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The following is an edited transcript of the *Journal Club with Pearls & Marketing* (JCPM) of December 9, 2025, with Charles Runels, MD.

>> The video of this live journal club can be seen here <<

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Charles Runels, MD

Microbial contamination risks and clinical safety in platelet-rich plasma therapy and evaluation of rapid microbial detection methods

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ABSTRACT

Introduction: Platelet-rich plasma (PRP) is widely used for pain relief, wound healing, and so on. However, recent reports have documented cases of infections occurring after PRP therapy. In this study, we aimed to examine potential microbial contamination risks associated with PRP therapy and evaluate rapid microbial detection methods suitable for clinical use.

Methods: We assessed the risk of microbial contamination during blood collection, PRP preparation, and sterility testing. To evaluate suitable detection methods, we compared the microbial detection sensitivities of flow cytometry (FCM) and polymerase chain reaction (PCR) for identifying microbial contamination in PRP. For this purpose, PRP samples were inoculated with *Staphylococcus aureus*, *Streptococcus* spp., *Cutibacterium acnes*, *Micrococcus* spp., *Bacillus subtilis*, and *Candida albicans*.

Results: Following skin disinfection, microbial colonies were detected at the venipuncture site in six out of ten patients. Environmental monitoring identified airborne microbial colonies in two out of three anonymous PRP preparation facilities. Sterility tests revealed negative results for all 85 residual PRP and 15 platelet-poor plasma (PPP) cases. FCM sensitivity for microbial detection in PRP was effective at a concentration of 10^2 – 10^3 colony forming units (cfu)/mL or higher. While *C. albicans* could not be detected separately from non-specific PRP signals using FCM, it was detectable in PPP at $\geq 10^2$ cfu/mL. PCR sensitivity for microbial detection was excellent when analyzing pure microbial suspensions, however, it yielded a high rate of false-negative and false-positive results when PRP samples contained certain microbial strains.

Conclusion: The risks of microbial contamination were identified during both venipuncture and PRP preparation. To reduce these risks, it may be necessary to implement strict infection control measures and improve the sensitivity of detection methods. FCM is a promising method for rapid microbial detection in PRP.

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Topics Covered

- Antibacterial properties of platelet-rich plasma
- PRP and chronic, hard-to-treat infections
- Technique, sterility, and contamination risk
- Importance of FDA-approved PRP preparation systems
- Neurogenic and Schwann-cell effects of PRP
- Aging, trauma, and loss of genital nerve density
- Caution regarding exosomes and regulatory exposure
- Clinical positioning and communication with patients
- **New Directory Functionality, Profiles, and Conversion Mechanics**
- **Review Articles, Visual Education, and Adjunctive Therapies**
- Q&A on female sexual dysfunction [prevalence](#)
- AI tool demonstration

**Charles Runels, MD**

Author, researcher, and inventor of the Vampire Facelift®, Orchid Shot® (O-Shot®), Priapus Shot® (P-Shot®), Priapus Toxin®, Vampire Breast Lift®, and Vampire Wing Lift®, & Clitoxin® procedures.

Transcript

Welcome to our Journal Club. I think we'll finish in about 30 minutes tonight. We have four or five beautiful papers that should encourage us in what we do, a couple of tips to be garnered from them. And I wrote two emails for you that will help you, hopefully, find people who need what you know how to do.

So let's start with the research.

Platelet-Rich Plasma: Antibacterial Properties, Technique Integrity, Neurogenesis, and Clinical Translation

Antibacterial Properties of Platelet-Rich Plasma and Clinical Observations

This one, regarding antibacterial properties, is worth revisiting (the research idea is not new).¹ We've had research, dating back over a decade, suggesting that platelet-rich plasma can help with methicillin-resistant *Staph aureus* and treat hard-to-heal wound infections.^{2 3 4}

I bring this up because we, anecdotally, routinely hear about people receiving our O-Shot procedure and seeing women with recurrent, hard-to-treat UTIs find relief from their symptoms.

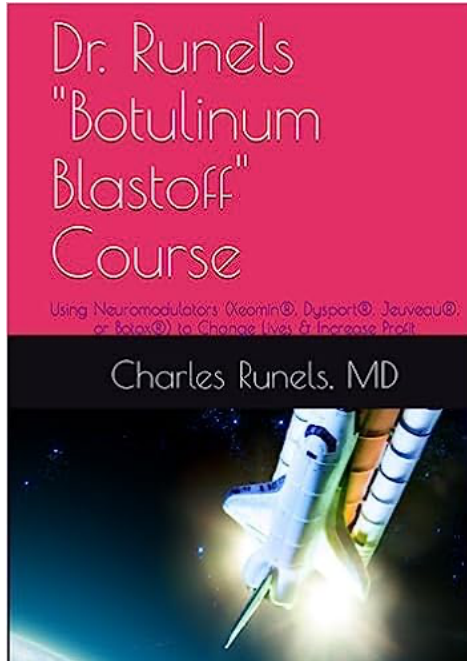
¹ Abdelgelil et al., "Antibacterial and Antibiofilm Activity of Platelet-Rich Plasma under Different Activation Conditions against Multidrug-Resistant MRSA Isolated from Human Skin Abscesses."

² Aggour and Gamil, "Antimicrobial Effects of Platelet-Rich Plasma against Selected Oral and Periodontal Pathogens."

³ Cl et al., "Antimicrobial Effects of Platelet-Rich Plasma and Platelet-Rich Fibrin."

⁴ Sethi et al., "Systematic Literature Review Evaluating Evidence and Mechanisms of Action for Platelet-Rich Plasma as an Antibacterial Agent."

We've discussed how the research suggests our procedure may be helpful for interstitial cystitis; however, all the papers except one focus on injecting into the bladder, and there has been limited discussion about treating recurrent UTIs.



But, many people have called me shocked that someone who's suffered with horrible pain for a long time, diagnosed with interstitial cystitis, now has relief a week or so after an O-Shot® for the first time in years.

And I have theories about why that might be happening: as you know, when we do the injection, we're literally millimeters from the urethra the way we do it. And sometimes, accidentally, we actually inject the urethra, so maybe that's a good thing.

But definitely this antibacterial property of PRP may be helping with UTI, and of course the neovascularization—which would also help with fighting a chronic infection—could be part of why this happens.

I'm hesitating because I want to say this in a way that I don't over-promise or sound like I'm hawking some magic potion

that fixes everything. But this is something that should be talked about more, because when we look at our naysayers—the people that have never studied our procedure—physicians don't really know what we're able to do and are closed-minded to the idea.

Some of our naysayers often list infection as a possible complication of PRP injections. It's like saying you're going to cause asphyxia by having someone breathe oxygen. We don't cause infections. We're treating with an antibiotic.

This is something I've woven into the email I'm going to give you.

Technique, Sterility, and the Importance of Proper PRP Preparation

This one has to do with technique.

One of the things I frequently preach about is the importance of having an FDA-cleared device for preparing platelet-rich plasma. And part of that has to do with the risk of contamination.

But (as opposed to using a tube meant to do lab testing), when you open up a RegenKit or a PureSpin or a Selphyl kit, they're blister-packed. You could literally take them into the OR, and a circulating nurse could open them up and let the tube fall onto the sterile field.

Now, we don't maintain a sterile field during our procedures. It's like the dentist doesn't maintain a sterile field—he's all up in your mouth. You can't make it sterile. You can be clean. And so we do that,

but we're not doing surgery. We're administering an injection of platelet-rich plasma, a substance with antibacterial properties.

But on the other hand, when you are doing these procedures—when you're doing your phlebotomy and when you're dealing with the tubes—you could technically, theoretically introduce contamination. And so they talk about risk of microbacterial, microbiome contamination when you're preparing, and they extend it to the whole environment.

So my recommendation has always just been as sterile as you would if you were starting an IV.

And, as you know, the face is so resistant to infection, and the genitalia, because they're so vascular, there could be a tendency to maybe not be as diligent.

I mean, if you worked in the ER, you know people can fall out of their car and scrape their face on the gravel, get cut with a beer bottle, and then be dragged through the dirt in a fight on the way to the ER—and they still hardly ever get an infection of the face; there's so much vascularity.

And similarly with the genitalia—unless you're, of course, around the rectum—but with just an injection or the genitalia, your chances of causing infection are minimal to none.

Improper Technique, Unauthorized Imitation, and Legal Consequences

On the other hand, it's worth noting that the wrong technique, the wrong kit, could lead to problems. And I think sometimes we take for granted the fact that we are—because it's so routine for us—we take for granted that **people don't all know about what we do (they assume they know but often get it wrong)**.

Or the people who are copying us—it happened in a nail salon, no doctor there—and they decide they're going to do this on the sly out of a hotel room with this centrifuge they ordered off of Amazon. Those are the people who wind up in jail.

I know of two of them so far. Right after we started our Vampire Facelift, there was a massage therapist in California who went to prison. The initial news mentioned the Vampire Facelift. Turns out she had injected the buttocks with something she bought at the hardware store, but that patient just died.

But the point is that here's a person who's doing horrible things, claiming to be doing our procedure, and she was able to pull that off before we were able to shut her down.

And then the same thing happened a few years ago, as you know, in New Mexico, and those two ladies are now in prison.

I think it's worth noting, although we often take it for granted, that every now and then, sending out a paper like this is beneficial. It lets people know that we are following proper procedures as part of our protocol. It's something subtle, but important.

Neurogenesis, Schwann Cells, Trauma, and Aging

This one is another nerve—I mean, how many of these have we done? This one's an author-opinion sort of article, but I like this right here:

PRP can stimulate Schwann cell proliferation, induce neurotrophic factor synthesis, and significantly increase Schwann cell migration in a dose-dependent manner.

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This is something that I think we should also talk more about, because if you ask about it, you'll find quite a number of men and women who have noticed a decrease in sensation of the genitalia.

And I think some of it's bicycle injuries without people knowing it. I quit doing triathlons because I would get anesthesia of my genitals after a long ride and could never make that stop, even with the best of seats and bicycle shorts. And so it would be decreased sensation for ten minutes after I got off the bike.

Research supports that idea, but other trauma happens, right?^{5 6 7}

A ten-pound baby passes through the birth canal and there's physical trauma.

Even without trauma, there is a need for neurogenesis. DeLancey published studies where he did autopsies on aging females and documented very vast attenuation in the number of nerves in the clitoris and around the urethra.⁸

There's aging that triggers atrophy of muscle of the urinary sphincter,⁹ and the same thing happens with nerve. And so even without injury, there's a reason for promoting neurogenesis just because of age.

And we have a way of doing that. To me, that's just tremendous. We can both grow nerves and blood flow, and we're doing it with what the body makes.

Exosomes, Stem Cells, and Regulatory Risk

I had another text message—someone asking me about exosomes—and just be careful.

⁵ Panara et al., "Adverse Effects of Common Sports and Recreational Activities on Male Reproduction."

⁶ Lui et al., "Association of Bicycle-Related Genital Numbness and Female Sexual Dysfunction."

⁷ Litwinowicz et al., "Strategies for Reducing the Impact of Cycling on the Perineum in Healthy Males."

⁸ Pandit et al., *Quantification of Intramuscular Nerves Within the Female Striated Urogenital Sphincter Muscle*.

⁹ Pipitone et al., "Urethral Function and Failure."

If you have any one for any reason who is saying to me, “Go for it,” (the devil or the angel on your shoulder), I always like to think, okay, if I go—if I take their word on this—and then my worst outcome happens and the FDA shows up in my office, will there be a downside for this salesperson?

And the answer is none at all, unless you’ve asked them to put in your hands what you’re going to show to the FDA if they land in your office. If they cannot do that do not use the product, and if they do that and lied about it, okay, now they’re in trouble.

But I’ve seen it and I’ve heard about it among our group. These salespeople disappear. They change to another company, they go to the moon, and you’re in trouble with the FDA or your medical board, and for the salesperson, there is no downside.

If they say you can use these exosomes by injection but you can’t advertise it on your website, I would be very, very careful. I’m not going to tell you what to do, but I would be very, very careful. I like doing things I can talk about.

And I bring that up because that’s not going to happen with platelet-rich plasma. FDA doesn’t care, and you don’t have to have the exosomes to see our procedures work.¹⁰

Here’s a paper right here showing that our straight-up, old-school O-Shot® works—which has become old school now that we’re pushing into the second half of the second decade. I like saying it that way. Sixteen years makes the second half of the second decade.

But why go to something that puts you at risk legally—even if it’s a small risk—puts the patient at risk—even if it’s small—because it didn’t come from their body, unless you need it?

Now, if you need it—they didn’t get well with your PRP, and you want to think about it—then okay. But I think going straight to it, exosomes or stem cells, unless you’re under an institutional review board or that salesperson puts something in your hand to make it safe for you if you get a knock on the door from their medical board or the FDA, then I would be very careful.

But all that to say, you can—and I did—weave this into an email that you can send to your patients, talking about how the science continues to support what we do. This paper is tremendously beautiful.

Review Articles, Visual Education, and Adjunctive Therapies

This one I put because it’s just—I admit it—I like pretty pictures, and I like when someone goes to the trouble to do a really beautiful review article that clearly articulates a topic.¹¹

¹⁰ Beitzel et al., “US Definitions, Current Use, and FDA Stance on Use of Platelet-Rich Plasma in Sports Medicine.”

¹¹ Shin and Huh, “Updates in Treatment for Androgenetic Alopecia.”

So if you're treating androgenic alopecia, then this is a really nice article. You could literally print off and put it into your waiting room.

But the other option could be that you link to it and send it out along with an email, which is what I did for you. I wrote one for you.

My wife is doing this now, using intradermal botulinum toxin for alopecia, and others in our group.

This one again—where did the exosomes come from? Are they from people or plants or the UPS man?

Just be careful. A lot of the studies, if you notice, where they're more open about talking about it, are coming from other countries where they don't have an FDA.

And then this one I put in just because—I mean, we know it works—but the saline arm, you know that's my pet peeve to talk about: saline is not a placebo in a cellular therapy treatment with hydrodissection as a component.^{12 13 14}

Saline works—decreased pain by 30%. PRP, of course, worked better for tendonitis.

Implementation Packet and Patient Email Strategy

I'll open this up so you can read it. I have placed it in the handout section. I wrote two emails, and I'll read through them for you, let you hear my thoughts, and offer some tips on how to send them out.

We lost a member today. I mean, we actually lost one to death last week. Our group's big enough now that people retire and die, but we lost one who dropped out today.

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And he has a men's erection clinic that he operates on his own. He's not part of a franchise or a big group. He just operates on his own.

He'd been in the group for a couple of months, and I looked. There was no webpage about the P-Shot®. He never ordered any books or brochures or a poster to go into his office. And there was no form on his website to collect email addresses from people who might be interested in coming to see him.

This is something I hesitate—I don't like saying—but it's true. Even if you're on our directory—and I know this is true because patients have told me and they've told our providers—even ***if you're on our directory, if someone looks at your website and they can't find anywhere where you're talking***

¹² Asghar et al., "Efficacy and Safety of Intralesional Normal Saline in Atrophic Acne Scars."

¹³ Bagherani and R Smoller, "Introduction of a Novel Therapeutic Option for Atrophic Acne Scars."

¹⁴ El-Amawy and Sarsik, "Saline in Dermatology."

about the procedure, even if you're in their town, they will get on an airplane and fly to another town to have the procedure.

Think about it.

You can buy a first-class ticket to anywhere in the U.S. for about a thousand bucks. If you want to fly coach, you can go round trip to most places in the US for 500 bucks or so.

They're spending two grand on a procedure. If they have the time and it's their genitals, they will go where they have connected with the provider online or in person.

And what I hear from most of our doctors (who are shocked when people fly from other places to see them) is the following: They'll ask the person, "I see you came from such-and-such town where there resides a P-Shot® provider near your home. Why did you fly to see me?"

Almost as if they're scripted, they'll say, "I watched your video on your website. I watched your video."

They want to see that the doctor who is going to treat them is all in.

Directory Upgrades and Member Visibility

I did want to show you something else before I get to the Implementation Kit. I keep forgetting to tell you guys this, but I'm really proud of this.

We upgraded our directories. It took a few months, but I want to show you what they do now.

A lot of people in the group think that's the only reason for being in the group.

There are other reasons. For example, we've had people who are making so much money, a colleague complained to the medical board.

And then I had to write a letter that said, "Look, this person does what we do. Here's 20 people that are professors of gynecology at various universities who do the same thing. Here's a hundred papers to read. This is a real protocol, a real deal."

And then it goes away.

That's happened seven or eight times now over the past 15 years.

Or someone's next door and they're advertising O-Shots for \$300 and they are not licenses to use the name, maybe not even a licensed provider.

We pay for the attorneys to make that go away, and other things.

But the directory is helpful because your patients will look to see if you're on it, but it won't do as much for you if you don't at least have a link to a page that you have.

But it will do more now than it used to.

So let me show you how it's working—one second.

Directory Functionality, Profiles, and Conversion Mechanics

Okay, I'll use [the O-Shot® directory](#) as an example.

But look at this. So now what happens is we have some popular cities, and we have people in all these states.

If you just wanted to go straight to your state, you can click that. But the search option now—you can always click there and it'll just find out where you are and then find people close to you. And you can go by zip code, and you can go by countries, or you can go by states.

But it's the other thing that happens—let me show you this and then I'll quit talking about it—but it's working a lot faster than it did.

Notice the difference: ***you can add your bio to the directory.***

And that option was not there until about—we started working on it several months ago, and we tightened it up so everything shows up prettier. That's probably not a real word, but more pretty—but it's prettier, and there's more functionality, and it's faster.

I also moved all the websites to a faster server, which a couple of weeks of my time.

So after you log in, if you look up in the right-hand corner, it'll say your name and it'll say “Edit Profile.” And if you click on “Edit Profile,” you just change it. You can change anything anytime you want. You don't have to call us.

Email Psychology, Implementation, and Positioning

Okay, let me show you the emails. You can download them, but I'll show you the science and the psychology behind them, and then we'll call it a night.

Got two minutes to make it by 30 minutes.

Okay. I'm calling it my implementation packet, and I'm committed to bringing you guys one of these every week so you can just run with it.

And remember, my suggestion is that you personalize this, because it could belong to anybody. You personalize it by at least adding your picture. Of course, you're going to change the contact info, change it to a different closing.

I usually say “Sincerely.” Some people have their little thing they say, like Roy Rogers—what do you say? “Happy Trails,” or something.

I used to say “Peace and Health,” but have a closing so you don't spend time wasting on trying to think how you want to close that out.

Okay. So this one—look at the psychology of this.

“Dear First Name.”

If you’ve been struggling with these problems—and this is written so the spam filters won’t grab it, because they will—

“Three recent scientific studies that we just talked about show that PRP helps damaged nerves.”

And then, if you want to turn that into an active link, you highlight it, copy it, and then, in the email software you use, look for the little chain link icon.

And then you just paste it.

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I’m not sure if you’re able to see all that, but that’s an active link right there. See, I just made it active. So if I click on that, it’ll take me there.

So you highlight it, and if you can’t figure it out, do my Five Notes course, and I’ll show you how to do it.

Okay. This is one of the reasons PRP-based treatments such as our O-Shot—I would change that to “my” or “our” O-Shot—can help improve, okay, natural antibacterial—this is all true.

We have so many—I forgot about this when I wrote this—but we have people talking about vestibulitis and, of course, inflammatory conditions like lichen sclerosus, but also those recurrent UTIs.

And then here I wanted to brag about the fact that we know what we’re doing. We have a protocol.

And so you get to know—just having a protocol, if you don’t brag about it, why would you sell Tylenol and just have the label say “acetaminophen”?

You are part of our group. So use the millions—literally—of money invested in our marketing and our reputation. And you have the right to do it.

So just put that in.

It helps sometimes to add the word “procedure” to emphasize the fact that it’s not just a shot.

“Treatment” is a good word. “Treatments,” “procedures.” You see how I’ll put that in so that they know it’s not just a simple shot.

Counterpoint: Cosmetic Gynecology Criticism and Evidence-Based Response

This one—I didn’t cover this one. Let me pop back over and show you that.

They were giving cosmetic gynecologists a hard time.

And remember always pay attention to your enemies, because they tell you what shield to make.

If you say to me, “You’re doing A, B, and C wrong,” great.

Now that I read that, I know I need to either correct my error, or (if the criticism is unfounded) to shield against A, B, and C, which means I can talk about it—the counterpoint to that.

I don’t want to waste time trying to convince a closed mind, but if they’re out saying that—in other words, if they say, well, we’ll use this as an example—taking advantage of women by making them feel insecure about their labia so that we can make money off of them by doing surgical procedures to their labia.

=>Dr. Runels’ Next Hands-On Workshop with Live Models and Marketing<=

Okay? That’s one of the cases they try to make in this paper.¹⁵

And we had the same thing happen when I first rolled out the O-Shot—it was that I was taking advantage of women.

Well, no, we’re not. Because 40% of women are psychologically bothered by their sexual dysfunction, and their families are strained. And research even shows their children are not as happy because of their sexual dysfunction.

So no—she’s got a problem, and I’m trying to think of a way to help her.

And the same thing with this.

And so the paper I linked to is where they criticize us. And then I show the point and the counterpoint.

So let me swap back over because I forgot to show you that paper, and then we’ll call it a night.

Sexual Dysfunction Prevalence, Distress Criteria, and AI Demonstration

Dr. Goodman—who’s in our group, Michael Goodman—is a legend. He was not only a pioneer in labioplasty, but a pioneer in endoscopic surgery. Brilliant man.

¹⁵ Syed and Anwar, “The Globally Rising Tide of Cosmetic Gynaecology.”

He published this study and others and showed that when women have labioplasty—even if it’s just for cosmetic reasons—their sexual function improves.^{16 17 18}

So if we’re helping them in the bedroom, then we’re not taking advantage of them.

Now, most of us are not surgeons. Many in our group are. Most of us are not labioplasty surgeons.

But the other thing that’s happening when I go to their conferences—at least I would say 90-plus percent of the lectures by “cosmetic” gynecologists is regarding dysfunction (not beauty alone).

It’s almost an unfortunate name (aesthetic/cosmetic gynecology), because even though it’s called cosmetic gynecology, they’re dealing with things like phimosis secondary to lichen sclerosus, where you can’t even retract the clitoral hood.

And often, the woman has seen two or three gynecologists who never even noticed. It’s tragic.

Many of us have seen that repeatedly.

And of course, the husband doesn’t know, and the wife can hardly see down there.

And all doctors—we’re trained to examine the glans penis by retracting the foreskin. And I think there are 16,000 or so men who get squamous carcinoma of the penis every year and we know how to look for it.

It’s a horrible thing to have your penis cut off.

And we were taught to check the glans penis and teach men how to retract their foreskin and keep the area clean. But the analogous instruction by physicians (retracting the clitoral hood to clean the area) is still not happening with women.

Remember that paper we talked about a lot? Only one in seven medical schools was teaching gynecologists the full clitoral anatomy.¹⁹

And so it’s no wonder that we can’t hold the husband responsible for not knowing the anatomy if the gynecologist doesn’t likely know the anatomy of the clitoris.

¹⁶ Goodman et al., “A Large Multicenter Outcome Study of Female Genital Plastic Surgery.”

¹⁷ Goodman et al., “Evaluation of Body Image and Sexual Satisfaction in Women Undergoing Female Genital Plastic/Cosmetic Surgery.”

¹⁸ Goodman et al., *The Sexual, Psychological, and Body Image Health of Women Undergoing Elective Vulvovaginal Plastic/Cosmetic Procedures: A Pilot Study*.

¹⁹ Codispoti et al., “Female Sexual Medicine.”

Not stupid people—just an inadequate education system that [we as a group](#) are trying to change.

Q&A: Prevalence of Female Sexual Dysfunction

Question: Is there a reference or source where I can reference and read about the 40% of sexual dysfunction?

“Can you give me more references about the percentages of women who suffer with sexual dysfunction?”

There’s a lot of discussion about what the actual number is, but conservatively, it’s 30 to 40%.

And the other trick is—to be counted, you have to be psychologically bothered by it.

You can’t just say, “Oh, I have dyspareunia, but I don’t care because I don’t have sex.”

If you have that, you do not have sexual dysfunction.

Among 18 studies, female sexual dysfunction ranged from 20 to 95%. The pooled estimate was 47%.

Across 135 studies in 41 countries, 41% of reproductive-age women were affected.^{20 21 22 23 24}

And yet you have one freaking medical school out of seven that teaches gynecologists how to do a history and physical on a woman with sexual dysfunction.

It’s a tragedy of medicine.

Okay. Sorry—I’m ranting. Better call it a night.

Thank you for being on the call.

Bye-bye.

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²⁰ Mitchell et al., “Estimating the Prevalence of Sexual Function Problems.”

²¹ Nappi et al., “Female Sexual Dysfunction (FSD).”

²² Jaafarpour et al., “Female Sexual Dysfunction.”

²³ Khani, “Female Sexual Dysfunction.”

²⁴ Adebisi and Carlson, “Female Sexual Interest and Arousal Disorder.”

References

- Abdelgeliel, Asmaa Sayed, Waiel F. Sayed, Wesam M. Salem, and Fatma S. Hassan. "Antibacterial and Antibiofilm Activity of Platelet-Rich Plasma under Different Activation Conditions against Multidrug-Resistant MRSA Isolated from Human Skin Abscesses." *BMC Biotechnology*, ahead of print, December 8, 2025. <https://doi.org/10.1186/s12896-025-01078-x>.
- Adebisi, Omoniyi Y., and Karen Carlson. "Female Sexual Interest and Arousal Disorder." In *StatPearls*. StatPearls Publishing, 2025. <http://www.ncbi.nlm.nih.gov/books/NBK603746/>.
- Aggour, Reham L., and Lina Gamil. "Antimicrobial Effects of Platelet-Rich Plasma against Selected Oral and Periodontal Pathogens." *Polish Journal of Microbiology* 66, no. 1 (2017): 31–37. <https://doi.org/10.5604/17331331.1235227>.
- Asghar, Aneela, Zahid Tahir, Aisha Ghias, Usma Iftikhar, and Tahir Jameel Ahmad. "Efficacy and Safety of Intralesional Normal Saline in Atrophic Acne Scars." *Annals of King Edward Medical University* 25, no. 2 (2019): 2. <https://doi.org/10.21649/akemu.v25i2.2867>.
- Bagherani, Nooshin, and Bruce R Smoller. "Introduction of a Novel Therapeutic Option for Atrophic Acne Scars: Saline Injection Therapy." *Global Dermatology* 2, no. 6 (2016). <https://doi.org/10.15761/GOD.1000159>.
- Beitzel, Knut, Donald Allen, John Apostolakos, et al. "US Definitions, Current Use, and FDA Stance on Use of Platelet-Rich Plasma in Sports Medicine." *The Journal of Knee Surgery* 28, no. 1 (2015): 29–34. <https://doi.org/10.1055/s-0034-1390030>.
- CI, Karan, Madhan Jeyaraman, Naveen Jeyaraman, Swaminathan Ramasubramanian, Manish Khanna, and Sankalp Yadav. "Antimicrobial Effects of Platelet-Rich Plasma and Platelet-Rich Fibrin: A Scoping Review." *Cureus*, ahead of print, December 30, 2023. <https://doi.org/10.7759/cureus.51360>.
- Codispoti, Nicolette, Olivia Negris, Monica C Myers, et al. "Female Sexual Medicine: An Assessment of Medical School Curricula in a Major United States City." *Sexual Medicine* 11, no. 4 (2023): qfad051. <https://doi.org/10.1093/sexmed/qfad051>.
- El-Amawy, Heba Saed, and Sameh Magdy Sarsik. "Saline in Dermatology: A Literature Review." *Journal of Cosmetic Dermatology* 20, no. 7 (2021): 2040–51. <https://doi.org/10.1111/jocd.13813>.

- Goodman, Michael, Samantha Fashler, John R Miklos, Robert D Moore, and Lori A Brotto. *The Sexual, Psychological, and Body Image Health of Women Undergoing Elective Vulvovaginal Plastic/ Cosmetic Procedures: A Pilot Study*. 28, no. 4 (2011): 9.
- Goodman, Michael P., Otto J. Placik, Royal H. Benson, et al. "A Large Multicenter Outcome Study of Female Genital Plastic Surgery." *The Journal of Sexual Medicine* 7, no. 4 (2010): 1565–77. <https://doi.org/10.1111/j.1743-6109.2009.01573.x>.
- Goodman, Michael P., Otto J. Placik, David L. Matlock, et al. "Evaluation of Body Image and Sexual Satisfaction in Women Undergoing Female Genital Plastic/Cosmetic Surgery." *Aesthetic Surgery Journal* 36, no. 9 (2016): 1048–57. <https://doi.org/10.1093/asj/sjw061>.
- Jaafarpour, Molouk, Ali Khani, Javaher Khajavikhan, and Zeinab Suhrabi. "Female Sexual Dysfunction: Prevalence and Risk Factors." *Journal of Clinical and Diagnostic Research : JCDR* 7, no. 12 (2013): 2877–80. <https://doi.org/10.7860/JCDR/2013/6813.3822>.
- Khani, Ali. "Female Sexual Dysfunction: Prevalence and Risk Factors." *JOURNAL OF CLINICAL AND DIAGNOSTIC RESEARCH*, ahead of print, 2013. <https://doi.org/10.7860/JCDR/2013/6813.3822>.
- Litwinowicz, Kamil, Marcin Choroszy, and Anna Wróbel. "Strategies for Reducing the Impact of Cycling on the Perineum in Healthy Males: Systematic Review and Meta-Analysis." *Sports Medicine (Auckland, N.z.)* 51, no. 2 (2021): 275–87. <https://doi.org/10.1007/s40279-020-01363-z>.
- Lui, Hansen, Nnenaya Mmonu, Mohannad A. Awad, et al. "Association of Bicycle-Related Genital Numbness and Female Sexual Dysfunction: Results From a Large, Multinational, Cross-Sectional Study." *Sexual Medicine* 9, no. 3 (2021): 100365. <https://doi.org/10.1016/j.esxm.2021.100365>.
- Mitchell, Kirstin R., Kyle G. Jones, Kaye Wellings, et al. "Estimating the Prevalence of Sexual Function Problems: The Impact of Morbidity Criteria." *Journal of Sex Research* 53, no. 8 (2016): 955–67. <https://doi.org/10.1080/00224499.2015.1089214>.
- Nappi, Rossella E., Laura Cucinella, Silvia Martella, Margherita Rossi, Lara Tiranini, and Ellis Martini. "Female Sexual Dysfunction (FSD): Prevalence and Impact on Quality of Life (QoL)." *Maturitas* 94 (December 2016): 87–91. <https://doi.org/10.1016/j.maturitas.2016.09.013>.
- Panara, Kush, John M. Masterson, Luis F. Savio, and Ranjith Ramasamy. "Adverse Effects of Common Sports and Recreational Activities on Male Reproduction." *European Urology Focus* 5, no. 6 (2019): 1146–51. <https://doi.org/10.1016/j.euf.2018.04.013>.
- Pandit, Meghana, John O L Delancey, James A Ashton, Jyothsna Iyengar, Mila Blaivas, and Daniele Perucchini. *Quantification of Intramuscular Nerves Within the Female Striated Urogenital Sphincter Muscle*. 2005.
- Pipitone, Fernanda, Zhina Sadeghi, and John O. L. DeLancey. "Urethral Function and Failure: A Review of Current Knowledge of Urethral Closure Mechanisms, How They Vary, and How They Are

Affected by Life Events.” *Neurourology and Urodynamics* 40, no. 8 (2021): 1869–79.
<https://doi.org/10.1002/nau.24760>.

Sethi, Dalip, Kimberly E. Martin, Sangeeta Shrotriya, and Bethany L. Brown. “Systematic Literature Review Evaluating Evidence and Mechanisms of Action for Platelet-Rich Plasma as an Antibacterial Agent.” *Journal of Cardiothoracic Surgery* 16, no. 1 (2021): 277.
<https://doi.org/10.1186/s13019-021-01652-2>.

Shin, Jung-Won, and Chang-Hun Huh. “Updates in Treatment for Androgenetic Alopecia.” *Annals of Dermatology* 37, no. 6 (2025): 327–35. <https://doi.org/10.5021/ad.25.042>.

Syed, Shamail A, and Asila Anwar. “The Globally Rising Tide of Cosmetic Gynaecology: Are Providers Aware of the Ethical Aspects?” *Cureus*, ahead of print, November 7, 2025.
<https://doi.org/10.7759/cureus.96327>.

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