley, with TIRR
Memorial Hermann and the Center for Research on Women with Disabilities at Baylor
College of Medicine and I will be serving as the moderator for this session. This program
is brought to you as a collaborative effort between TIRR Memorial Hermann's Spinal
Cord Injury and Disability Research, Baylor College of Medicine, the American
Congress of Rehabilitation Medicine, Spinal Cord Injury Interdisciplinary Special Interest
Group, Women's Health Task Force, and the Christopher and Dana Reeve Foundation.

People are joining us using a variety of media including the webinar platform, listening
via the telephone, and using real time captioning. A copy of today's PowerPoint presentations are available at www bcm edu/crowd, c-r-o-w-d. At the conclusion of the presentations there will be an opportunity for everyone to ask questions. You may submit your questions using the chat area within the webinar platform. We will address them at the end of session. So feel free to submit them.

Let me introduce, Dr. Margaret Nosek and Dr. Sophie Fletcher. Dr. Nosek is director of the Center for Research on Women with Disabilities at Baylor College of Medicine and Senior Scientist at TIRR Memorial Hermann. Dr. Fletcher is a urologist at the Sutter Pacific Health Foundation in Santa Rosa, California, specializing in women's pelvic health and reconstructive surgery.

And now I would like to turn the program over to Dr. Nosek.

>> MARGARET NOSEK: Thank you, Rachel. Well, I'm so pleased to launch our webinar series and I want to thank Rachel and Dr. Fletcher for joining us today. Dr. Fletcher is one of the pioneers in providing pelvic health services for women, especially women with disabilities. So having her expertise to share with you today is really an honor.

Rachel mentioned those who sponsored us, TIRR Memorial Hermann and the Christopher and Dana Reeve Foundation, and the Women's Health Task Force of the ACRM Spinal Cord Injury ISIG. We have no conflicts of interests to disclose.

I want to thank our medical advisors. Dr. Fletcher, Dr. Ellen Fremion who you will hear from next week, and Dr. Rosemary Hughes, Dr. Cindy Ivanhoe, Dr. Cynthia Peacock, Dr. Terri Samuels, Dr. Argyrios Stampas, Dr. Lisa Wenzel. And our community advisors: Leanne Beers, who is going to lead the panel you will hear on the third webinar in the series, Leslie Carcamo, Vanessa Cizmar, Michelle Colvard, Deirdre Davis Butler, Tahani Hamdan, Rosemary Hughes, Meena Outlaw, Maria Soria, Heather Taylor, Chitra Viswanathan, and Wendy Wilkinson.

So how did we get started on this topic? I want to share with you briefly about my personal story. For as long as I can remember, my social life was governed by my bladder, bowel and uterus. Yes, that's me in those pictures. You can see me as a really young kid, like my 16th birthday party and then as I got into disability advocacy and later, that's my circle of friends.

You know, every time I wanted to go out and socialize, I could only do it as long as my bladder could literally hold it, you know?

And, I had to regulate what I ate to make sure I didn't have any bowel accidents. That was always something that was really on my mind and then managing menstruation was
such a burden for me during my younger years.

When you sit a long time, you know, you can pool, and then when you move, transfer, oh, my goodness, it's like a geyser, I tell you! So I'm sure some of you have had these experiences.

Do any of these words apply to you? You have to do excessive planning, you feel embarrassed and you feel so dependent on other people to get the help that you need. There's always fear. Oh, my goodness, what if I'm out on a date and I have to go to the bathroom, what will I do? What if I leak? Oh, man! You feel so hopelessly alone. There's nobody to help.

And sometimes it's very painful! Oh, I have such memories of all the pain, of trying to hold it, you know? You have resentment and anger that you have to deal with these problems. Everybody else can just get up and run to the rest room, but you have to wait. Waiting is a really big issue.

Sometimes, you just say, I'm not going to worry about it. I will deny I have these problems and then deal with the consequences.

Or you look at the other side of this. Do you have the courage to really face these problems? Are you able to tap into your friendships to get the help you need? Do you have a sense of security? Or can you manage these issues? Do you have something that I certainly don't have, which is called patience?

(Chuckles).

Do you have confidence and do you feel secure to manage these problems? Do you feel relief that you are able to take control of this? Have you accepted that this is just a part of your life? Are you able to draw on your social support? Do you feel self-love?

Well, we decided -- I decided, you know this is my inspiration. I wanted to get from that first set of emotions to the second set of emotions, and I just didn't want to feel any more like I was the only woman dealing with these issues. And besides, over the last 30 years of doing this type of research, I was hearing from so many other women with disabilities who were saying the same thing. It wasn't just me. It's a wide spread problem. So we decided to really focus on this. Looking across the many years of doing research in the area, we found that women were very free to talk to us about sexuality issues. But, you know, when it came to bowel and bladder and menstrual issues, they were not so forthcoming to talk to us about it.

Well, very lately, I have been hearing this term a lot in the media, "pelvic health."
I wondered how this might relate to us. What is this? Everybody else is starting to talk about pelvic health. So being a highly trained academic researcher with 30 years of experience, I began this study by going right to Google!

(chuckles).

I typed in pelvic health and I came up with 5,190,000 results. So I'm not going crazy here. This is a hot topic. Pelvic health, what is it?

Among all of these millions and millions of entries, I started reading through some of them and I found out that most of these entries had to do with incontinence and physical therapy. I found one right here, in Houston, in our own backyard, it was about pelvic health and wellness. I said, oh man, this is what we need to be talking about. We need to talk about pelvic health and wellness. So as I read down, I found that it focuses on women suffering from pelvic disorders and sexual dysfunction.

I'm thinking, wait a minute, that's not talking about how you can promote your health, your pelvic health. It's talking about sexual dysfunction. And I'm thinking all this time, well, in my disability, I didn't really have sexual dysfunction. I want to learn how I can have the best health. I felt maybe they are not talking so much about health. So I did some more digging to find out what this is all about.

Well, in one piece of literature I found out that women age 50 to 79 who had their uterus, they haven't had a hysterectomy or anything, but in older ages, middle and upper age, 50 to 79, 41% of them had experienced a pelvic organ prolapse.

Now that refers -- when one of the organs of the pelvis, that can be the bladder, the rectum, or the uterus had actually protruded through and started to fall out -- literally fall through some of the muscles of the pelvis. You can imagine what kind of problems that will cause them. Look at that, 41% of older women are having these kinds of problems.

And in another article which is listed at the bottom of the slide, I found out that women age 20 and older, among them, 25%, that's one-quarter of women, adult women have one or more pelvic floor disorders. That is a phenomenally huge problem!

So I'm thinking wow, I'm wondering what this really means. I wonder where women with disabilities fit into this. And so we looked and looked and looked, we reviewed 4,000 articles. We only found a few studies, but nothing -- nothing has been done to gather statistics about women with SCI, spinal cord injury, which is the disability type that has the most research done on it, or any other disabling condition, no one has gathered statistics about pelvic health problems faced by women with disabilities.
Only a handful of articles have been written about case studies or individual women or very, very small groups of women that do any kind of research. Most of it has been just qualitative interviews about pelvic floor dysfunction or problems.

Now, I'm wondering why. Why has there been this total neglect of our issues when it comes to pelvic health and what is becoming a very popular and very hot topic for everybody else. Why are we, once again, left out of this whole area?

Well, I looked at the literature again and I came up with these risk factors of the pelvic floor disorders. Okay? Let's look at these. Higher body mass index. Yeah, well, I'm sorry to say that we do tend to have weight problems. Body mass index refers to being overweight or obese, and women with disabilities, especially those with mobility impairments, have a much higher rate of obesity and overweight. Greater parity. Parity refers to how many babies you have had. Well, we are about equal there. That's not quite as risky.

Hysterectomy, well, we've had more than our share of hysterectomies. We tend to be pushed into hysterectomies sometimes more than other reasons, sometimes not for medically necessary reasons. Vaginal delivery. The research is showing that we are about equal, for vaginal delivery, compared to other women, if you go across all disability types. Only women with more severe mobility impairments are pushed to have Caesarean sections.

And age. The older you are, there is more risk of having pelvic floor disorders, like the pie chart showed. And women with disabilities tend to be older. Out of these five risk factors, we have at least three of them, where we are higher or at more risk.

And then the symptoms, sensation of a lump or vaginal heaviness, recurrent irritating bladder symptoms, voiding difficulty, incontinence or difficulty defecating, low back or pelvic pain.

Most of these have to do with feeling. If they can't feel, they wouldn't even know that they have a problem. So I began to think that maybe we do have these problems but we don't know it or we are not talking about it.

Just like I said earlier, women are more willing to talk to us about sexuality than they are about their bowel and bladder problems. And so if they are not talking to us, their peers about the problem, might they also be less willing to talk to their physicians about these problems? Maybe the problem is not that the physicians are not noticing it or looking for it. I've had some physicians tell me that women don't complain about it. Well, maybe that's why.
I decided that we needed to redefine the term “pelvic health” so that it focuses on pelvic health! How can we overcome these problems? How can we deal with these problems in the context in which we live and then let's define it in a way that includes us?

So that's why we started the Pelvic Health Initiative for Women with Disabilities and with funding from the Christopher and Dana Reeve Foundation, we were able to set up our advisory groups and set up our website.

Our advisors came up with this definition. “Pelvic health is the best possible functioning and management of the bladder, bowel and reproductive organs. It's not merely the absence of disease or weakness in these organs. Pelvic health plays an important role in complete physical, mental, social, and sexual well-being.”

The point here is that we may, because of our disabilities, not have the best functioning but we can move beyond that and manage the problems that we have with our bowel, bladder, and reproductive organs, and that will affect how we function physically, mentally, socially and sexually in order to achieve the best well-being and quality of life.

So we have a conceptual model about all of this, and it's on our website. I encourage you to please go to our website and click on the link there for pelvic health and you will come across this diagram linking you to a really cool presentation using the Prezi platform, if any of you have heard that. It zooms in and out and it explains all the symbolism in this tree diagram. It's kind of fun to look at and to follow along about how we see all of this connecting together, from the roots, meaning the context within which we live, each branch represents bowel, bladder, reproductive health and then at the top are all the quality of life issues. And then those three pieces of fruit would symbolize the way we are getting this information out to all of you, by doing these webinars, by creating our website, and eventually we hope to produce more material for your information.

So through this webinar series and the supporting material on our website, we hope to provide solid information about pelvic health and women with disabilities, offer information and strategies that will improve the quality of pelvic healthcare for women with disabilities, and help women with disabilities develop the confidence and skills they need to achieve better pelvic health and quality of life.

And so I will turn it over now to Dr. Fletcher, who will give us a better explanation, more detailed explanation of the medical aspects of our pelvic health.

Dr. Fletcher?

>> SOPHIE FLETCHER: Yes, thank you. Can everyone hear me okay?
Okay. Good so what I want to do is go to here. I'm just pulling this up in slide show...for everyone

Perfect. Okay.

So what I'm going to talk about today is a carry off from where Peg gave us a great introduction and just zoom in a little bit more on the details of actually what bladder, bowel, and sexual health problems affect women, particularly women with mobility impairments.

>> RACHEL MARKLEY: Hey, Dr. Fletcher, I want to be sure. We are not seeing your screen. I did not know -- I wanted to make sure that you were not doing that on purpose. If we are supposed to be seeing it, we are not yet.

>> SOPHIE FLETCHER: Okay. Let me go back to the -- are you looking at the Blue Jeans screen?

>> RACHEL MARKLEY: Yes. I do not see your slides at all. There we go.

>> SOPHIE FLETCHER: That was better.

>> RACHEL MARKLEY: Thank you.

>> SOPHIE FLETCHER: Okay. I just have to put it back into slide show mode for you. How is that Rachel?

>> RACHEL MARKLEY: That is perfect.

>> SOPHIE FLETCHER: So here are the topics we are going to discuss. What exactly are pelvic floor disorders? We got a great introduction on that from Peg but we will move forward with that in more detail, including the different types of pelvic floor disorders, how common are they in different types of patients? How do I know if I have a pelvic floor disorder? And how are pelvic floor disorders diagnosed?

And finally, what are some treatments? This is really important to keep in mind because, although I may not be able, due to time constraints, to go into every single treatment for the disorders I'm going to discuss, there are treatments for everything and there are treatments for all different patient types, patients of every age, and patients who have mobility impairments as well.

So keep that in mind. There is help for all of these problems. Okay.
So disorders of the female pelvis. I will start off with disorders of the bladder because that's my primary specialty is urology. And the problems that we have with the bladder are very complex. The bladder is nestled in the front of the pelvis with the bowels, the uterus, the ovaries, and the vagina all surrounding it. I often tell my patients the bladder is an unfortunate bystander, an innocent bystander, when problems or normal functions occur with those other organs. And what are some of the things that happen with the bladder?

Well, the bladder can have trouble holding urine which is incontinence or loss of urine, and that's when urine loss occurs when you don't want it.

In addition, the patient can have over active bladder, meaning that the bladder doesn't hold the urine quietly. But as soon as there's a little urine in the bladder, it starts spasming and sending a message to the patient saying you have to go to the bathroom right now, it's urgent. And sometimes that urgency even results in loss of urine.

On the flip side the bladder can also not empty well. And we refer that to -- we refer to that as incomplete bladder emptying or urinary retention. You will see later in some of these slides that this can be a real problem with patients, we see it in mobility impairments, particularly with types of neurologic injury, but I also see it in patients of every age and other -- and of every gender as well.

And it is one of our most troubling problems that we have.

Finally, in the bladder category, I'm going to talk about urinary tract infections. I always get a lot of questions about urinary tract infections and that's because as you probably know if you have had one, they are very painful. And sometimes even the anxiety of one possibly getting a urinary tract infection can decrease one's quality of life.

In the bowel category, I'm going to talk about things that really bother my patients, once again, of all age and type. Constipation, fecal urgency which is an urgency to have a bowel movement, where you need to rush to the restroom with a panic and lots of anxiety, and then also fecal incontinence, which is where the bowel movement actually comes out as an accident. And you can imagine how embarrassing and how debilitating that can be. I will talk about that a little bit more.

And then as Peg was introducing, vagina and vaginal support when this support is lost, after having children or simply from age, we have what is called pelvic organ prolapse. And that's when any one of those organs that I mentioned before, the bladder, the uterus, or the bowels can prolapse or slip down into the vagina and start to come out. It wreaks a lot of havoc with the function of those organs and is very uncomfortable as
well. Luckily, I know it sounds horrifying, so luckily it's not as common as the bladder and the bowel problems but there's so much overlap between these three categories that I almost have to talk about all three of them together.

So let's talk about disorders of the bladder. Now, there are disorders of the bladder that impair quality of life, like I talked about. That feeling that you have to get to the bathroom all the time. We have a condition in urology called bathroom mapping. And that's when the patient -- where the person, wherever they go, whatever they are doing, they are always making a mental map of where the nearest bathroom is, to the point where any time you go out or want to socialize with friends, in the back of your mind, you are also wondering where is the nearest bathroom? It's very distracting.

And that is from having to urinate frequently, which is a part of overactive bladder. We also have, in that category, urinary urgency, urge incontinence is when you can't make it to the bathroom in time and you actually have an accident, and waking up frequently at night.

And as I mentioned before, urinary tract infections and bladder pain.

On the other side of the screen, you see that we have some disorders of the bladder that are actually life threatening and that's why if you think you have a problem with your bladder, it's important to see your doctor and mention it.

One of those, the first two bullet points there are incomplete emptying and urinary retention. We see those in all different kinds of patients but particularly in patients with neurologic illness, and the point here is that when you can't empty your bladder, urine stays there and can, in some cases, back up into your kidneys. And when urine backs up into the kidneys, it can cause kidney stones and kidney infections, which are very severe, and sometimes kidney demise or kidney failure.

And the last bullet point in that category is high pressure voiding. Once again, if you are trying to squeeze out urine but you can't, that pressure backs up into the kidneys and it can cause kidney failure and this can be life threatening over time.

So what are the types of incontinence? Well, when you leak urine, you either leak urine because the opening of your bladder is not strong enough and that's called stress incontinence. It's not because you are stressed out and you leak urine, it's because there's stress to the sphincter of your bladder and it fails you. Or urge incontinence, when your bladder is spasming, sending you to the restroom urgently but you cannot make it in time. And then there's mixed incontinence where unfortunately you can have a combination of one and two, both stress and urge incontinence.
So just as a review, stress incontinence is a sudden, involuntary loss of urine associated with an increase in intra-abdominal pressure, meaning something sudden like a cough or a sneeze or a laugh, lifting something heavy or bending down to pick something up, stepping off a curb or being surprised, for example. Another very good example is transferring from one's wheelchair to a bed or another seat.

And that pressure that is applied on the bladder overcomes the strength of the sphincter and it lets a little bit of urine leak out.

Urge incontinence, is more common with those with neurogenic problems like neurologic illnesses. The overwhelming urge to urinate results in leakage and it's from unintended bladder muscle activity. In other words your bladder is created to squeeze urine out when you go to the rest room. But urge incontinence is when the bladder decides it will squeeze before you get to the rest room.

So it’s often referred to as loss of control or the bladder has a mind of its own. There are several neurological conditions associated with urinary incontinence, and the most common are spinal cord injury, multiple sclerosis, stroke, neuropathy, spina bifida, transverse myelitis, and CIPD, but we see urinary incontinence in women without neurologic problems as well.

There are other medical conditions that worsen incontinence. If you start to have it from age or from a neurologic condition or simply an impairment of mobility, other health conditions seen in those patients will worsen your incontinence. And those include diabetes, obesity, increased intra-abdominal pressure. Now what would be an example of induced intra-abdominal pressure? That is if you have a chronic cough. And that chronic cough could be from asthma or from smoking, for example.

There are studies that show that a chronic cough can worsen your incontinence.

Diuretic medications or water pills like Lasik, those make you produce more urine, making it harder for your bladder to hold volumes. Constipation. Remember, I mentioned that the bladder is an innocent bystander, and if there's something not right with the bowels, such as constipation, if they are filled with hard stool and gas, they push on the bladder and irritate it and make it more difficult for the bladder to hold urine.

Vaginal atrophy is a condition that occurs after menopause where the vaginal tissues get very dry and that dryness irritates the base of the bladder and the opening of the bladder and causes over active bladder as well.

Next slide.
Okay. So how do we treat incomplete emptying? Remember, I said that was one of the serious problems. The most important thing is to empty your bladder at regular intervals and at low pressure, okay? And if that can't be done, if the patient can't do that on their own, then we recommend indwelling catheters, but not for women, okay?

Sometimes for men for limited periods of time but not for women, because a chronic catheter in the urethra can cause chronic infections and can wear away at the opening of the bladder and cause a serious condition called bladder neck erosion and then urine will just spill out all over the place.

So in 1977, a gentleman in urology created or devised a system called Clean Intermittent Catheterization, and that's where a patient, caregiver, or family can learn how to pass a catheter in and out every four hours to empty the bladder completely. This is life saving for patients. It's not as bad as you think, and it's really doable.

I put this slide first because if one is not emptying their bladder, this would be the first treatment that the doctor will recommend. Then we can talk about treatments for incontinence.

So treatments for overactive bladder, like urinary urgency, urge incontinence, we always ask patients to try a little self-care. I call it self-care, but other doctors call it behavioral modification. We ask you to avoid things that irritate the bladder like coffee, tea, and citrus juices. Make sure you empty your bladder correctly on time, always emptying completely. And then we have excellent physical therapists as Peg mentioned earlier here in Houston -- or there in Houston, Texas, there's an excellent bladder physical therapy group with biofeedback training where they can teach you how to suppress urge and hold your bladder longer.

And there are medications you can take on a daily basis, but the medications do cause side effects, most commonly dry eyes and dry mouth. However, it's nice to know that there are options without having to move on to a big surgery.

Second line treatments include neuromodulation, which is an amazing new -- well, not new, but a more later down the line technique that's come up, where we can provide a little low level electrical stimulation to nerves that operate the bladder, and help it operate correctly, and then down there at the bottom, it says botulinum toxin injections which is Botox injections into the bladder. Many patients who have mobility impairments get Botox injections into different muscles of the body that are in spasm. Botox injections are used for migraine headaches. They are used for TMJ, which is grinding and clenching of the teeth. And we also use it for overactive bladder to reduce bladder spasms and help you hold your bladder -- your urine longer.
The point of this slide is not to remember all of the treatments but just to know that there's a wide range of treatments. And once your doctor can narrow down the problems that you are having with your bladder, they can offer these treatments for you.

All right. Now let's talk about urinary tract infections. This is a very, very common problem in women, especially women with impairments of mobility, and even more over in women with neurologic problems. And I mentioned that group, particularly because it's more difficult for those women to empty their bladders. So they are frequently passing catheters and that puts them at higher risk for infection.

Nothing that can't be overcome, but it is another thing to worry about.

Urinary tract infections are 30 times more common in all women as opposed to men. So just by being a woman, you are already, you know, running behind in the game there.

Immobility is a risk for urinary tract infections because of constant sitting and moisture to the area of the vagina and the bladder and as I mentioned, many women with impairments of mobility have neurologic diagnoses, so many have incomplete bladder emptying. I would like to add here that any woman that is also postmenopausal, either from a surgery where the uterus and the ovaries were removed, or from natural menopause with age, that is also a risk factor for getting urinary tract infections.

And why? Why is this such a problem for us?

Well, it's because of the anatomy of the female pelvic floor. Once again, we are talking about pelvic floor health and pelvic health disorders so it's all going to come back to that. The bladder and the opening of the bladder are very close to the rectum and the opening of the bladder, which is called the urethra, is right in the vaginal area.

There are microbes, which is a fancy word for germs, that move from the rectum in and out of the vagina and towards the urethra all the time, every single minute of the day, and you can't wash them away. It's part of your natural anatomy and over washing is not a good idea in the vagina anyway.

And one of the things that you will note -- that you probably noticed if you have a lot of urinary tract infections, is that the most common microbe or germ that causes those infections is escherichia or e. coli. And the reason for that, it's a very common bug that comes from around our rectum.

Now, once again, over washing or wiping or cleaning is not going to solve the problem. It's a natural microbe that lives on us and we have to learn how to coexist with it, if it's causing problems, there are things we can do, and I will tell you how.
Now patients who are at risk are those who have a previous history of urinary tract infections. For some reason, there are some patients who are just more prone than others. Sexually active women, post-menopausal women, women with voiding dysfunctions, once again, women who have trouble emptying their bladders, women who have anatomical abnormalities. So if there's a change in the anatomy of the vagina. Women who use catheters, those with neurogenic bladder and those with diabetes and any kind of kidney dysfunction.

Now, I don't know about you, but after I go through that list, that pretty much tags every woman that I know.

So what are the treatments? So what you really want to keep in mind here is that we want to treat the patient, not the laboratory values. It's very, very important to make sure that you get a lab test showing the bacteria in your urine, but you also want to have a discourse with your doctor and let them know the symptoms that are occurring and the frequency that they are occurring. And many times my patients will call a doctor's office and say, I think I have a urinary tract infection and the doctor will say, okay. Go to the lab. Or okay. Go to the pharmacy. I called in some antibiotics for you.

Maybe once or twice this might be okay, but if there's a pattern of urinary tract infections that's just not acceptable. It's important to let your doctor know or for your doctor to have a discussion with you about what is a UTI. If you think you have a UTI, what are the actual symptoms you are having? Let's talk about this. Don't just go to the lab or come -- or take antibiotics because there could also be something else going on.

And treating with antibiotics is not always beneficial. Certainly if there's not an infection, you don't want to be taking them. But patients who use catheters have bacteria that lives in the bladder and it doesn’t always help just to keep throwing antibiotics at them. Once again, this is a conversation that you need to have with your doctor.

Of course, it's pretty well known now among most people that if you take antibiotics chronically, meaning many times over long periods of time, that causes bacterial resistance. The bacteria becomes resistant to the antibiotics and they won't work when future infections come along. It's very important to only use antibiotics when you need them.

And that includes using antibiotics as a prevention. I really recommend that antibiotics are not used for prevention. I'm going to give some tips here for ways to prevent urinary tract infections to keep antibiotics as the last resort for prevention.

So you want to prevent reinfection. Okay? It's really important. You will be happier and
healthier if you prevent the infections from happening rather than just treating them when they occur. You will spend less time and money on doctor’s visits and antibiotics. You have less antibiotic side effects and once again, you will not fall into that trap of promoting resistance among the bugs.

So here are symptoms. If you use a catheter to empty your bladder, you will always have bacteria in your urine. So you want to make sure you know the symptoms of an infection and those include burning with urination. Does the urine burn as it's passing from your bladder or as you are passing the catheter? Do you have new frequency or bladder spasms? Are you experiencing fever or pain in your flanks, which is the area of your kidneys? Those are important symptoms to mention to your doctor.

Frequently women will complain of dark urine, and/or urine that's cloudy or has a foul odor. Believe it or not, I'm going to dispel a huge myth here. Those are not signs of a urinary tract infection. They can occur with urinary tract infections but they don't mean you have one. So don't take antibiotics or treat yourself if you just have dark urine, cloudy urine, or foul smelling urine. Most likely it means you just are not drinking enough water.

So let's talk about prevention. It's really important to monitor your urine cultures. If you think you are getting a UTI, get a lab test after you talk to your doctor and ask your doctor for a lab test. That way you can see if there's really bacteria in the urine.

You may not be having urinary tract infections at all, and you may be looking at something completely different going on. If you are, picking up good habits like regular hygiene but not over washing. You need to scrub or use wipes in the vagina. Make sure you bathe regularly. You want to void regularly and empty your bladder completely. Avoid moisture in the perineum as much as possible.

I know this is difficult. If there are times when you can stand or lie down and get air to the area of the vagina and the rectum, it will go a long way to prevent urinary tract infections. Make sure you drink a lot of water. Keeping well hydrated is important.

I recommend that you drink six to eight, 8-ounce glasses of water a day.

Atrophic vaginitis, or vaginal atrophy is dryness in the vaginal canal it occurs with menopause. Not only does the area become dry and irritated, it cause problems with the bladder and the opening of the bladder but it also changes the conditions in the vagina where the bacteria grow and sadly, it makes those conditions better for bad bacteria, like e. coli.

What we found is that if you use a small amount of medicated cream on a regular basis,
medicated cream is applied to the vagina, it can moisturize the vaginal walls, reduce the dryness and irritation, and change the atmosphere of the vagina so that good bacteria will grow there as well as bad bacteria.

And that medicated cream is -- there are two different ones and there are some other products but the most commonly used ones are Premarin and Estrace cream. They do have a tiny bit of Premarin or estrogen, but for the most part that hormone doesn't go into your body. It just stays on the skin of the vagina, and works its therapeutic benefit there. So it's not like taking a hormone. It's just using a hormone cream for the vagina.

The other thing you want to do is combat constipation and fecal incontinence, and this is really difficult, I know, because my patients battle with it all the time.

There are very good strategies for the management of constipation and fecal incontinence that don't involve medications, prescription medications and don't involve surgeries.

We do have surgeries and prescriptions, medications available, but you can combat these things on your own at home with some really good tips.

And we'll make some of those available as handouts on the CROWD website.

Fiber supplements are incredible. I can't speak highly enough about them. I think a lot of people try them, but then give up because they don't see results right away. A fiber supplement is something that you will really have to stick with on a daily basis. And I have some suggestions in another slide.

I also highly recommend a probiotic, probiotics are becoming more and more popular. If you have urinary tract infections, I recommend a probiotic for bowel and bladder health. And these are very easy to find. You just want to make sure that there's bladder health as part of it. You can find them at any health food store or whole foods market, for example.

And then I highly recommend a UTI prevention supplement. I want to talk a little bit. What is a UTI prevention supplement? Well, as the name suggests, it's a supplement. So it's not a medication that we prescribe for you. It's an all-natural product that works for you, like a vitamin or a fiber supplement. And what we have noticed over the years is -- or I would say maybe perhaps even centuries, is that there are certain fruits that can prevent urinary tract infections, and help you feel better if you get them frequently. One of those is the cranberry. There's also others though, like blueberries, for example.

And what we just haven't been able to figure out until recently is how much of those fruits
do you have to drink or eat to assuredly prevent a urinary tract infection?

And due to some excellent research that came out of Rutgers University, we now know not only how much of that you need to take, but what is it about those fruits and what is the active ingredient that's preventing a bacterial infection in your bladder?

And that molecule is called a proanthocyanidins. And I'll show you how it works.

This is a look of the bladder and the green spider looking things are bacteria. We have bacteria that move in and out of our bladders all the time and usually they get flushed out when you urinate. You see the ones sort of underwater there? Those guys are going to get flushed out when this person urinates, but if you are prone to urinary tract infections and a lot of bacteria is getting up into your bladder, those little spider-like arms are going to cling to the bladder like little stickers and they are going to stick on there even when you urinate and then those bacteria are going to multiply and cause an infection.

Imagine if you will.

>> RACHEL MARKLEY: We have about eight minutes left. I know we wanted to allow a couple of minutes for questions.

>> SOPHIE FLETCHER: Is it eight minutes and then questions?

>> RACHEL MARKLEY: No, we have eight minutes until the top of the hour.

>> SOPHIE FLETCHER: Oh, so what this molecule does, is it attaches to the bacteria’s harmful claws, stickers and prevent it’s from sticking to the urinary tract wall. So that the next time you urinate, the bacteria will be flushed out.

So the primary goals of bladder health management are preserve kidney function, prevent urinary tract infections, and improve quality of life.

Now, I did already talk a lot about bowel health. And also Peg talked about it in her wonderful introduction. The same risk factors for urinary incontinence apply to bowel health as well.

And as I mentioned, I cannot speak highly enough for fiber supplements and persistent, fastidious use of fiber supplements when it comes to constipation. It will make a difference in your bladder and bowel health. These slides and other recommendations will be available to you on the CROWD website for future reference.

I mentioned that we have some very nice self-care techniques for avoiding bowel
urgency and loss of bowel contents which is an accident that can be very upsetting and embarrassing.

And these suggestions are here.

There's also different types of expulsion therapy, where you empty your bowels before you leave the home or go on an activity and once again, there are surgeries that we can do to help if the self-care isn't enough to help out. Don't feel like your doctor can't help you with this.

And then I wanted to say a short bit on sexual health. You know, as Peg mentioned, all of pelvic health is associated with overall health and sexual activity is an important part of that.

And it remains an important aspect of our quality of life, even until later age.

So it's really, really important to ask your doctor about sex and if you have any sexual history that should be discussed, please mention it to your doctor. That would be dyspareunia which is pain with sexual activity, and history of sexual abuse, sexually transmitted diseases, or any previous treatment you may have received for your sexual health.

Again, I know I'm sounding repetitive, but I just want to drive home that we do have treatments for sexual disorders in patients with mobility impairment. There are many things we can do. So you just need guidance here and the medical establishment can help you. Don't feel like this is something that you have to keep to yourself.

So in conclusion, pelvic floor disorders are prevalent, meaning we see them, and they represent a significant quality of life impairment for all women. Women with mobility impairments suffer from pelvic disorders, just like all women. And the place to start is to ask your primary doctor for a referral to either a urologist who specializes in neurogenic bladder or a colon and rectal specialist who specializes in neurogenic bowel or a gynecologist who is helpful for women or finds a place in their practice to help women with mobility impairments. I know for a fact that they all exist in Houston and other cities as well.

All right, I will mention the questions really quick and then if there are any others, of course, we can address them.

These are questions that I got prior to the webinar. So I was able to put them on slides. And one of our attendees asked: Is there a greater risk for getting urinary tract infections before or after intercourse with women 50 plus? If so what herbal remedies and/or
supplements can be taken for prevention besides cranberry?

Excellent question. Yes. UTIs are much more common after menopause. Menopause is when the ovaries slow down their production of estrogen. That dries out the vagina. It reduces your ability to resist that bacteria from getting into the bladder, and attaching to the lining of the bladder.

You need all of the self-care strategies you can get to keep that bacteria out -- flushing out of the bladder. So all the regular UTI prevention that we mentioned, but particularly before and after intercourse, I recommend the supplement that I talked about, a UTI prevention supplement that has the extract proanthocyanidin and you want 36 milligrams. To my knowledge, there are only a couple of products in the US that have that true extract but I do know that -- let me see if I can get this here. This is just one of them. I like their art work. So I put it on my slide. The name is right here, it's called Ellura. You can find their products on www.myellura.com. And the important thing here is that it has the extract that will prevent the bacteria, particularly around sexual intercourse, you want to take two capsules before and two capsules the day after. And all of that information is on their website.

So one more question. How do we counsel women regarding pelvic health when they are young girls with mobility impairments? Well, I hope that some parts of this presentation have helped, but the next webinar that will be presented by Dr. Ellen Fremion is going to specifically address transitioning children to adolescents, and then adult life, those children who have disorders of mobility impairment. So I do encourage you to log in and register for her webinar.

One more question. Do we have time for one more, Rachel?

>> RACHEL MARKLEY: I was just going to say we have about one minute left. I was going to remind everyone that these slides are already up and available. And so Dr. Fletcher's answer, I believe, is in here and if not, we can always forward it, if you are okay with that, we can forward you her information and she can answer you as well.

So like I said, slides are up already. And the recording will be up soon and that will be at www.bcm.edu/CROWD. If you have any further questions, you can call us at 832-819-0232. Or you can email us at CROWD@bcm.edu. We would love to thank both of our presenters for sharing their time and knowledge with us. You will receive a link, I believe, Dr. Fletcher I saw it pop up on her screen, to an evaluation survey via email. It should have already come through if you registered before noon.

If not, I will get it to you as soon as possible.
We would love if you would help us to improve our webinars and to help us identify future topics by taking this survey. Thank you so much, everyone, for your time and enjoy the rest of your afternoon.