

**MINIMALLY INVASIVE PENILE IMPLANT SURGERY
CORAL GABLES HOSPITAL
CORAL GABLES, FLORIDA
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ANNOUNCER: Over the next hour you'll see a live panel discussion of penile implant surgery. For men with severe erectile dysfunction, the condition generally cannot be treated by popular pills such as Viagra or Cialis. The inflatable penile prosthesis consists of two cylinders, a reservoir, and pump, which are placed in the body during surgery. To inflate the prosthesis, the man just presses on the pump. The pump transfers fluid from the reservoir to the cylinders in the penis, inflating them. This offers patients the chance to return to a normal sex life and has been an excellent treatment for hundreds of thousands of men for the past 20 years. OR-Live makes it easy for you to learn more. Just click on the "request information" button on your webcast screen and open the door to informed medical care. Now let's join the surgeons.

00:01:11

IRWIN GOLDSTEIN, MD: Hello, and welcome from sunny Florida. We are live in the Coral Gables Hospital in beautiful Coral Gables, Florida. My name is Irwin Goldstein. I am Director, San Diego Sexual Medicine at Alvarado, San Diego, California. I am Editor-in-Chief of the *Journal of Sexual Medicine*. I've been involved in penile implant surgery for the last 35 years, since the initial U.S. experience in the early 1970s. Today we are thrilled to have two contemporary experts in penile implant surgery for the treatment of men with erectile dysfunction. While technically the initial concept is still the same – that is, placement of a penile prosthetic device in the two erection chambers of the corpora cavernosa of the penis – these two experts have advanced the surgery by using new, minimally invasive surgical techniques. Such techniques potentially reduce the infection—the opportunity for infection, the most feared penile prosthetic complication. On my immediate left is Dr. Francois Eid, clinical associate professor of urology at the Weill Cornell Medical College and urologist at the New York-Presbyterian Hospital. Welcome, Dr. Eid.

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J. FRANCOIS EID, MD: Thank you.

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IRWIN GOLDSTEIN, MD: And on my far left is Dr. Paul Perito, chairman of the department of urology right here at Coral Gables Hospital in Coral Gables, Florida. Welcome, Paul.

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PAUL PERITO, MD: Thank you very much.

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IRWIN GOLDSTEIN, MD: Welcome, gentlemen. It is indeed an honor to have you here today – to have you here today. Let's start with Dr. Francois Eid.

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J. FRANCOIS EID, MD: Thank you very much, Dr. Goldstein. Indeed it's a pleasure for me to be here and to be speaking about what I believe is the best option for men who fail oral therapy for the treatment of erectile dysfunction. I'd like to begin by giving you some information on why I came up with the technique of the "no-touch" technique.

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IRWIN GOLDSTEIN, MD: This is your tooth story.

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J. FRANCOIS EID, MD: Exactly. And it was – as you know -- I'm going to click to the next slide, and that is the slide on the infection prevention. And as you know, one of the issues with penile implants in the past was the concept of getting infected after the device has been placed. And when you look at the bacteria that infect these devices, you can see that this is a data on over 2,000 implants that were removed for infection from 1992 to year 2000. You can see that 63% of the infections occur with staphylococcus epidermis or staphylococcus aureus, and another 11% with candida, a fungus that is on the patient's skin. So 75% of all the agents that infect the devices are caused by bacteria that are on the skin. Furthermore, the fungi are not affected by antibiotics. So I started thinking about how I could avoid touching the skin, and I thought if we could avoid touching the skin, maybe we could have this treatment option be completely risk-less.

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IRWIN GOLDSTEIN, MD: So how does the tooth come in?

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J. FRANCOIS EID, MD: So – so what happened is I'm sitting there, Irwin, I'm getting a root canal at a dentist, and the dentist comes over to my tooth and he puts a dam in my mouth. And I wave, I say, "Stop, stop. Can I see this?" And I look on the mirror, and indeed, the only thing that I could see was one tooth. I don't know if you ever had the unfortunate experience of getting a root canal, but what they do is they put one tooth through a little rubber dam and then they work through that hole and they isolate the rest of the mouth. And I said to myself, "Well, gee, if we could do that for penile implants, maybe we'll decrease our infection rates." And I started looking at what is the source of infection, and looking at the literature it is clear that it is the patient's skin. Also the urethra, especially the distal aspect of the urethra, is never fully clean. You can't clean the inside of the urethra. So there's always some bacteria that is going to be remaining in that area. Furthermore, we know that the mechanism of infection involves the attachment of the bacteria to the device, so we wanted to create a device that prevents the attachment of the bacteria. And I think the Coloplast with the lubricious coating of the –

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IRWIN GOLDSTEIN, MD: The hydrophilic –

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J. FRANCOIS EID, MD: The hydrophilic coating, which we will talk about later on, has provided for this defense. In infection prevention, therefore, we prepare the patient before the surgery, we give antibiotics, we prepare the skin, we isolate the urethral catheter, we want to do it through small incision. Doing it quickly is also extremely important. Being meticulous in order not to have blood all over the place, because as you know, blood is a wonderful growth medium for bacteria, so any bacteria that has gone in during the surgery will cause an infection. Keeping the dissection to a minimum so that we have very few necrotic tissue. To all of these techniques I've added the no-touch technique that I will illustrate in the video clip.

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IRWIN GOLDSTEIN, MD: So why don't we run the video?

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J. FRANCOIS EID, MD: So why don't we run the video.

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IRWIN GOLDSTEIN, MD: So the no-touch technique is literally not touching – the device not touching the skin.

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J. FRANCOIS EID, MD: Yeah. And here we're just showing that the preferred anesthesia is what we call a regional anesthesia. It's a spinal anesthesia very similar to the one ladies have when they have babies, like an epidural. The wonderful thing about this type of

anesthesia is that patients have prolonged relief of pain, even after the procedure is done, and they can actually walk and go home. We're –

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IRWIN GOLDSTEIN, MD: Let me ask Paul one second while you're watching the video roll, do you have a different preparation or does your prep pretty much the same?

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PAUL PERITO, MD: Our prep is only using hypocleanse.

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IRWIN GOLDSTEIN, MD: Do you have the bend in the table any different?

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PAUL PERITO, MD: We like to have the table flexed because, especially if a patient is obese and has a very large pannus, it allows me to get better measurements if I can get that pannus out of the way.

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IRWIN GOLDSTEIN, MD: Yours is the infrapubic approach and yours is the scrotal approach?

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PAUL PERITO, MD: Why don't you cont—why don't carry on?

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J. FRANCOIS EID, MD: And what we're doing here is, after a surgical wash we're bathing the patient in 70% alcohol. All the newest agent for cleaning the hands, the everguard in the OR, are 60% alcohol. And the reason is, is that that's the best option for killing skin flora. This is a final prep for the – prior to starting the procedure. All this is just to illustrate that prepping the skin is of vital importance.

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IRWIN GOLDSTEIN, MD: Now, you use alcohol because alcohol has the best chance.

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J. FRANCOIS EID, MD: The best chance. You know, there are charts that are provided by the 3M that actually shows that alcohol is the best for staph. We're draping the patient, again, without allowing contact of the surgeon's glove with the skin. So you see, even though the skin is prepped, we consider the skin to be contaminated.

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IRWIN GOLDSTEIN, MD: I'm taking email calls while we're doing this, so I have one email that says, "What is the indication for a patient to get an implant?"

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J. FRANCOIS EID, MD: Well, I believe an indication is any patient who has organic erectile dysfunction and who fails treatment with PD5 inhibitors such as Viagra, Levitra, or Cialis.

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IRWIN GOLDSTEIN, MD: So ideally this person has gone through that kind of treatment.

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J. FRANCOIS EID, MD: Exactly. So every patient, we try the pills. If they don't work, this is their best option. In my opinion, this is their best option. Now, there are other options, and they may want to try them, but it is – undoubtedly this is the best option for them.

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IRWIN GOLDSTEIN, MD: And what drape was just placed there?

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J. FRANCOIS EID, MD: This is a Vi-Drape, which we place over the entire field. It will protect the device from lint, from the – all the drapes. We deliver the penis -- This is the first time that we're actually touching skin at this point, and we will deliver the scrotum and the penis through this small fenestration, and then with the same contaminated – or what I believe are the contaminated gloves, we'll put in a Foley catheter and then we will proceed to making an opening, an incision in the skin. We're changing our gloves. Now, we changed our gloves. It's really – it's a high-scroll **[sp?]** incision, Dr. Goldstein, so we avoid any cuts on the penis. We bring the incision up towards the urethra and then we will actually cut over

the urethra. And the idea – the strategy here is to spread the tissues apart so that we cut the minimal amount of tissue between the skin and the penis. We want to get to the penis in the shortest possible distance, and the reason for that is to avoid traumatizing the tissues. We have decreased swelling after the surgery is done, decreased pain, and patients feel much better about it.

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IRWIN GOLDSTEIN, MD: So Paul, do you subscribe to minimal invasive techniques that you're watching here?

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PAUL PERITO, MD: I truly believe that the less dissection you do, the quicker the patient is back to normal.

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IRWIN GOLDSTEIN, MD: So less is more here?

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PAUL PERITO, MD: Less is definitely more.

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J. FRANCOIS EID, MD: We're – we're continuing on a straight line towards the urethra, and when we will get to a layer right above what we call Buck's fascia, we will stop, and at this point we will put five yellow hooks to do our retraction.

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IRWIN GOLDSTEIN, MD: So I have another question. May I interrupt, Dr. Eid?

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J. FRANCOIS EID, MD: Absolutely.

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IRWIN GOLDSTEIN, MD: What does the implant feel like, and can the patient still ejaculate?

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J. FRANCOIS EID, MD: Well, the beauty about this treatment option is that the patients feel normal, and that's what we try to do. We try to make the patient feel normal. Patient are – have complete sensation, they have orgasm. Patients who are diabetics, for example, will still have an ejaculation with orgasm. Patients who have had prostate cancer surgery, they will lose their ability to ejaculate, but they'll still have full sensation and orgasm. We've had patients, for example, who had their bladder or prostate seminal vesicles removed, and these patients –

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IRWIN GOLDSTEIN, MD: Cancerous?

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J. FRANCOIS EID, MD: After cancer surgery, and these patients are able to have two orgasms each time they make love. Here you see me changing gloves. We will do that throughout the case.

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IRWIN GOLDSTEIN, MD: You have three pair of gloves on.

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J. FRANCOIS EID, MD: We start with three pairs, and after the Foley goes in we're down to two. And this is the 3M 10 x 12 drape that is being deployed over the field. My assistant here will have not touched the skin either. And you can see we don't have any instruments right now, no suction catheter or Bovie; everything is brought in fresh. So everything that you see on the field now has never ever come into contact with skin. So technically, all this stuff should be completely sterile.

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IRWIN GOLDSTEIN, MD: So Dr. Eid, in the 70s the originator of the implant, Dr. Scott, did his surgery through a bubble to prevent infection, or to help prevent infection, and you have a different approach. Why don't you just tell us the principal difference.

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J. FRANCOIS EID, MD: Well, I think the principal difference is when we started getting the data from Coloplast showing that the 70% of the infections were caused from skin flora. And so we started thinking, "Well, you know, it's not the bacteria in the air, it's not the bacteria from workers going in and out of the operating room that actually infects the device, it's not the bacteria from dirty instruments because the instruments are sterile, it is bacteria from the skin."

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IRWIN GOLDSTEIN, MD: So you have a slide of an old technical way of doing this where in fact the device touched the skin?

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J. FRANCOIS EID, MD: Yes, I do. And this illustrated a device going into the patient, and this is the way I used to do it three years ago. I used to –

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IRWIN GOLDSTEIN, MD: Well, that's the way everybody does it.

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J. FRANCOIS EID, MD: to – and it's an acceptable way. It's still a valid, successful way of doing it, but it allows contact of the device with the skin, and potentially this could be a source of infection. Now, there are other factors that come into play, but if this – for example, if the patient has a little collection of blood around the device and the device has bacteria on it, then the collection of blood will promote the growth of bacteria.

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IRWIN GOLDSTEIN, MD: What are you doing here in the video?

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J. FRANCOIS EID, MD: So what we're doing – at this point we're isolating the right side of the penis. Once we've isolated, we tag it with stay sutures. We use straight clamps on the right side and we will tag the left with curved clamps. And here we are – we're approaching the left side of the penis through the right side. This will allow for a vest-over-pants closure. And the idea, Dr. Goldstein, is to completely bury all of the tubing so that the patient nor the patient's partner will ever feel any tubing, any anything. I had a patient, for example, that came back seven years later to have his device inspected. And I asked him, I says, "How does your partner like it?" And he said to me, "She doesn't even know I have one."

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IRWIN GOLDSTEIN, MD: She doesn't know.

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J. FRANCOIS EID, MD: She doesn't know.

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IRWIN GOLDSTEIN, MD: So Paul, here's a message from another email. And it says, "Is the procedure covered by Medicare?"

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PAUL PERITO, MD: Yes, it is.

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IRWIN GOLDSTEIN, MD: Okay. That is pretty straightforward.

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PAUL PERITO, MD: Straightforward.

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IRWIN GOLDSTEIN, MD: Where are we now, Dr. Eid?

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J. FRANCOIS EID, MD: It's covered by most insurances. This is the beauty of it. And so it's a well accepted treatment option. It's been around for over 30 years. It was invented in 1973. This is – we're doing the right side, basically a mirror image of the correction to the left side, and we're going to tag the area in the penis through which we will put in the prosthesis on the patient's left side.

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IRWIN GOLDSTEIN, MD: And that is the lining of the erection material?

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J. FRANCOIS EID, MD: Exactly. That's the lining of the corpora of the penis, or what we refer to as the tunica albuginea of the left corpora. Now, we tried to go as low as possible in the base of the penis. There is a little tube that's going to come out of there that's going to connect to a pump, and we want to make sure that that tubing is, again, completely buried deep in the scrotum.

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IRWIN GOLDSTEIN, MD: Will that allow you also to get a larger size cylinder?

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J. FRANCOIS EID, MD: Larger size cylinder, which will give the patient a better erection.

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IRWIN GOLDSTEIN, MD: Why would it be better?

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J. FRANCOIS EID, MD: Well, the cylinder has a portion that is not inflatable, and we want to limit that portion to the smallest amount proportion of the cylinder. So if a cylinder is 18 cm, we want to put a 18-cm device in the patient.

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IRWIN GOLDSTEIN, MD: Okay. [Inaudible] a wider penis?

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J. FRANCOIS EID, MD: A wider penis and a stiffer penis.

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IRWIN GOLDSTEIN, MD: What are you doing here?

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J. FRANCOIS EID, MD: So we've dilated the base of the penis and we're measuring to get an initial measurement, and we will measure both proximally towards the base, and now this is a distal measurement. And the distal measurement is basically the surgeon – I stretch the penis and make a measurement.

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IRWIN GOLDSTEIN, MD: So here you're touching the penis, but you're not really touching the penis.

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J. FRANCOIS EID, MD: Exactly. The drape allows one to touch the penis and feel for the tools inside the penis without touching the skin.

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IRWIN GOLDSTEIN, MD: That's very clever. That's very unique. Actually, here's another message. This will get right to it there. How many specialists are doing penile prosthesis cases in the United States?

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J. FRANCOIS EID, MD: I believe the number of physicians who only do penile implants, like Dr. Greiner [sp?] and myself, is quite small.

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PAUL PERITO, MD: The last I heard, 80% of all implants are placed by 10 guys across the country.

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IRWIN GOLDSTEIN, MD: Wow. That's awesome.

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J. FRANCOIS EID, MD: Yeah.

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IRWIN GOLDSTEIN, MD: So congratulations to the both of you.

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J. FRANCOIS EID, MD: We're dilating the proximal aspect of the penis. We use a suction dilator. This is – it is blunt and avoids any perforation of the tunica albuginea. And here we

will dilate distally towards the head of the penis using a blunt, long Mayo scissors. It's important to do the dilation between the tunica albuginea and the muscle of the penis. We try to preserve as much muscle – several patients will report partial erections when they get aroused –

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IRWIN GOLDSTEIN, MD: So they can maintain.

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J. FRANCOIS EID, MD: Around a cylinder, so patients continue to have some erectile disability. Some patients will be able to feel that they're getting aroused with a penile prosthesis.

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IRWIN GOLDSTEIN, MD: So Dr. Eid and Dr. Perito, how many do you do a year of these?

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J. FRANCOIS EID, MD: I do between 250 to 300 a year.

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IRWIN GOLDSTEIN, MD: And Paul?

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PAUL PERITO, MD: Between 200 and 300 a year.

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IRWIN GOLDSTEIN, MD: Wow, that's fantastic. Okay, another question. The success rate of the inflatable penile prosthesis.

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J. FRANCOIS EID, MD: The inflatable penile prosthesis is probably one of the most successful device in the history of medicine. These devices are indestructible the way they're built now. The great thing about the device is that although it was invented in 1973, it is basically the same model that's been improved and improved and improved, so really reverse engineering was used to optimize the longevity of these devices.

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IRWIN GOLDSTEIN, MD: Where are you now?

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J. FRANCOIS EID, MD: What we're doing now is we're – we're threading a string that is going to allow us to actually slip the prosthesis through the tight, small opening. We're dilating the penis hydraulically. This allows us to get an idea of how big the penis is before putting the implant. We do a final dilation to 14 French. Here's the rear of the implant went in. We're making sure that it sits all the way towards the base of the penis. Notice from the slide that you can see here on the slide that the implant, the pump is never touching the skin, as you see.

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IRWIN GOLDSTEIN, MD: Yeah, I think that's very exciting. I think that's very unique.

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J. FRANCOIS EID, MD: And now, if you saw, I got a sense of the size of the cylinder by putting it next to the penis outside the penis. If I'm not happy with the size, I can just take the back out and adjust that before the whole prosthesis is placed. I believe that taking the cylinder in and out of the penis will increase your infection rate, so you really want to get it in there once and that's it. You never want to have to take it out.

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IRWIN GOLDSTEIN, MD: I think, Paul, you would agree with that?

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PAUL PERITO, MD: Absolutely.

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J. FRANCOIS EID, MD: And the same thing with the instruments. You know, we want to minimize the amount of time that we actually go inside the patient's penis.

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IRWIN GOLDSTEIN, MD: So someone has a question here, and it says, "Patient with inflatable penile prosthesis since 1992 but now needs revision." Is this a problem?

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J. FRANCOIS EID, MD: It's not a problem. There are a lot of great options, and revisions are often easier than the first time, and it's quite easy to do.

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PAUL PERITO, MD: I find that revisions are much easier because it can take a few steps away from your procedure. So he shouldn't be at all afraid.

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IRWIN GOLDSTEIN, MD: Okay. Where are you now?

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J. FRANCOIS EID, MD: What I did now is I reinflated the prosthesis to make sure that it's the appropriate size, tested the distal tip by going underneath the drape.

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IRWIN GOLDSTEIN, MD: See how you're holding the penis, but you're not really touching the penis.

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J. FRANCOIS EID, MD: But at some point I went underneath the drape, felt the head of the penis. It's very important to have the size correctly. I haven't yet met a patient who's asked me for a reduction in size. Every patient wants the biggest possible penis.

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IRWIN GOLDSTEIN, MD: So you're very sensitive to that.

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J. FRANCOIS EID, MD: So we're very sensitive to that and we want to make sure that we have a happy customer after everything is done.

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IRWIN GOLDSTEIN, MD: So as you put your hand underneath you'll change your gloves?

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J. FRANCOIS EID, MD: Change my gloves before it's brought back in field. That's why we have always two pairs, because it's easy to take one out and you don't touch your own skin. We're closing the right side now, and our patients go home without any drains. And this is a vascular organ, and we'll - you will have some bleeding, and we want to avoid that, and we will do a - what we call a watertight closure. It takes a little bit of time to do because we're using a sharp needle near the inflatable device, but in our experience with over 3,000 implants, we've actually never injured a device with this needle. So we want to make sure that it's a running watertight closure. We actually do a 2-mm increments in the suture, and if I'm unable to create a watertight closure, I will use surgical to make it watertight.

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IRWIN GOLDSTEIN, MD: You put that right over -

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J. FRANCOIS EID, MD: Put that right over it and then throw an extra suture on top of it.

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IRWIN GOLDSTEIN, MD: Roughly how - where are you now in time from the initial incision to roughly here?

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J. FRANCOIS EID, MD: At this point I'm about, I'd say, 20 to 30 minutes into the procedure.

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IRWIN GOLDSTEIN, MD: So your procedure is under an hour.

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J. FRANCOIS EID, MD: It's under an hour. It's about 50 minutes, 50 minutes to an hour.

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IRWIN GOLDSTEIN, MD: Now, some other email just came in, and it says he's a doctor from Miami who's interested in undergoing training. So the question is, Can people train with you?

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J. FRANCOIS EID, MD: Absolutely. We have a Coloplast organizes these training courses. What is even better than surgical training is to spend some time in the office to look at patients before an implant and look at the way patients look a month after the implant, how they look three months after the implant. So by getting feedback and volume, that progress can be made.

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IRWIN GOLDSTEIN, MD: Paul, can people train with you?

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PAUL PERITO, MD: Yes, we have a training program here also set up by Coloplast, and if they contact their local rep, we can get them down here to see a bunch of cases and then possibly enjoy a little bit of Miami.

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IRWIN GOLDSTEIN, MD: Not possibly. Absolutely. Where are we now?

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J. FRANCOIS EID, MD: We're closing the corporotomy and we're throwing in the last stitches. And –

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IRWIN GOLDSTEIN, MD: Now, do you drain these, Francois?

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J. FRANCOIS EID, MD: No, we don't drain. And again, I feel that this patient will be an advocate for the procedure, and I want to make sure that when the patient goes home that he will talk about how good his experience was and how the incision – how small the incision was, how painless it was, and how –

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IRWIN GOLDSTEIN, MD: And what are you doing here?

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J. FRANCOIS EID, MD: We're irrigating – washing the pump, even though the pump has never touched the skin. And we're going to place the pump. Again, this next slide illustrates the closure of the corporotomy, and the pump's sitting on the scrotum while we're closing the corporotomy.

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IRWIN GOLDSTEIN, MD: Not on the scrotum, on the –

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J. FRANCOIS EID, MD: On the skin. On the skin of the scrotum.

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IRWIN GOLDSTEIN, MD: Yeah.

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PAUL PERITO, MD: That's one of your old slides.

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J. FRANCOIS EID, MD: Yeah. This is the old technique. We're creating a flap of scrotum at this point to place the pump. We will go – we will start on the midline deep into the scrotum in order to bury all the tubing and make sure that the patient doesn't feel any hardware. And similarly, we don't want the patient's partner to feel any tubing exiting the penis. We only dilate the scrotum once, and as soon as it's dilated the pump goes in. Unnecessary dilation will cause more edema, and edema causes pain and infection. You can see there's a tiny opening there, and we will actually close that opening. By closing the opening in the scrotum, we actually bring the tubing to the midline into the back of the scrotum. So again, that's an additional layer that will bury the input tubing.

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IRWIN GOLDSTEIN, MD: So I have another email request, and that's, "What antibiotics are you using when you're irrigating the wound here?"

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J. FRANCOIS EID, MD: Evidence-based medicine has never proven that a irrigant with an antibiotic is actually useful, and therefore it was pulled out of the hospital where I work, and therefore currently we're not allowed to use anything but saline. And our infection rate is actually lower now than it was before. So perhaps evidence-based medicine is not a bad thing after all, you know.

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IRWIN GOLDSTEIN, MD: As an editor of a journal, I will support that.

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J. FRANCOIS EID, MD: So here we're prepping the reservoir. I should add that every time we handle a new piece of equipment, we will change gloves. You see it's new gloves here. And again, we try to limit the amount of bacteria that will actually touch the device. Infections can occur two weeks to three months after the penile implant is placed. Typically, however, they will occur in the first month. However, I've seen patients get infected two or three years later.

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IRWIN GOLDSTEIN, MD: What are you doing now?

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J. FRANCOIS EID, MD: We're placing the reservoir after having made a tiny hernia on the patient's left side.

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IRWIN GOLDSTEIN, MD: So this is through the transversalis fascia?

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J. FRANCOIS EID, MD: Through the transversalis fascia of the external inguinal ring, medial to the cord, right over the pubic ramus. The reservoir goes right in, and that is actually a very easy part of the procedure to do.

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IRWIN GOLDSTEIN, MD: What's so interesting is to see that it took you about a minute.

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J. FRANCOIS EID, MD: Yeah, it's the quickest part of the procedure.

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IRWIN GOLDSTEIN, MD: There are physicians who are greatly stressed over this, and it really is –

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J. FRANCOIS EID, MD: It's actually the easiest part, yeah. We're trimming the tubing. And we trim tubing in a way that we will not have excess tubing. We'll actually pull up on the tubing, and then you'll see me later on, I'll pull down on the pump through the drape. The drape gives one access to the pump and the scrotum, the head of the penis, without touching the skin. Again, none of the – you can see so far in this case, the instruments nor the gloves nor the prosthesis has touched the skin.

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IRWIN GOLDSTEIN, MD: That's just amazing. Congratulations to you.

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J. FRANCOIS EID, MD: Thank you, thank you very much.

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IRWIN GOLDSTEIN, MD: Another question has – they're coming in loud and clear. "I have a curved penis and I want to know if a penile implant will help me."

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J. FRANCOIS EID, MD: It will –

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IRWIN GOLDSTEIN, MD: I presume he means Peyronie's.

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J. FRANCOIS EID, MD: It will if the patient has organic erectile dysfunction.

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IRWIN GOLDSTEIN, MD: Let's presume that he has.

00:27:00

J. FRANCOIS EID, MD: If the patient is potent, then that's not the treatment of choice. If he has, then the penile implant will enable him to make love with or without a curved penis. So one doesn't have to have a perfectly straight penis to make love, and so we will correct some of the curvature with the implant. But like Dr. Perito, I believe that less is better. So we want a functional – our goal is to have the patient be functional and feel normal. He may not have the best looking penis in the world, but he'll be able to make love with it.

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IRWIN GOLDSTEIN, MD: Okay. That's an excellent point.

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J. FRANCOIS EID, MD: We're closing the first layer. This is one of three layers. And once that layer is closed, then everything is now sealed inside the patient. We will then move the drape and unveil the final product.

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IRWIN GOLDSTEIN, MD: It's a technique with lots of attention to detail, and I think that's the ultimate message, so congratulations for putting this all together.

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J. FRANCOIS EID, MD: This is done through a one-inch opening in the scrotal sack, and because of that, we never have to transfuse patients. We never lose blood. These patients – we don't even type and cross these patients, so we don't even know what blood type they are.

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IRWIN GOLDSTEIN, MD: How many days do they spend in the hospital?

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J. FRANCOIS EID, MD: They go home the same day. As soon as the spinal epidural anesthesia has worn off, they go home. And they return to the office 10 days later to have three little sutures removed. They start the warm bath in the morning, warm bath in the evening three days after the surgery. And we –

00:28:38

IRWIN GOLDSTEIN, MD: And they're in bed rest?

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J. FRANCOIS EID, MD: They're in bed rest for two days. It's important. We have some patients who think that they're going to go to work the next day, so we want to make sure that they know that it's a little bit more involved than that.

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IRWIN GOLDSTEIN, MD: Paul, do you have – do you send your patients home?

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PAUL PERITO, MD: Yeah, it depends. They can go home the same day or they can stay overnight. Because of my use of the drain, it depends on how comfortable they are using the drain, but we'll talk about that.

00:29:00

IRWIN GOLDSTEIN, MD: And you have a catheter, but you teach them --

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J. FRANCOIS EID, MD: The catheter, and the patients remove their catheters. They will cut the orange part of the catheter that you see here with a pair of scissors and they'll come right out. They take it at home – they take it themselves at home. If they have a problem, I tell them to just tie it to a cinder block and throw the cinder block out the window.

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IRWIN GOLDSTEIN, MD: Don't say that (laughs).

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J. FRANCOIS EID, MD: No, I'm joking. They will take it out. One of the things that I've learned from my patients is that patients feel very – that this is a very personal treatment, so they don't want to know that anybody – they don't want anybody to know that they're actually getting a penile prosthesis.

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IRWIN GOLDSTEIN, MD: Sure.

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J. FRANCOIS EID, MD: And I don't blame them for that. So anything that will lengthen their hospital stay may alert the patient's children or the patient's –

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IRWIN GOLDSTEIN, MD: Do you do lots of surgery on Friday afternoon?

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J. FRANCOIS EID, MD: So we do surgeries on Friday afternoon, and a lot of – and the patients will say to me, "If I have to stay in the hospital I'm not doing this." Because we've done several patients where the patient's wife may be on vacation and so he's doing it –

00:30:01

IRWIN GOLDSTEIN, MD: He had an opportunity.

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J. FRANCOIS EID, MD: He's had an opportunity and so forth. So –

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IRWIN GOLDSTEIN, MD: So what are you doing here? You're – you're putting some pressure –

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J. FRANCOIS EID, MD: We're just cleaning up the patient, putting a little dressing, and then – and then we will use a jock strap. Here's the catheter. This is – the Foley bag is temporary. That will be changed to a leg bag in the recovery room. One thing is important to keep the penis up toward the umbilicus for the first 10 days to shape the penis in a straight fashion.

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IRWIN GOLDSTEIN, MD: Do you have any more slides to show?

00:30:32

J. FRANCOIS EID, MD: The only slides I want to show – this is – is the – our results with the technique. What our experience with 1,069 cases over the last five years. So you can see the last two years, Dr. Goldstein, using the no-touch technique. We've actually dropped our infections rate compared to the previous three years. If we combine the 1,069 cases, we have a 1.3% infection rate. So this is –

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IRWIN GOLDSTEIN, MD: That's remarkable.

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PAUL PERITO, MD: Why don't you tell them what the national average --

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J. FRANCOIS EID, MD: The national average is about 5%, I believe, and that is a historical number, which is by physicians who did a lot of implants. So this is – this is – perhaps doesn't reflect physicians who do fewer implants in smaller hospitals who have a greater infection rate. Thank you very much.

00:31:29

IRWIN GOLDSTEIN, MD: Excellent. Paul, why don't you show us your advances in this area.

00:31:36

PAUL PERITO, MD: Thank you very much, Dr. Goldstein. Thank you, Coloplast, for having me here today. I was invited today to speak about my minimally invasive penile implant. Any of the objective data that I'm going to give you today is based on a recent abstract where I reviewed my last 300 penile prostheses. All of these were Titan three-piece penile prostheses, so what you're going to see today, those numbers apply to that.

00:31:56

IRWIN GOLDSTEIN, MD: And you may add –

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PAUL PERITO, MD: And I hope that you are going to accept that. Please. No, we've already been talking about that. In this abstract what I wanted to look at is I want to look how my procedure has evolved over the last 10 years. Specifically, I wanted to look at my operative times, I wanted to look at my postoperative morbidity, and really I wanted to focus on how quickly my patients get back to a normal function. There's two hotly debated topics among some of the icons of penile implantation -- and one of them is sitting right here -- and those are my approach and my use of the drain. The top slide, if you are seeing it on your screen right now, is – macroscopically shows exactly why I don't want to go near the scrotum. I started using the infrapubic approach because I don't like the scrotum. And if I can tell this anecdote, it's a great anecdote. We have a training program down here. While I was training for the training program, I had this slide up on my computer screen, and one of my four daughters looks over my shoulder and she says, "Daddy, why is that skin so wrinkly?" And I didn't know what to say, so I said, "Because it is." And she went, "Ew." That's kind of the way I feel about the scrotum. Any of the surgeons that may be watching this, if you look microscopically at the scrotal rugae, you know what they look like. It's nooks and crannies reminiscent of Nordic fjords. It's a great place for bacteria to hide. And the other reason that I like going infrapubically is because, because you don't have an incision in the scrotum, I can get my patients working with their implant, finding their release valve, and massaging that area a lot sooner because there's not an incision there. When looking at the drain –

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IRWIN GOLDSTEIN, MD: When do they shave the hair...of the scrotum?

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PAUL PERITO, MD: Immediately pre-op.

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IRWIN GOLDSTEIN, MD: Just pre-op. Okay.

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PAUL PERITO, MD: And now you're not allowed to use razors anymore. There's some new concept that you have to use –

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IRWIN GOLDSTEIN, MD: Okay.

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J. FRANCOIS EID, MD: Electric razors.

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PAUL PERITO, MD: Electric razors.

00:33:43

J. FRANCOIS EID, MD: Which don't shave well.

00:33:45

PAUL PERITO, MD: Takes a little bit longer. The other hotly debated topic would be the use of a scrotal drain. Now, one concept that I've never truly understood is the concept of retrograde migration, or contamination, in a negative pressure drain system. Now, I could tell you that in my last 300 cases, my infection rate was .66%.

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IRWIN GOLDSTEIN, MD: That's awesome.

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PAUL PERITO, MD: And to make it clear how this guy got it, it was the same guy both times, and he used it within the first week. Now, you may or may not be happy to know, but I've since reimplanted him, kept him on lockdown, and he's got a third functioning implant. But one of the other things that I like about the drain: routinely my patients will drain anywhere from – and it's surprisingly high – 75 to 150 cc's of bradykinin-producing blood products. And one thing that my girls don't see in the office anymore is what we used to call "the

walk," when the guys walk in with that postoperative pain, big heavy scrotum. We don't see that anymore. And I truly believe one of the reasons that we don't see that anymore is because of the drain. If you could roll the video, please.

00:34:46

IRWIN GOLDSTEIN, MD: Okay, let's do that.

00:34:48

PAUL PERITO, MD: I would like to tell you, Dr. Goldstein, that the day that we did this video, we did 16 implants, we filmed three of them. And what you're seeing right here is a real-time procedure. Up on the top righthand corner is a clock. The only time we stop that clock is when we're cutting away. I start my procedure with an artificial erection. The reason I do that is manifold. Number one: I can identify pathologies that I might not have seen in the office, like curves, dimpling, plaques. Number two: it'll dilate up that corpora so when I finally cut down to it it's very easy to identify. Number three, and we were just discussing this: the saline-lidocaine mixture is not in there that long, but it's possible that we do get some postoperative analgesia with this mixture. So right now we're –

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IRWIN GOLDSTEIN, MD: So you've catheterized him before, correct?

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PAUL PERITO, MD: Yeah, thank you for showing that. I catheterize the patient before I prep him. Like Dr. Eid, I don't like the urethra, I want to stay away from it. We get the catheter out of there and I don't place it at any time during the procedure.

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IRWIN GOLDSTEIN, MD: What are you doing now?

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PAUL PERITO, MD: Right now I'm doing my infrapubic incision. It's very important that you pull down so that you avoid any penopubic tethering, very similar to the penoscrotal tethering that you'll see sometimes if you make your incision not where Dr. Eid does but below it. So I don't get any penopubic tethering by pulling down and making my incision just above the corpora. Try to spare these little tiny lateral vessels that you'll see – superficial epigastrics – so that you don't have any penile edema. As you can see we're a minute into it, including the artificial erection, and we're already down to the corpora. And we're going to cut away right now, I believe, to a shot from above where you can clearly see the corpora.

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IRWIN GOLDSTEIN, MD: You're way lateral.

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PAUL PERITO, MD: You're way lateral, lateral from the dorsal nerve. You don't have to worry about the dorsal nerve. You dilated up your corpora with your artificial erection and you're able to clearly see where your sutures are going to go in the corpora.

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IRWIN GOLDSTEIN, MD: You don't have a retractor as Dr. Eid had a retractor.

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PAUL PERITO, MD: Yeah, I'm going to show you what I call the revision Scott retractor a little bit later. My stay sutures end up acting as a retractor.

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IRWIN GOLDSTEIN, MD: Okay.

00:36:54

PAUL PERITO, MD: What I would like for you to notice right now is I'm using a 3.0 monochrome, that colored suture, it's a dyed suture. And then on the other side I'll use an undyed suture. And the reason I do that is because one of our recent trainees had come down and said, "Doc, I don't like doing infrapubic incisions because of this bowl of spaghetti." And that's because he was placing a lot of sutures in all the same color. Well, now I only have four stay sutures, two different colors, and that makes it so it's less

confusing, even though later on in the procedure you're going to see that I kind of get the – the sutures tangled up, but it really doesn't affect the procedure at all. Here's one more shot of me placing a stayed suture far lateral from the – the dorsal nerve. I myself, like Dr. Eid, have done thousands of procedures. I have never seen a case of glandular hypoaesthesia or anesthesia that could be attributed to an injury to the dorsal nerve.

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IRWIN GOLDSTEIN, MD: That's excellent. But because you are doing it that way, you have great exposure, quickly, to the corpora.

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PAUL PERITO, MD: Yeah. You're immediately down to it, and here we are two minutes and thirty seconds. And now we've already got all four of our stay sutures in. Now, the next step is performing your corporotomy. That's the hole that you're going to place the cylinders into. The largest part of the implant is 1.5 cm. Now, I try to make that corporotomy exactly 1.5 cm. It's a little shadowy right there, but using a curved blade, I'm pretty exact with that measurement. If it's 1.5 cm, I'll be able to get my implant in there, use my stay sutures to close my cavernotomy, and not have to put in any other sutures.

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IRWIN GOLDSTEIN, MD: Actually, you know, the lidocaine was in place for about 2-1/2 minutes, which is probably –

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PAUL PERITO, MD: Okay, so maybe it does work.

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IRWIN GOLDSTEIN, MD: No, it actually is probably enough.

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PAUL PERITO, MD: I hope so. They appear to be okay, whether or not it's a spinal or a genital. Now, the first thing that goes up and down the corpora for me is the Furlow, and I do that for two reasons. Number one: it's a blunt instrument. Number two: I'm able to get my measurements out to the back table so they got my implant – at least they're starting to prepare it. And number – number three: if you look, I'm always doing traction and countertraction so I'm not going to perforate, and I just have never seen a perforation using that.

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IRWIN GOLDSTEIN, MD: But you went straight to the large dilator after that.

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PAUL PERITO, MD: The second thing I do is I use a large 12. It's not even a large; twelve is the minimum Hegar dilator that you – it corresponds to 1-1/2 in diameter, 1-1/2 cm in diameter. So that way I'm minimizing my dilatations. Serial dilatations are to me, number one, a waste of time. Number two, I believe that I'm compromising some of that spongy tissue, which I believe is what keeps the tissues warm. And remember all the old papers where they would talk about cold glands? Well, maybe I can get another paper in your journal looking at the number of cold glands that we have. So now that we've done the minimal dilatation, the next thing we need to do is we move to the reservoir, which Dr. Eid and I do it identical. The one thing I would like to say was when you're doing it from an infrapubic approach, you'll see I perforate the anterior rectus fascia with my tonsil [sp?], and I just get my finger in there. So if the guy's had a radical or a cystectomy, hopefully I'm never going to perforate anything.

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IRWIN GOLDSTEIN, MD: You started that at 4:17. You've now perforated it, it's now 10 seconds, and you're going to have the device in, and the whole thing is taking 30 seconds. It's just unbelievable.

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PAUL PERITO, MD: It's in. But the one thing I'd like you to notice was that the nasal speculum is running from cephalad to caudad. You do not want that lockout mechanism to

be bent, the neck of the reservoir to be bent, because that'll render the lockout mechanism, which is a beautiful aspect of the Titan –

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IRWIN GOLDSTEIN, MD: Where's this saline going?

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PAUL PERITO, MD: This saline is going into the reservoir. So they're filling the reservoir. And while she's filling the reservoir, you can see I'm messing with my bowl of spaghetti. I'm trying to get my sutures in line. And then shortly, or hopefully, OR-Live will stop – you guys don't stop it, they stop it automatically.

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IRWIN GOLDSTEIN, MD: It's another 10 seconds.

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PAUL PERITO, MD: Yeah, another 10 seconds.

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IRWIN GOLDSTEIN, MD: So Francois, just tell me, he's touching skin with his device and you spent the first 30 minutes telling us not to. Just a thought about that.

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J. FRANCOIS EID, MD: Well, I think he's doing the procedure quite quickly, and that –

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IRWIN GOLDSTEIN, MD: There's probably no time for the bacteria to –

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J. FRANCOIS EID, MD: No time for the bacteria, and so the contact of the bacteria time is minimized.

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PAUL PERITO, MD: If you can look at that right now, Dr. Goldstein, that's my equivalent of a Scott retractor.

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IRWIN GOLDSTEIN, MD: Okay, so your retractor is your suture.

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PAUL PERITO, MD: Yeah, I use my stay sutures as my retractor. And like Dr. Eid, I don't like a lot of instrumentation on the table. I don't like a lot of things to be coming back and forth. I don't cover the skin.

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IRWIN GOLDSTEIN, MD: Less is more.

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PAUL PERITO, MD: Less is more, once again. So now over the course of the next three minutes, where they'll be prepping the implant – it's about 3 minutes – I'd like to just go over the salient features of what we've already done. I like to use the color-coded stay sutures because they keep you from getting lost. They also – I wasn't able to show it because it was moving along, but your assistant is helping you by pulling on those sutures to make sure that any additional sutures are placed lateral. I can tell you that we have never injured a dorsal nerve. And then I don't know if you noticed, but the retract—only retractor that I did use is a very small Richardson retractor that I bent in the middle on a 45-degree angle.

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IRWIN GOLDSTEIN, MD: So you have better exposure.

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PAUL PERITO, MD: Well, if you get a patient with a large pannus, an obese patient, it allows you to get up and over his belly, and that's one of the complaints people have had with the infrapubic implant.

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IRWIN GOLDSTEIN, MD: Yet another modification.

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PAUL PERITO, MD: Yeah, yet another modification. Make sure that your corporotomies remain small, 1.5 cm. That's the widest part of it.

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IRWIN GOLDSTEIN, MD: Do you use a hook blade?

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PAUL PERITO, MD: I use a curved blade in order to make that corporotomy. I scored it for the shot here with the Bovie, but you just go directly to your curved blade. And make sure that they're small. Very rarely do I have to put any – in any additional sutures, and if I do have to put in any additional sutures, you make them very superficial to make it so it's watertight or near watertight.

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IRWIN GOLDSTEIN, MD: So what are you doing now?

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PAUL PERITO, MD: Let's see. Okay, here we are. The appropriate slide is up. Now we're inserting the cylinders with the Furlow. This is the rough part.

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IRWIN GOLDSTEIN, MD: Oh, so you're matching the things now.

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PAUL PERITO, MD: It's a rough part for anybody to watch who hasn't seen this procedure. But –

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IRWIN GOLDSTEIN, MD: So keep if needed a little exit through the glance [sp?].

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PAUL PERITO, MD: Yeah. Right now. And I love this shot right here. You see how my assistant is pulling on the suture laterally? That shows me my corporotomy. That's the extent of my retraction. It makes it very simple to place the cylinders.

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IRWIN GOLDSTEIN, MD: Seven minutes and we have the device almost placed.

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PAUL PERITO, MD: It's almost in place right now. Wait, let me see. I'll go back while we're doing that. Once again, remember to make sure that that reservoir comes straight out of the external inguinal ring, you don't have any bending on that reservoir. Because if you do, you'll render the lockout valve inadequate, and that's very important. The thing that we address with Dr. Eid, he doesn't use an antibiotic solution. The Titan implant has the hydrophilic coating; I'm going to take advantage of it. The literature's shown that it decreases the incidence of at least bacterial growth, so I use a combination of bacitracin/polymyxin, but if they happen to not have it, like you Dr. Eid, I'll use normal saline if I'm in another hospital.

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IRWIN GOLDSTEIN, MD: So you're irrigating with antibiotic solution?

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PAUL PERITO, MD: Yes. That is an antibiotic solution of a mixture of polymyxin and bacitracin. And like I said, there's hospitals that I go to, they don't have it mixed up and I just got to get it done, so I will use normal saline. I want you to notice with this gentleman he was a 23-cm implant. The largest implant is 22 cm. That meant I had to use a 1-cm rear tip extenders. I try not to use rear tip extenders because the more inflatable implant you have –

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IRWIN GOLDSTEIN, MD: The bigger, fatter, wider.

00:44:36

PAUL PERITO, MD: The bigger, the fatter.

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IRWIN GOLDSTEIN, MD: Harder.

00:44:39

PAUL PERITO, MD: Harder. All that good stuff. Plus, you end up with a more physiologic erection that points upwards. You don't get that hinging effect that you see. Right now you're going to see something that is very valuable to assess what you've done, and we do a very quick rapid fill of the implant. With that rapid fill I'll be able to look at the functional and cosmetic result that I have come out with. I'll make sure the cylinders are in the mid glans. Sometimes if you've crossed over you can go back, you can fix it. Plus, you also are able to seat the implant in the back. And as you can see, that's an excellent and functional cosmetic result.

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IRWIN GOLDSTEIN, MD: It sure is.

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PAUL PERITO, MD: Interestingly, how old do you think this gentleman is?

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IRWIN GOLDSTEIN, MD: This gentleman is 72 years of age.

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PAUL PERITO, MD: Ninety-one.

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IRWIN GOLDSTEIN, MD: Ninety-one!

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PAUL PERITO, MD: Ninety-one.

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IRWIN GOLDSTEIN, MD: God bless him. Wow.

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PAUL PERITO, MD: Yeah. He's just a wonderful guy (laughs).

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J. FRANCOIS EID, MD: He's got great anatomy.

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PAUL PERITO, MD: Yeah, he does have great anatomy. That's one of the reasons we chose him.

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IRWIN GOLDSTEIN, MD: So you're nine minutes, the device is in place, and you're now – you have to connect the reservoir.

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PAUL PERITO, MD: No, right now I do believe that the next step is I'm going to tie my sutures. And I have a great close-up –

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IRWIN GOLDSTEIN, MD: Close your corporotomy. Oh, there you go.

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PAUL PERITO, MD: Yeah, so I'm closing up my cavernotomy, my corporotomy, whatever you want to call it. And about 90% of the time all I need to do is use my stay sutures. In this – in the slide, you can see that you end up with a beautiful watertight closure just using your stay sutures to approximate it, as long as you've made it a small corporotomy. The other thing I want you to notice is that – and the slide says it, "Place the tie where it falls conveniently." Ninety percent of the time it will be distal to your tubing exit site, but about 10% of the time it will be proximal. Don't worry about it. Wherever it falls conveniently, that's where you tie it.

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IRWIN GOLDSTEIN, MD: If you need to place other sutures, you will?

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PAUL PERITO, MD: Yes. If I do have – if you look on the slow motion right there, you'll see that that guy maybe could have taken another suture. I could tell you just from experience

he didn't, but if I do see the implant and I've made my corporotomy too big, I can put a nice superficial suture in without damaging the implant.

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IRWIN GOLDSTEIN, MD: And you're going to put a drain in anyway.

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PAUL PERITO, MD: Yeah, well. See, here we are. We're finishing up our last closure. And now the next step will be to place the pump in the scrotum. I, like Dr. Eid, I don't like especially the skin. Going back to that first slide, I don't like touching the scrotum, even though the implant may have grazed it here and there. The way that I place the pump in the scrotum is I'll push down through scarpus fascia with my finger and then I'll use the nasal speculum. With one opening of the nasal speculum, you've developed –

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IRWIN GOLDSTEIN, MD: So there's your finger going down.

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PAUL PERITO, MD: Right. You perforate the scarpus fascia as it goes into the scrotum. Use your nasal speculum. Here's a great shot right here. You can see, just like Dr. Eid says, you put that thing in the most dependent portion of the scrotum, right in the middle. Nobody can see it and it's easier for them to use. I make them stop it here because that's the one time that I really grab the scrotum to give it one last pull down. Now, when I end up making my tubing connection –

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IRWIN GOLDSTEIN, MD: You bring it back up a little.

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PAUL PERITO, MD: Yeah, initially. And one of the reasons I did that abstract was, yeah, initially I found this, a lot of my patients had redundant tubing, and they could feel it when they were making love.

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IRWIN GOLDSTEIN, MD: So this way you get rid of it.

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PAUL PERITO, MD: So I pull up, like Dr. Eid does. And when I make my connection, I'm 2 or 3 cm above, so when I finally pull down on that pump, you end up with no redundant tubing.

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IRWIN GOLDSTEIN, MD: I want to put this in perspective. A TV show is 30 minutes. You could place two penile implants in men in one TV show. That's unbelievable.

00:48:03

PAUL PERITO, MD: Yeah. And going back to both of our principles: the less dissection you do, the – And that's what my paper, one of the summaries of my paper, is that patients are back to making love within four weeks. And their experience, as Dr. Eid alluded to before, it's a pleasant experience. And that's the way they should be. Do you realize that across the United States there's 300,000 breast implants a year? Across the world there's only 16,000 penile implants. There's something wrong with that disparity. Here I am, I'm putting in the drain. I bring it out through a separate stab wound. And it's very important that you put the drain in the most dependent portion of the scrotum. And the reason is, you want to drain that whole surgical field for all the aforementioned reasons.

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IRWIN GOLDSTEIN, MD: It doesn't stay in for longer than --?

00:48:48

PAUL PERITO, MD: Oh, yeah. I pull the drains out the following morning. If they're in the hospital, the house officer does. If they've gone home, they come to my office, they're there at nine o'clock, and I pull them out routinely. If you find you're having a lot of drainage in the postoperative suite, you can put a sandbag on the infrapubic area and it stops. Almost universally it'll stop it. So here I am. We're placing – and actually that was the end, and I think it was about 12 minutes.

00:49:11

IRWIN GOLDSTEIN, MD: Do you have any slides?

00:49:12

PAUL PERITO, MD: I've got one last slide. And this is my chance to get on my political soapbox.

00:49:16

IRWIN GOLDSTEIN, MD: Well, go for it.

00:49:17

PAUL PERITO, MD: And this is a great venue for it. We have OR-Live, where you look at wonderful surgical technologies every week. And, you know, this is not a surgical technology, but both of us have surgical procedures. And whenever you're evaluating a new surgical technology or a new surgical procedure, you've got to remember six parameters, and those parameters I've listed here: decreased operative morbidity, decreased operative mortality, decreased operative time, decreased hospital stay – in this case, decreased time to going back to using your implants -- decreased blood loss, and most importantly, teleologically, and that means for the better of the whole, decreased cost. And right now at this point in time –

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IRWIN GOLDSTEIN, MD: At this time it puts an emphasis on the –

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PAUL PERITO, MD: Yeah, at this point in time, I think –

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IRWIN GOLDSTEIN, MD: Can we take – Congratulations, but let me take the gizmo, and why don't we spend a few more minutes on the choices that doctors have toward using the prosthetic devices. You have a device that's made out of silicone. And we think of prosthetic devices for breast and other things as silicone, but in fact we have a prosthetic device for the penis made out of a polyurea...

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J. FRANCOIS EID, MD: Urethane.

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IRWIN GOLDSTEIN, MD: Urethane...it's an alternative to silicone, and it's basically virtually indestructible. So that's a process called Bioflex. And the Coloplast prosthesis is in fact a polymer of the silicone called Bioflex. So we're just going to spend two seconds on some peer review publications on the Bioflex. And here's a study showing survival of the two kinds of devices: one, the silicone-based, and one the Bioflex base, where the Bioflex was shown to have greater survival when the devices had to undergo modeling. And modeling is this unusual prosthesis maneuver when you bend the penis to help straighten the penis. Do you have any comments, Francois, on that?

00:51:19

J. FRANCOIS EID, MD: No, and my only comment is that I think the devices will actually straighten the penis over time, so although in the past I used to spend more time bending the penis with force to try to make it straight, now I've taken an approach --

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IRWIN GOLDSTEIN, MD: It's like the stenting effect.

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J. FRANCOIS EID, MD: It's almost a stenting effect. Unless you have a really gross curvature that's over 90 degrees, I usually do not – no longer model. But indeed, I've never had a Bioflex cylinder fail, so these cylinders are indestructible.

00:51:53

IRWIN GOLDSTEIN, MD: Well, you bring up a point. There are – that device, the Bioflex, the upper left on your slide, has been around pretty much since the late 1980s, so that gives us 20 year of exposure. We have placed more than 100,000 of these over the years, and to date there has not been a report of a failed either reservoir or cylinder out of Bioflex. Now,

on the bottom is a device made out of silicone. Silicone isn't so strong, especially with the pressures during penile prosthesis surgery, and you can actually see an aneurysm forming. That forced the manufacturer of the silicone to wrap the silicone in a Dacron cloth and then put some material called Paralene in between. This is an interesting slide because Francois and I, by the way for all you out there, are both engineers from Brown University, and this is as engineering as you'll ever get in this slide. This is basically mechanical properties of the polyuretha urethane polymer called Bioflex versus the plain old silicone. And you can see just in the top point, tensile strength, which means the pressure against the device wall until it breaks, Bioflex is approaching nine or eight times stronger in its ability to withstand force before breaking. Another characteristic of Bioflex, **bolded**, is that it has abrasion resistance, and that means when silicone rubs against each other it actually thins the silicone, which creates a weakness, whereas Bioflex when rubbed together does not have any resistance problems. And here is a Bioflex ultra photograph showing no problems with the device. So Bioflex is stronger. It should be used in situations where there's need for stronger, and that would be in a Peyronie's case, where modeling is the potential issue. Now, since Bioflex isn't surrounded by the cloth, that is surrounding the silicone, you can actually get a wider girth. So Paul, what does a wider girth mean to you?

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PAUL PERITO, MD: I think you're asking the wrong sex. But wider girth, without a doubt, suggests that you're going to have a more rigid erection. And there's good data that shows that the wider, the more rigid the erection.

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IRWIN GOLDSTEIN, MD: Yeah, so that's - Paul, that's - what you see is what you get. And the wider Bioflex cylinder does lead to a wider girth. And when you actually look at what predicts penile rigidity among the various predictors of pressure, which you can't change, and tunical properties, which you can change, the one thing the doctor has the ability to do to get a more rigid penis is to get a wider penile geometry. So wide and thick makes the penis do the trick, if you like, for the mnemonic.

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J. FRANCOIS EID, MD: The other point which I'd like to make is that the Bioflex really adapts itself to the patient's anatomy.

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IRWIN GOLDSTEIN, MD: That's an excellent point.

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J. FRANCOIS EID, MD: So it really -

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PAUL PERITO, MD: It's the most physiologic.

00:54:58

J. FRANCOIS EID, MD: It's the most physiological. It has a nice tip, it fits right underneath the glans penis because it has a tapered tip, and then for the patients with wide penises it really fills the penis completely.

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IRWIN GOLDSTEIN, MD: So here's a slide looking at a penis with sort of a Coral Gable shape, 7 inches wide. To put a long and thin device which has restricted girth may not be the most appropriate item, so here you have the other advantage of the Bioflex device. It's the only device that has a lockout valve, and the lockout valve prevents autoinflation. Do either one of you have any comments on that?

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J. FRANCOIS EID, MD: Yeah, I think the lockout valve is an invention that prevents fluid from leaking out of the reservoir back into the implant at inopportune times. And anything that increases intraabdominal pressure, such as coughing, straining, lifting, pushing down, to have a bowel movement, or urinating, can put pressure on the reservoir and produce a

partial erection with the implant. And having the lockout valve has prevented this from happening.

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IRWIN GOLDSTEIN, MD: So looking at the slide, we can see in a peer reviewed, published article comparing the role of the lockout valve in devices that had them against not having them, there were no problems with mechanical failure, dissatisfaction, infection, or revision. Yet it did stop the problem of autoinflation, so something that's very useful. If you look at this slide set, which says – so Paul, we'll go to you – if you have this person who has a lot of abdominal surgery and he wants a three-piece – so you can't put a two-piece in – and you're going to put the reservoir in some other place where it may be exposed to lots of pressures, which device would you select?

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PAUL PERITO, MD: I still would select the Titan three-piece penile prosthesis. The way that Dr. Eid and I put the reservoir in place, it's very difficult, if not impossible – We were talking there's been a couple of cases between the two of us where you can actually do any damage to something that's quote-unquote "intraabdominal." You can always put it under the rectus muscle. There's plenty of places for that third piece to go. And as we were discussing before, I always use the smaller reservoir so it can be – it can be concealed without any difficulty, so it's extremely rare that I use anything other than the Titan three-piece penile prosthesis.

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IRWIN GOLDSTEIN, MD: Okay, in the last few minutes we have left we have a roll, another video of how to inflate and deflate the device from the patient's perspective. So Francois, this is your patient. Why don't you take us through it?

00:57:30

J. FRANCOIS EID, MD: Yeah, this is a 72-year-old patient who's had a penile implant about three or four years ago, and this is it deflated. You can see that one advantage of the implant is that even when the penis is deflated, it's still a little bit full, a little bit longer. And again, men like to not show off their equipment, but they like to have a penis that's not retracted underneath their belly when they're in the locker room, for example, or on the urinal. And here's the pump. It's all the way in the back. It's important, as Dr. Perito mentioned, to put it in a place that is accessible for the patient yet it is concealed from the partner. The partner will not feel the pump during lovemaking, and therefore, this is a nice result. Now, all the patient has to do is reach down. And I'm actually going to inflate the device, illustrating how it works. It's going to transfer fluid from the reservoir into the penis, and you can see it doesn't take that many pumps. Now, the patient – what we have in New York is called the snow tire test.

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IRWIN GOLDSTEIN, MD: Let's hear about that.

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J. FRANCOIS EID, MD: The snow tire test is when the patient inflates the device. And this is – Coloplast has the best device for that test. He inflates the device in his garage and then he uses a snow tire to make sure that if the snow tire –

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IRWIN GOLDSTEIN, MD: If it can hold it up?

00:58:51

J. FRANCOIS EID, MD: If it can hold up the snow tire, he passed the snow tire test. It's a very scientific test.

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IRWIN GOLDSTEIN, MD: Paul, you can't do the snow tire test here in Florida, can you?

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PAUL PERITO, MD: No, no. Here in Miami Beach we have the wet beach towel test.

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IRWIN GOLDSTEIN, MD: So, the wet beach towel test.

00:59:02

J. FRANCOIS EID, MD: So we're going to have a – we're going to publish a series on the wet beach towel and the snow tire test. And you can see it's a – it's an erection 90 degrees with the body. It's very firm, wide, and there's no tubing that can be seen or palpated. And this is what I consider to be a great result. It's really – it looks and it feels normal. That's what I like to see.

00:59:28

IRWIN GOLDSTEIN, MD: In the last few seconds, I'd like you to summarize, both of you, so get your thoughts together. One of the statements that you said was there were so many breast implants but so few penile implants, so let's go to you, Paul, as you summarize. In the summary, put together what are the advances of the minimal invasive technique that you have, and why is it that we're – we have so many millions of impotent men, why are so few penile implants going on?

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PAUL PERITO, MD: I think that this is probably one of the best venues I've ever seen to dispel all the myth and the mystique behind a penile implant. How many times have you had guys come in your office and they're going like this? I mean, it's ludicrous. Now they have an opportunity to see it's a simple, safe, incredibly effective implant, and maybe that disparity in numbers between the breast implants and the penile implant will change.

01:00:21

IRWIN GOLDSTEIN, MD: What else would you want to do for 15 minutes of your life? And Francois, what take-home message from the no touch technique?

01:00:27

J. FRANCOIS EID, MD: The take-home message is that this is a very safe, incredibly successful procedure, and the devices are awesome. The devices now have matured, they've been on the market since 1973, so they're incredible devices. It's very professional, and patients can expect 15 years of incredible lovemaking. I mean, this is – to think that you can actually have an erection whenever your partner wants to make love and that you control the duration of the erection is a man's dream. There's nothing more that a man wants to do from a sexual point of view.

01:01:05

IRWIN GOLDSTEIN, MD: Other than infection, what side effects are we looking at, Paul?

01:01:08

PAUL PERITO, MD: A hard penis.

01:01:11

J. FRANCOIS EID, MD: Oh, I think there are some other technical aspects, such as either too small, it wasn't sized properly, or the space for the reservoir wasn't appropriately made. There are other technical issues that can be of concern, but with an experienced physician, these can be –

01:01:27

IRWIN GOLDSTEIN, MD: You should expect if you have an implant it lasts for how many years, Paul?

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PAUL PERITO, MD: I quote 2% will fail every five years.

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IRWIN GOLDSTEIN, MD: Two percent.

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PAUL PERITO, MD: Will fail every five years, so most guys will go to their grave with it. But to go back to the one thing that you were saying about it being too small. The longer you wait to get this fixed, the shorter your penis will become. There's been some great literature where they look at radical prostatectomies –

01:01:48

IRWIN GOLDSTEIN, MD: That's an excellent point.

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PAUL PERITO, MD: -- where they render them impotent in one day. So when guys come and I do the penile stretch test, and they go, "Oh, I used to be here," I go, "You wait another couple of months, you're going to be back here." But it's the truth. So when they complain –

J. FRANCOIS EID, MD: But it'll be a functional penis.

01:02:04

PAUL PERITO, MD: -- about it being too small, I've found that, "What am I doing giving it to somebody else?" No, you waited. If you wait, you lose it. If you don't use it, you lose it.

01:02:11

IRWIN GOLDSTEIN, MD: Those are excellent points. Any other take-home messages, either one?

01:02:16

J. FRANCOIS EID, MD: There's some – there's a phenomena that I've observed with many of the couples that come to see me, and that is that for a man, it's very important to be able to have an erection for himself. And a woman, or a partner, will often say, "Well, honey, don't do this for me. I don't need this." And after she realizes that this is a gift for him – he doesn't want to be an obsessive lovmaker, this is just to make love once or twice a month.

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IRWIN GOLDSTEIN, MD: Comes much more easily.

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J. FRANCOIS EID, MD: Just to feel normal. This is a gift for the guy. Then she understands and she will support her partner. So really, you know, from a – it's important for a woman to understand why men want to get a penile prosthesis.

01:03:07

IRWIN GOLDSTEIN, MD: Okay. Well, god. You guys are fantastic. You are propelling the field to great levels. Live from Coral Gables, I want you to know you've seen some very excellent surgeons with some excellent techniques. I expect and hope to see more publications in here for other doctors. I want to thank everybody for listening and I hope you learned a lot. Thank you.

01:03:32

ANNOUNCER: This has been a discussion of penile implant surgery live from Coral Gables Hospital. OR-Live makes it easy for you to learn more. Just click on the "request information" button on your webcast screen and open the door to informed medical care.

01:03:57

[end of program]