

"THE TRUTH ABOUT IMPOTENCE"

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ANNOUNCER: Tonight on NOVA, impotence. Why is a hot new drug sweeping the market? Because millions of men suffer. But no one wants to talk about it—until now.

BOB MORTON: I wouldn't have had the guts to even discuss it with a doctor.

LARRY GOODMAN: I felt very insecure.

JERRY GLAZER: It was quite devastating.

ANNOUNCER: Real patients. Real causes. Real treatments. "The Truth About Impotence."

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BOB MORTON: I won't say I was suicidal because of it, but I just thought, my God, I will not be able to satisfy a woman ever again.

JIM GREGORY: You can achieve an erection for about two minutes, and then it just starts to fade away. And it didn't used to do that.

JERRY GLAZER: It was quite devastating. I can't overemphasize the anguish, the mental anguish of not being to make love with my wife.

CINDY BANKS: And I took the blame. You know, I decided I wasn't pretty enough, or sexy enough.

LARRY GOODMAN: I felt very insecure. I felt like I was not the total package anymore.

BOB MORTON: I wouldn't have had the guts to even discuss it with a doctor. Because we go to the doctor and we say what's wrong, but there are some things we never discuss.

NARRATOR: No one wants to talk about it, but millions of American men are affected by it. It is called impotence, or erectile dysfunction.

IRWIN GOLDSTEIN, M.D.: The definition of erectile dysfunction is the consistent inability to obtain or maintain an erection of sufficient quality for satisfactory sexual intercourse.

NARRATOR: Once an ignored corner of medicine, the study of male impotence **has taken center stage with the release of the first effective erection pill. The pill joins a host of other treatments that have sprung from an intense scientific quest to understand how erections work, and why they fail. No one knew how widespread the problem of impotence was until the New England Research Institutes looked at the health and**

habits of American men aged 40 to 70. One part of the study was a self-administered survey about sexual behavior. Men were asked if and how often they had difficulty getting an erection. The problem was more common than expected.

IRWIN GOLDSTEIN, M.D.: The recent statistics from the Massachusetts Male Aging Study revealed that 52%—That's every other man—52% of men aged 40 to 70 will self report a type of erectile dysfunction. It can be severe, it can be moderate, or it can be minimal.

NARRATOR: Until recently, it was widely accepted that impotence was primarily a psychological condition.

RAYMOND ROSEN, Ph.D.: When I began my work in this field in the early 1970s, the prevailing concept at that time was the Masters and Johnson point of view. You know, they began much of the work in this field in the early 1970s. And Masters and Johnson made an absolute statement at that time that sexual dysfunction is 90%—That was the figure they used—psychological and 10% medical or organic.

NARRATOR: But today, this long held assumption has been overturned. As medical treatments to restore erections have been introduced, a new understanding of male sexual physiology and the causes of impotence has emerged. One of the first treatments for impotence was introduced about 20 years ago. Jerry Glazer is a practicing attorney.

JERRY GLAZER: Hi, Bill. This is Jerry Glazer. How are you? Yeah, how's show business?

NARRATOR: Soon after moving his law office from New York to Los Angeles, Jerry suffered a massive heart attack. Bypass surgery saved his life, but the circulation problems that led to the attack left him impotent.

JERRY GLAZER: It was a nightmare. All kinds of psychological problems, crying. It got to a point where I was even afraid to even go near my wife or touch my wife. I didn't want to. I was embarrassed. I was suicidal. I was thinking of ways to commit suicide and make it look like an accident so that my wife could collect that insurance. And finally, my wife told me to go see my doctor.

GAIL GLAZER: Jerry and I have always had an active sexual life. And I really felt that it wasn't a psychological problem because we'd never had it before. And so, we talked about it, and I said, "Look, why don't you go to the doctor and find out? Maybe there's something physically wrong."

JERRY GLAZER: And I went to the urologist, and I told the urologist the situation and the background. And he said he was going to take my blood pressure. And I thought he was a little crazy, but he's the doctor. So, he took the blood pressure. He says, "You know, you have very good blood pressure." I said, "That's very nice." He says, "You to hear it?" I says, "Do you want me to listen to it? Give me a stethoscope. I'll listen to it." He says, "No, we have a stereo box on the wall with a stethoscope attached. You can listen to it in stereo." I said, "Fine," and I'm thinking to myself, where is the exit? And it sounded like the Colorado River. And he said, "Now, I'm going to take the blood pressure in your penis." I said, "OK." I figured for sure, this guy's nuts. And he said, "OK, you want to hear it?" I says, "Yeah, turn on the stereo." He says, "It's on." And I said, "Well, I hardly hear anything. There's something wrong with your stereo." He says, "There's nothing wrong with the stereo. You have very low blood pressure in your penis." I says, "So, what has that got to do with anything?" He says, "Well, how do you think you get an erection?" I says, "I haven't got the faintest idea."

NARRATOR: Jerry did not have enough blood flow in his penis to create an erection. To overcome this problem, his doctor suggested a vacuum device which would draw blood into his penis to make it erect. When vacuum devices were developed in the early 1970s, doctors had only a

rudimentary understanding of erections. What they knew was that healthy blood flow was key. Inside the penis are two long, slender chamber, the corpora cavernosa, or literally, "hollow bodies." These chambers are made up of spongy, smooth muscle tissue. During arousal, blood floods into this tissue. The blood inflates the chambers, creating an erection. The vacuum device mechanically enhances the flow of blood into the penis.

GARY LEACH: So, as you know, the device goes over the penis, and with the jelly there, it will make a good water—airtight seal.

JERRY GLAZER: Right.

NARRATOR: In newer models, a battery-powered pump creates the vacuum. A rubber ring traps the blood inside the penis. A notch at the base of this ring allows semen to flow out during ejaculation.

GARY LEACH: A small percentage of men, maybe 10% or 15% of men, have some mild discomfort with ejaculation.

NARRATOR: Restricting blood flow can cause the penis to become cool to the touch. And some men complain that the rubber band is painful. Others reject the device because it seems too cumbersome.

GARY LEACH: I think a lot of men, when we first show them the vacuum device, may be put off a little bit about what's this big contraption, and is it going to be difficult to use, is it going to be painful? But once we actually explain the device, and actually give them a demonstration where we actually apply the device onto the person and let him use it, a lot of those anxieties fall by the wayside.

JERRY GLAZER: I was overwhelmed, thrilled. And I have the same or better orgasm as anybody else. I still have my erection after my orgasm. And this may sound funny to some people, but it happens to be a fact, because my erection is not going to go away until I take that pressure band off.

NARRATOR: An erection sets the stage for orgasm and ejaculation. During orgasm, waves of muscle contractions propel sperm from their storage area at the top of the testicles. The sperm mixes with fluid supplied primarily by the prostate gland. This seminal fluid travels out of the body through the urethra, a narrow tube located below the erection chambers. It's a delicate physiological event with deep psychological importance.

JERRY GLAZER: When I have an orgasm, making love to my wife, it's not my penis. It's not my leg. It's my whole body—feels that loving culmination of a wonderful experience.

NARRATOR: But what worked so well for Jerry, other men find too awkward or embarrassing.

JACK LYNCH: I brought this Chilean wine in today for you to try it. It's summertime.

NARRATOR: Jack Lynch is an unmarried, 59-year-old wine salesman.

JACK LYNCH: I had been with this woman for a number of years. And we were in bed together, and I couldn't function sexually. And I recall just sort of rolling to the side and almost groaning and saying, "Oh, God." And she says, "Don't worry. It's OK." And she said something to the effect, "Oh, it's too bad. You were such a swordsman, Jack." And that felt like a stab in the heart. It made it even worse.

NARRATOR: Jack's inability to achieve an erection persisted for several months before he made an appointment with his urologist, Irwin Goldstein. Several diagnostic tests found damaged blood vessels in Jack's penis.

IRWIN GOLDSTEIN, M.D.: And it appears that the circulation to your penis is just not adequate. OK, it's insufficient.

JACK LYNCH: Right.

NARRATOR: First, he showed Jack an x-ray of a man with healthy blood flow.

IRWIN GOLDSTEIN, M.D.: This is the artery entering into the erection tissue. You can actually see grape-like structures, blood entering the erection tissue. Now, this is another man who has the equivalent of what you have, diminished circulation.

NARRATOR: Circulatory problems, or vascular disease, is characterized by blocked, narrowed, or crimped arteries. A restriction here in the arteries leading to the penis can slow the blood flow to the erection chambers, which need a strong blood supply to fill and make the penis erect.

IRWIN GOLDSTEIN, M.D.: Another example. Let's go to the sink here. As I open the water, that's your expectation for filling. If you have a blockage, that's what comes out. This is slow-filling, less rigid.

JACK LYNCH: That's me.

IRWIN GOLDSTEIN, M.D.: That's you.

NARRATOR: The vascular damage in Jack's penis is unusually severe. The best treatment for him is the most radical one, a surgical implant.

IRWIN GOLDSTEIN, M.D.: We do approximately 30,000 of these devices a year, so you can rest assured you're just not alone. The key point of the implant operation is that the decision to place the implant is irreversible. To place these devices, you necessarily must injure the tissue. Now, albeit in your case, your tissue is not healthy to start off with, but it is a decision that you have to consider carefully.

NARRATOR: The surgery is also expensive. The cost can range from \$12,000 to \$20,000. And insurance plans don't always pay for the procedure.

JACK LYNCH: I really want to do it. I'm highly motivated to do this, so that I feel like I can become whole again, and basically perhaps share my life with another woman again, and find happiness not only for myself, but provide it for someone else. I mean, instead of buying a new car, for example, or a Ralph Lauren suit, I'm saving my money for a penile implant. (laughs) The old Pontiac will do. (laughs)

NARRATOR: On the day of his operation, Jack is prepared for the two-hour surgery. He knows he faces a painful recovery from the incision made in his scrotum to implant the prosthesis.

IRWIN GOLDSTEIN, M.D.: Just to review, this is the prosthesis.

NARRATOR: There are several types of implants. Jack's has three main parts: a fluid reservoir, a pump, and the erectile balloons. The two long balloons are inserted into the erection chambers. When inflated by a small pump in the scrotum, fluid from a reservoir, implanted near the bladder, will flow into these balloons.

IRWIN GOLDSTEIN, M.D.: You're inflating, slowly.

JACK LYNCH: Right.

NARRATOR: This creates an ejection.

IRWIN GOLDSTEIN, M.D.: The beauty of this is, not only does this get rigid, but it actually gets wider. And again, the hardness comes from the fluid ball here. And you can see, this is now getting empty.

NARRATOR: A valve on the pump release the fluid in the chambers, and the fluid returns to the reservoir. The penis returns to its normal size.

IRWIN GOLDSTEIN, M.D.: Not bad, huh?

JACK LYNCH: No. It's really good.

IRWIN GOLDSTEIN, M.D.: So, you're all set?

JACK LYNCH: I think so.

IRWIN GOLDSTEIN, M.D.: All right, big guy. We'll take good care of you.

JACK LYNCH: Thanks. I appreciate it.

NARRATOR: If all goes well with this surgery, Jack will recover and be capable of intercourse within about six weeks. A year ago, at age 77, Harvey Wick had implant surgery. Before that, he had lived for 15 years without sex. After his wife died, he reunited with his former high school sweetheart.

HARVEY WICK: When I was married to my first wife, things gradually separated in the marriage. Because I snored, because I was restless or something, I picked another bedroom. And in so doing, we just didn't get together all the time. And they say that one of the things is, you either use it you lose it. (laughs) And so, evidently, I lost it.

NARRATOR: Harvey decided to have a penile implant, and within two months, was capable of having sex again. He married Iole, who was also single after an unhappy marriage. When Harvey returned to the doctor for a check-up after the surgery, he and Iole went together.

IOLE WICK: The doctor says, "Now, I'm going to pump this up. So, he pumps Harvey up."

HARVEY WICK: When she's there, right there.

IOLE WICK: And I'm sitting there, you know. And he says, "Iole, feel this." (laughs) I did, and I said, "Oh, wow!" He said, "That's what I wanted to hear!" (They both laugh.)

NARRATOR: Clinical experience shows that regardless of what therapy is used, the best results are achieved when both partners participate in the treatment.

HARVEY WICK: (playing cards) Thank you, Sweetie. Thank you.

IOLE WICK: No wonder you win. I let you cheat all the time.

NARRATOR: Implant surgery can provide a reliable erection, but by itself, can't always restore complete sexual function.

HARVEY WICK: You lose some of the sensitivity on the crown of your penis. You lose some of that. And so, the brain has to catch up, or the brain has to think also about what's going on before you can actually really enjoy it.

IOLE WICK: He doesn't always come. But it doesn't bother him, which is fine, because now I don't have to worry about it. If it doesn't bother him, it doesn't, you know. So, and when he does come, oh, it's heavenly. Oh! (laughs) Out of this world. (They both laugh.)

NARRATOR: Four weeks after his surgery, Jack Lynch returns to the doctor to pump up his new prosthesis for the first time.

IRWIN GOLDSTEIN, M.D.: Put one finger here and one thumb there. Think of the logic here.

NARRATOR: First, Jack practices on a sample prosthesis.

IRWIN GOLDSTEIN, M.D.: Now, your next step is to go to the real thing. Are we ready to graduate?

JACK LYNCH: Why not?

NARRATOR: Many men are frustrated the first time they pump up. It can be difficult to learn how to use the prosthesis, especially when the scrotum is still swollen or tender from the operation.

IRWIN GOLDSTEIN, M.D.: Have you felt any of that vibration, sound or anything?

JACK LYNCH: No. Today, I'm a little bit nervous. And hopefully, I'll get better at this. I'd better.

IRWIN GOLDSTEIN, M.D.: Don't get frustrated, OK?

JACK LYNCH: Oh, I'll be all right.

IRWIN GOLDSTEIN, M.D.: Just think of the endpoint.

JACK LYNCH: I'm just, you know, feeling a little awkward.

IRWIN GOLDSTEIN, M.D.: You now have the capability to have an erection any time you want. I mean, that's unbelievable. Think of that.

JACK LYNCH: So, that's going to be it?

NARRATOR: Sometimes, an implant diminishes the size of a man's erection or its sensitivity, although it usually does not interfere with orgasm or ejaculation. Jack's new erection didn't immediately live up to his expectations.

STAN DUCHARME, Ph.D.: For a lot of guys after an implant, it's a major adjustment. The penis that they get after the surgery is just not what they expect. And there's a sense of disappointment, perhaps in the size, and perhaps how it works. But for most guys, it gives them a confidence. It gives them the confidence to get back out there, start asking somebody for a date. And it gives them the confidence to start being sexual again.

NARRATOR: After his recovery, Jack was ready for the first time in four years to form a new relationship.

JACK LYNCH: Falling in love again is exciting and also scary, because well, for me, I start to feel like a kid again, you know, sort of nervy and edgy. This was something so new again that it

made me feel like a whole person, and human again. I've had a sexual relationship since the operation that has been deliriously happy. And I couldn't be happier than I am now because of that.

NARRATOR: Implant surgery has done more than help men overcome erectile dysfunction. It has also led to a deeper understanding of erectile physiology. To make room for an implant, surgeons usually remove some of the spongy muscle tissue from the erection chambers of the penis. Tissue like this was at the heart of a medical debate. Were erections created when penile muscle relaxed, or when it contracted? If scientists understood the role of this muscle, perhaps they could find the magic bullet, an erection drug. The muscle tissue is attached to sensors. Immersed in a nutrient bath, the tissue responds to chemicals that cause it to relax or contract. The response is immediately graphed. The muscle is quite strong, generating enough force to lift as much as 800 times its own weight. But how does this muscle control blood flow to create an erection?

IRWIN GOLDSTEIN, M.D.: You had to explain two opposing thoughts. One, you had to fill the thing, so that meant you had to relax. OK? And one, you had to hold the blood in place, which meant you had to contract. So, there were contractionists, and relaxationists, I'm basically saying. And you obviously can't have both things happening.

NARRATOR: The debate ended abruptly in 1983 when a British research scientist made an unusual presentation.

ROBERT KRANE, M.D.: A physiologist—I think he's a neurophysiologist or a neuropharmacologist from England named Giles Brindley, was giving a lecture in the evening. And his lecture, I think, was on the pharmacodynamics or pharmacology of erectile function. And just after he started, he pulled down his pants. He was wearing sort of running trunks. And he pulled his pants down, and had an obvious erection. And he told the audience that he had injected with phenoxybenzamine, which is a drug that we actually have never used for injection. But he nevertheless had used that, and he had an erection. And then, he came down from the stage and walked up and down the audience, actually asking people to inspect his erection—which didn't occur—and went back up on stage and continued his lecture, and pulled his pants back up.

NARRATOR: By injecting a powerful muscle relaxant into his penis, Brindley proved that relaxation of penile muscle tissue was the key.

IRWIN GOLDSTEIN, M.D.: Sort of eccentric, but he made his point. And he made his point quite well. And that was it. The controversy ended. Relaxation was what caused erection.

NARRATOR: Doctors finally had a complete picture of how the muscle tissue in the penis controlled blood flow to create erections. Inside the erection chambers, the spongy, smooth muscle tissue forms millions of tiny sacs. In a flaccid penis, this muscle is contracted, narrowing the sacs, and slowing blood flow to a trickle. But when nerve signals from the brain cause the muscles to relax, blood flows in. As the erection chambers fill, they expand, inflating the penis to its erect state. But what keeps the blood in the penis? As tissue in the erection chambers expands, it presses against small veins which normally drain the penis of blood. These veins get squeezed shut against the tough outer layers of the erection chambers, trapping the blood inside. As long as this blood is trapped, the erection is maintained. This new understanding made it possible to create erections by injecting a muscle relaxant directly into the penis. This quickly became the dominant therapy.

TERRY: OK. When you're ready to inject yourself, what you very simply do is, once you have identified the mid-line, drop the needle down approximately a half an inch, and very slowly put it right into the shaft of the penis.

NARRATOR: The needle is thinner than a human hair, and most men say that injecting is not painful. Nevertheless, placing a needle into the penis is a frightening thought.

TIMOTHY RODDY, M.D.: When I bring it up to them, most of them are, you know, a blur going out my door. You know, "We're going to put a needle in your penis." "No, you're not." You know? So, I always tell them, I says, "Just give me"—pardon the pun—"Just give me one shot, and I'll prove to you that it's easy.

NARRATOR: Hrvoje Bubalo is a candidate for injection therapy. He and his wife, Samra, fled to the U.S. three years ago to escape the war in Bosnia. Hrvoje was serving as a soldier when he was injured by a hand grenade. Today, a slight limp betrays the shrapnel wound that damaged nerves in his spine. At the age of 24, he was told he would probably never make love with his wife again.

SAMRA BUBALO: The way the doctor in Sarajevo told us about his problems, and for sure, 80%, that we won't be able to have a normal sexual life again.

HRVOJE BUBALO: The main reason why we want this is to have the family. You know what I mean? To have children one day. But when you don't have that opportunity, then it's a little bit sad, you know?

NARRATOR: But Hrvoje and Samra have begun a course of treatment they hope will bring sex back into their marriage.

HARIN PADMA-NATHAN, M.D.: How've you been?

HRVOJE BUBALO: OK. Nice to see you.

HARIN PADMA-NATHAN, M.D.: Yeah. Nice to see you. Welcome back.

SAMRA BUBALO: Nice to see you.

HARIN PADMA-NATHAN, M.D.: So, today we're going to hopefully make one more step in the progression towards you ultimately using injection therapy at home successfully. Today, we're going to create a rigid erection. You're going to find out that you can function again. And finally, we're going to do it without me injecting. But I think I'll save you injecting until the next visit, and have Samra inject today, OK?

HRVOJE BUBALO: OK, perfect. OK.

HARIN PADMA-NATHAN, M.D.: All right. All right, let me get you to hop up here.

NARRATOR: On this, their third visit to urologist Dr. Harin Padma-Nathan, Hrvoje will receive a trial injection to find the proper dosage.

HARIN PADMA-NATHAN, M.D.: You can catch some of this. The next time, I'll teach you. Today, I just want you to do the same thing. Just relax and don't worry.

HRVOJE BUBALO: No problem.

NARRATOR: The doctor is always beginning to acquaint Samra and Hrvoje with the mechanics of injection.

HARIN PADMA-NATHAN, M.D.: I'll show you how to inject it. I'm going to set everything up for you today. So, you don't have to worry about any anatomy or anything. So, if you will take the syringe and hold it like this, firstly, I'm going to have you inject down into the penis like this.

SAMRA BUBALO: OK.

HARIN PADMA-NATHAN, M.D.: And let's just have you inject.

SAMRA BUBALO: Should I hold like this?

HARIN PADMA-NATHAN, M.D.: Yeah, go ahead. Perfect.

SAMRA BUBALO: Here?

HARIN PADMA-NATHAN, M.D.: Straight in, first finger or thumb there. And go ahead and plunge slowly. Good.

SAMRA BUBALO: Slower?

HARIN PADMA-NATHAN, M.D.: No. No, that's a good speed. Push it all the way in. How are you doing? No problems?

HRVOJE BUBALO: No.

HARIN PADMA-NATHAN, M.D.: Great.

SAMRA BUBALO: OK.

HARIN PADMA-NATHAN, M.D.: Go ahead and pull it out. And we're done.

NARRATOR: Hrvoje and Samra will know if this test dose has worked in about ten minutes. The dosage must be carefully adjusted to each individual. If it is not, the consequences can be disastrous.

IRWIN GOLDSTEIN, M.D.: I had a patient yesterday, just yesterday, who borrowed a needle from a friend, and injected himself. No doctor's permission, no training. The patient who had the medicines available to him showed him how to do this. He administered it to himself. He came in 36 hours later with an erection that had lasted for 36 straight hours. He had multiple intercourses, and from his point of view, at the beginning, everything was sort of interesting. But he is now totally impotent. Here is a totally ridiculous misuse of a medical drug. And he is very unhappy. And tears were coming from the partner and from the patient, and it was not a pleasant scene. But I mean, that is inappropriate use of a prescription medication.

NARRATOR: But when used properly, these drugs are relatively safe and free of side effects.

HARIN PADMA-NATHAN, M.D.: How did you do?

HRVOJE BUBALO: Good.

SAMRA BUBALO: I think good.

HARIN PADMA-NATHAN, M.D.: Yeah?

SAMRA BUBALO: Yeah.

HARIN PADMA-NATHAN, M.D.: OK. Let's have a look. Now, are we back to where you were before?

HRVOJE BUBALO: Well, I think it's much better right now.

NARRATOR: The injection relaxed the smooth muscle tissue, and the increased blood flow did the rest.

HARIN PADMA-NATHAN, M.D.: Well, I would say that's a pretty good response. That's not 100%, but it's a lot better. It's certainly functional.

HRVOJE BUBALO: Yes.

HARIN PADMA-NATHAN, M.D.: If you look at it, actually, it's not very bendable. It's very rigid.

HRVOJE BUBALO: That's great. Thank you very much.

HARIN PADMA-NATHAN, M.D.: Good. All right. Today, instead of having me inject, we had Samra inject. He had a tremendously rigid, very good usable erection. The next step is for him to inject and for them to try it at home.

NARRATOR: An injection can give Hrvoje an erection, but the nerve damage from his injury may still prevent him from achieving orgasm and ejaculation. A man's sexual function begins in the most important sexual organ, the brain. In response to sensory stimulation, a signal from deep in the brain travels down from the spine, around the prostate, and into the muscles that control blood flow in the penis. As blood pressure in the penis rises, so does an ejection. The increased blood flow also intensifies the sensitivity of the skin. Further physical stimulation to the penis sends signals back to the brain along a separate nerve path. If conditions are just right, the brain is stimulated to the point of orgasm, and sends out signals that trigger waves of muscle contractions that produce ejaculation. Altogether, it is a delicate chain of events that is all too easily broken. Hrvoje's injury stopped the erection signal from his brain before it could reach his penis. But whether his nerve paths for sensory feedback and ejaculation are intact remains to be seen.

HRVOJE BUBALO: We didn't have a normal relationship in the last five years. And we didn't make love in the last five years, so it's probably going to be a little bit, you know, nervous, and everything else. And to be honest with you, I'm probably going to be a little bit afraid of how I'm going to react. Am I going to have a good reaction or not? Am I going to be able to make love, or stuff like that, you know? Well, I think it's normal after that long time. So just, we're going to see what's going to happen.

NARRATOR: Even when erectile dysfunction has a clear physical cause, it also has important psychological dimensions. For Hrvoje and Samra, the challenge of resuming sex is made easier by their ability to talk openly about the subject.

TANYA WILLIAMS: The main thing is to talk about it. And see, our generation was raised not to talk about these things. Your parents didn't discuss it. You didn't discuss it with them. People just didn't discuss this, and this is still, you know, sort of the attitude. The naturalness and the just everyday attitudes toward sex are changing. But we were sort of raised with it being a taboo subject and so forth and so on. And also, we were raised with the idea that by the time you're our age, what do you need sex for? You've got your family. I mean, we weren't raised with the idea that it was something—part of the relationship between two people. So, my advice would be to talk about it.

NARRATOR: Noel Williams had prostate cancer, and chose to have his prostate removed. The nerve path for the erection signal from the brain passes around the prostate. Removing the prostate often damages these nerves. For many men, a radical prostatectomy results in erectile dysfunction. The prostate produces most of the fluid that makes up semen. So, a man without a prostate cannot ejaculate, though he may still experience a normal orgasm. Over 70,000 American men undergo this surgery every year. And many of these men suffer erectile dysfunction.

NOEL WILLIAMS: My first goal was to beat the cancer. That part is done. Then, the next step was to beat the dysfunctional part.

NARRATOR: After his surgery, Noel could not get an erection. His doctor recommended injection treatment. Though he had some initial resistance to injecting himself with a needle, Noel is now using the medication with no trouble.

TANYA WILLIAMS: We were laughing about it yesterday. Having had this period of abstinence and semi-abstinence and so forth, and now finding a solution, it's sort of like when we were dating again, or being in our 20s. It's like being in love all over again. You know, it's like a new experience. We're like a couple of kids just starting out again. Dr. Roddy said, "It's not going to be like being 18." Well, I didn't know him when we were 18, but it's very much like being 24. (They laugh.)

HRVOJE BUBALO: Cheers.

NARRATOR: After Hrvoje received his medication, several weeks passed before he tried injecting at home.

HRVOJE BUBALO: We just said, "You know what? Let's try tonight. We don't have any reason to wait anymore." And it just works great. And like we said before, that made us feel like we were 18 years old again, or we were on a honeymoon again. So, it was great. It's a great feeling when you are nervous and you don't know what to expect, and then after that, everything works great. You know, that's a great feeling. I mean, you feel a big relief, you know.

NARRATOR: Fortunately for Hrvoje, the shrapnel that damaged the nerves that cause erections did not disturb the nerve path that leads to orgasm and ejaculation.

HRVOJE BUBALO: I just feel after that like I keep something in a cage for four years, and then after four years, I let go that out. You know, I mean, I just feel comfortable and free, and you know, that was an amazing feeling.

SAMRA BUBALO: I have to say we laughed, and because it was, for us—

HRVOJE BUBALO: Well, you laughed.

SAMRA BUBALO: That's all I do, kind of. (laughs) Yeah, I did laugh, because—I didn't laugh because it was funny. I think that I was really happy, because we really were able to do that. And I was really, really happy. That's all that I was thinking. We wouldn't know if we didn't try, and now, we see our future.

NARRATOR: As new treatments are devised to help impotent men, major questions remain. How many men are affected? And what puts them at risk? A 1994 study by the New England Research Institutes revealed some surprising answers. They found that the condition was much more common than anyone had imagined. At age 40, about 40% of the men studied reported some degree of impotence. The figure rises to 48% at age 50, and nearly 70% at age 70. But

the survey was designed to probe much deeper, looking for risk factors in nearly every aspect of men's physiology and behavior.

SUSAN: Blood pressure pills?

MAN: Yes.

NARRATOR: They found a familiar array, hypertension, high cholesterol, diabetes...

SUSAN: Do you now smoke cigarettes?

MAN: Yes.

NARRATOR: ...cigarette smoking. All these risk factors contribute to a gradual decline in the circulatory or vascular system. The survey found that erectile dysfunction is often associated with vascular disease. And this suggested an intriguing possibility.

JOHN McKINLAY, Ph.D.: Perhaps—and this is just a hypothesis—Perhaps the men who in their middle years have erectile dysfunction are those men who are subsequently going to have heart attacks or serious cardiovascular disease. Perhaps it's a biobehavioral mark-up or a predictor of those events. Now, if it is, that's extremely important, because cardiovascular disease, as you know, is the number one killer in the Western world. So, we are talking about the possibility of erectile dysfunction being a predictor of the number one killer of men in the United States.

NARRATOR: But many of these risk factors are controllable.

JOHN McKINLAY, Ph.D.: The risk factors for erectile dysfunction are the same as the risk factors for coronary artery disease, cardiovascular disease. Smoking is probably number one.

NARRATOR: And perhaps men who won't stop smoking to save their heart will stop smoking to restore their sex lives.

ANDRE GUAY, M.D.: And we're going to measure erections at night at home.

NARRATOR: The link between smoking and erectile dysfunction may be more immediate than anyone suspected.

ANDRE GUAY, M.D.: Well, we know smoking is bad. There are old wives tales that smokers have decreased libido and that smokers didn't function as well as non-smokers. We weren't quite sure why at the beginning, so we did some studies looking at this. And we had patients measure their erections at night, with a machine we gave them, while they were smoking, and then one day off cigarettes. This is called the Rigiscan. It's about the size of a tape recorder.

NARRATOR: The Rigiscan creates a portrait of a man's erectile function while he sleeps. The patient will fit flexible rings around the base and tip of his penis before he goes to sleep. These rings measure his erections throughout the night. Each night, a man with normal erectile function will have up to three hours worth of erections, during which his penis is engorged with fresh, oxygenated blood. The penis needs this increased blood flow to remain healthy. A Rigiscan readout like one at the bottom of the screen indicates severe erectile dysfunction. The longest lasting nighttime erection? Just five minutes. This is a Rigiscan of a cigarette smoker.

ANDRE GUAY, M.D.: Now, there's one more thing to remember. The second day, you won't smoke the entire day, and that evening, you'll be doing the second night's recording, off cigarettes for 24 hours.

NARRATOR: The effect of not smoking for just one day is clear. In 24 hours, this smoker's nocturnal erections returned to nearly 50% of normal. Dr. Guay believes it is carbon monoxide in cigarette smoke, not nicotine, that inhibits normal erections. The implication for smokers is dramatic. The Massachusetts Male Aging Study found that smokers were seven times more likely to be completely impotent than non-smokers. Extensive field survey work, decades of laboratory research, and clinical experience gained from treating hundreds of thousands of men all have uncovered important physical causes of impotence. But the psychological dimension remains critical.

RAYMOND ROSEN, Ph.D.: We have seen a complete swing of the pendulum to a point where today, most experts are saying that sexual dysfunction in men and women is 80% or 90% physical, and only 10% or 20% psychological. Now, personally, I feel that both points of view are equally incorrect, or equally wrong. And the fundamental problem here is the idea that something as complex as human sexual functioning can be either completely physical or completely psychological or emotional.

NARRATOR: The track record of injection therapy illustrates the point. Though it can create an erection in 80% to 90% of impotent men, nearly half of them stop using it within a single year. It takes more than an erection to restore a healthy sex life.

RAYMOND ROSEN, Ph.D.: Sexual dysfunction does not occur in a vacuum. Sexual dysfunction is a dynamic dance, an interplay between two human beings. And the male's erection may be a major stumbling block, and it may be necessary or important to treat that and offer help for that particular problem. But we must always understand that this is only one small cog in the larger wheel of that couple's relationship.

NARRATOR: As the Baby Boom generation ages, the number of men who experience impotence continues to grow. Even men with no age-related medical problems can be affected. Stress, fatigue, and medications like anti-depressants can all reduce sex drive or erectile function. And yet, according to the best estimates, only 5% of the affected men seek medical help. Erectile dysfunction remains an uncomfortable subject for most men. And some men still find the available treatments awkward or invasive.

GENE GALLIPEAU: Well, I just didn't see anything on the market that looked like I wanted to get involved in it. All of the options had downsides that I didn't like.

NARRATOR: Gene Gallipeau had been impotent for four years when he decided to try a newly approved treatment.

TIMOTHY RODDY, M.D.: All right, we're going to do the first treatment today of the new MUSE.

NARRATOR: The medicated urethral system for erections, or MUSE, inserts a small pellet of muscle relaxing drugs into the urethra.

TIMOTHY RODDY, M.D.: If you look real careful, there's a white pellet there, and that's the medication. OK?

NARRATOR: It's the same drug that is used for injection.

TIMOTHY RODDY, M.D.: And then, this very gently gets inserted into the urethra, all the way to the hilt, OK? Hit the button, jiggle it back and forth, take it out. Inspect it and make sure the pellet's gone.

NARRATOR: The medication is absorbed through the walls of the urethra into the erectile tissue.

TIMOTHY RODDY, M.D.: And then, the absorption begins pretty much immediately.

NARRATOR: MUSE has been popular because men find this method less invasive than injections. But it is not as effective as injection therapy.

TIMOTHY RODDY, M.D.: OK. Very gently.

NARRATOR: For Gene, it worked, though it is still not as convenient as he would like.

GENE GALLIPEAU: Our sex life was not highly planned. And with the MUSE and with these other things, you've got to have a better schedule, you know? I would be interested in anything that would be more spontaneous.

NARRATOR: A new generation of treatments for erectile dysfunction may meet this widespread desire.

HARIN PADMA-NATHAN, M.D.: As you can see here, this pill is very small, and it's easily placed in your mouth under your tongue.

NARRATOR: In clinics around the country, several new oral medications are being tested. The first of these is now available to the public. The pills are designed to work in conjunction with a man's natural erectile system. One pill works in the sexual center of the brain, amplifying nerve impulses sent to the penis. Another pill acts in the penis itself, making the smooth muscle there more responsive to the erectile signal from the brain. A third pill causes a more general dilation of blood vessels, which again improves erectile response. All the new oral medications work to enhance, rather than to create an erection.

IRWIN GOLDSTEIN, M.D.: When one takes a pill, one requires sexual stimulation to get an erection. It's not an event that just follows the administration of the medication. If you're at a football game and take a pill, you're not going to get an erection sitting in the stands. Yet, if I injected you sitting in the football game, you would actually get an erection. One, the injection leads to an erection. The pill requires sexual stimulation to achieve an erection.

JIM GREGORY: What this does, it enables—It enhances your sensations and it allows you to function as you were when you were 20. It doesn't make you do anything. It just allows you to do it. And it works perfectly.

NARRATOR: The experimental pill Jim Gregory is testing has restored his erectile function after years of frustration. But it does have side effects, including dizziness and nausea. Alfred Pariser is testing Viagra, the first pill for impotence to be approved by the FDA. Alfred became impotent after prostate surgery.

ALFRED PARISER: The wonderful thing about this pill, unlike the injection and one other method that we did attempt, is that this is perfectly natural. Forget the fact that it's easy. It's natural.

NARRATOR: But the pills won't work for everyone. For the man with severe damage to his arteries and veins, the pills may not be enough. Because they require normal sexual stimulation to work, they are proving popular with partners as well.

WILLIAM STEERS, M.D.: A woman wants to be desirable. If you bypass that effect, maybe that's telling you something. And in fact, the very preliminary data on oral drugs versus injections, when you look at spousal reports. Boy, it's, "More natural. Much better." "Are the erections firmer?" "No, they're not as firm," but they—And they say, "That also is more natural." So in

fact, you have the partner saying feedback. I mean, when you treat erectile dysfunction, you're treating two people.

CHERYL PARISER: It was very important to both of us. And when he was able to get involved in this study, it really changed our lives, so to speak. We were back to normal.

ALFRED PARISER: I feel like the guy—like every young man feels when they first make their wife pregnant. And they walk around like they're a giant sperm bank. OK? I mean, yeah, that's the way I feel. I feel, my God, this is like this gift.

NARRATOR: A pill for impotence may help many men. But physicians and therapists with experience in this field caution that real solutions for sexual dysfunction are rarely so simple.

IRWIN GOLDSTEIN, M.D.: I remember when the implant came out, we thought we would never have any more problems with impotence. And then, when the drug for injection came out, this amazing thing that you could stick a needle in a man's penis and get an erection. We all thought that was the end of our problems with impotence. And now, the oral pill will come out.

RAYMOND ROSEN, Ph.D.: We have wonderful new treatments that I welcome wholeheartedly, and that will bring relief to millions of people. But let's not mistakenly think that because we know how some of these treatments work, that we understand how sexual dysfunction may have been caused in the first place. I believe, and I think most serious researchers in this field believe that sexual dysfunction involves a complex interplay of physical, medical factors, which are terribly important—and an interaction with the mental/emotional relationship aspects of the individual.

IRWIN GOLDSTEIN, M.D.: The pill is not the answer for everything, nor is any of the therapies individually the answer. But this field is alive. We're educating. We're learning. We're growing in our understanding not only of male sexuality, but female sexuality. This is a great era, because look back just 20 years ago. People with any forms of this dysfunction, where could they turn? They couldn't get any help. They couldn't get any understanding. We've come a long way, and we have a longer way to go.

HRVOJE BUBALO: Sex is a big, big part of human life, but it's not everything. So, I think love is number one, and understanding, especially in the marriage.

ALFRED PARISER: We're very lucky in that we have a very full and rich sex life. And an erection is only part of the sex life.

TANYA WILLIAMS: Sex is becoming one. I mean, literally, physically becoming one. It's a joining. It's a union. It's an ultimate expression. There's no other way to express that particular thing.

JERRY GLAZER: There's an expression, "Let's make love." And it doesn't mean, "Let's have sex." It's more than that. It's a broader concept. And to me, that's the most important thing in life.

ANNOUNCER: Still have questions about impotence? This is your chance to ask Dr. Irwin Goldstein, who is standing by. Log onto NOVA's Web site.

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