## Summit Introduction

Hey, where are your co-hosts. Of the beyond infertility Summit. Dr. Carrie and Dr. Aumatma. And we have an incredible. Lineup of speakers for you. In addition, Dr.

Aumatma and I have created a mini crash course for, you know. Every day you can expect a Mini lecture from us covering. Foundational content. Helping you gain.

Context and insight before deep diving into the day's interviews. We hope that this will serve as a helpful context to get deeper understanding through the day's interviews.

Hello, I'm your co-host, Dr. Carrie Jones. And today we're going to talk about all the reasons for an ovulation.

## How Ovulation Is Controlled

inovulation is when you don't release the egg, you don't ovulate. Now, let's do a quick little recap of the menstrual cycle, because what happens is that your brain tells your ovaries what to do.

So we think that the ovaries are the one directing the show, but really it's your brain that's directing the show. So you've a part of your brain called the hypothalamus.

I didn't name it. I know you have the hypothalamus. And then the hypothalamus tells the pituitary a different part of your brain, and then the pituitary tells your ovaries, and it's done in a pulse like fashion.

Think like Morse code, so, or a text message. So the hypothalamus will say, hey pituitary, tell the ovaries to make estrogen estradiol. And then the pituitary goes not a problem and it will pulse out a hormone called FSH follicle stimulating hormone.

And then that will go down to the ovaries. And the ovaries are like, cool, let's make estrogen. When it's time to ovulate the hypothalamus tells the pituitary time to ovulate make LH luteinizing hormone and outcomes luteinizing hormone goes down to the ovaries and the ovaries are like, Let's do it.

Let's release the egg. Go ahead, ovulate. But if that pulse gets messed up at all, if that Morse code is read wrong, or if there is no Morse code, no text messages sent, then the poor ovaries are left waiting around going, Do I ovulate do I not ovulate?

What am I supposed to do right now? So let's just talk about some common reasons that you may not be ovulating. One of the big reasons, of course, is age.

And I hate to say it, but in once women get into the perimenopausal range, they tend to ovulate less or not as well, not as robust as somebody who's younger.

## Age, Brain Injury, and Medications

Of course, once she's fully menopausal, doesn't have a period anymore. She doesn't ovulate. She doesn't release the egg. Now, other reasons, because it starts in the brain.

Think of any kind of head trauma, traumatic brain injury. So if anybody has had, let's say, a car accident recently and they hit their head, they may notice their next several cycles, especially if it affected their hypothalamus and pituitary, that they don't ovulate.

So we do have to be aware of any kind of head trauma. There are certain medications. Obviously, the big one that

comes to mind are the birth control pills.

The birth control pill will suppress ovulation. That's how it works. It's how it stops the egg release. Therefore, sperm can't meet egg and implantation can't occur.

The IUD, the progestin IUD. Now, I understand this is a fertility summit. However, I do want you to understand everything. So the progestin IUD, which is the marina, the Skyla, the Kyleena, these are the names of them.

They do have an increased risk of decreasing ovulation or blocking ovulation. Now you can have other reasons hypothyroidism or hypothyroidism, so too little or too much thyroid can interfere with the brain pulses and cause someone not to release an egg.

Really high stress. If you think about it, the brain is in charge. So if the brain keeps getting a signal fight or flight fight or flight stress, stress, stress, then producing an egg that month and getting pregnant is not ideal.

The brain is thinking, hmm, I don't think this is the healthiest month to get pregnant, so let's not do it. So if you've been under significantly high stress, even if it's something such as traveling a whole bunch of time, different time zones, I've seen women say, Oh my gosh, I travel to Europe and back.

And while I had a wonderful time on my trip, my next cycle was kind of crazy and I'm like, Yeah, the body registers a lot of movement, a lot of time zone changes, even good travel can be stressful and the eating is different, everything's different.

And so it could interfere with ovulation the next month. But stress can also be bad. It may be a really particularly bad month at work with family and with life.

## Stress, Illness, and Pain Medications

Events like a lot can happen. Another reason is illness. If you've recently had any kind of bacteria or virus, you've had the flu that can also affect your ovulation.

So being sick is a register to the brain. Maybe not this month. Let's not release the egg this month because we need to recover from the illness and we'll we'll try again next month.

Now, if you have been chronically sick, chronically bad or battling bacteria or viruses, etc., then that also chronically could be getting in the way of ovulation and for sure something to look at.

One of the medications that I did forget to mention are opioid pain medications. So if you are on or have been on opioid pain medications, so you've had some sort of surgery or you have back pain or migraines and you sometimes use opioid pain medication that will suppress ovulation.

And there is even some research to show that using over-the-counter at let's say, NSAIDs, your over-the-counter over-the-counter pain medications, using them consistently every day, let's say every day you have a headache.

And every day in the first part of your cycle, the follicular phase you are popping a pain medicate over-the-counter pain medication. There is some literature to indicate that that is going to get in the way of ovulation and is just something to be aware of.

Now another reason polycystic ovary syndrome. So PCOS women with PCOS because of the the shift in the signals so the LH hormone that luteinizing hormone MSH the androgens produced if insulin is high, the whole physiology is what we call it a PCOS.

## PCOS, Surgery, and Under-Eating

One of the known outcomes is a lot of the hormone pulses, the Morse codes, the texts aren't doing what they

should do. Insulin is getting in the way. And the outcome is, I'm not going to ovulate this month.

I'm not going to do it. So if you have or suspect PCOS, that is likely the reason for an inovulation. Now there could be a variety of other. So for example, if you've had any kind of surgery lately like big events, again, I mentioned stress.

But just as a reminder, if let's say you've had endometriosis surgery where you're working on cleaning up all your endometriosis, it's also possible it's going to affect ovulation that month and maybe the next couple of months just because of the impact surgery does have on the ovaries.

And so you do want to keep that in mind. You want to make sure that if you are under eating, if you have you're currently had some sort of disordered eating that the under eating can tell the brain now is not the right month to release an egg and to get pregnant.

The body is trying to preserve the nutrients and preserve the food. So something to keep in mind. And nowadays under eating, I'm seeing while disorder eating can be the reason if somebody is on because this is very common and I need to bring this up.

If you are on a GLP one agonist, let's say you're on Semaglutide or Ozempic or Mounjaro. And what it can do for a lot of women is that while the medication itself may not affect ovulation, the lack of appetite, eat it often for a lot of women causes appetite decline.

And so they do drop their calorie amount. That could cause an impact on ovulation. So if you are on any of those GLP one agonist medications and you've noticed since going on them, you are not ovulating.

## GLP-1s and Over-Exercise

Just keep that in mind that that could be a reason in the medication world and under eating now over exercising can be a big reason as well. So if you have been questioning whether your exercise and how much you're exercising is impacting it, such as and this is these are real world examples.

I was I messaged from a woman who said, I work out twice a day, I do peloton in the morning and then I go to some sort of boot camp or yoga class or something in the after work.

But my cycle is really irregular. Do you think that's playing a role? My athletes who were training for marathons for 5Ks. For 10Ks, my chronic hit high intensity workout women who are doing it most days of the week.

My cross fitters who don't take many breaks, who are trying to keep up with the class and maybe it's too much for them. Those all of those can really impact ovulation because again, while we use exercise either for health to thrive, to reduce stress, if it's too much for the body, it's going to show up as women in our ovulation.

It's going to unfortunately negatively impact ovulation. So maybe examining how much are you working out? How many classes are you going to do? You feel rejuvenated after it?

You feel depleted afterwards. Are you doing two days? Are you a marathoner or a triathlete or an endurance something? And that is the reason a dancer that is pushing, pushing, pushing and it also will you get good feedback on that as well is if you are getting injuries and not recovering like you should, if you're getting the soft injury, tissue injuries, tendons, ligaments, and you recover enough to keep going, but then you get injured again.

Imagine that's what it's doing, the wear and tear on the tendons, soft tissue and ligaments. But imagine how the brain is perceiving that and then impacting down to the ovaries and to, of course, ovulation.

Now, there are other reasons for an ivy lesion, but those are really honestly the big ones that you want to work up with your practitioner you really want to examine.

And some of these you can cross out some of these if you're like, I am not on a GLP one, I don't have an IUD, I am not on the birth control. I don't use opioids. Right?

## Thyroid, Insulin, and Next Steps

If you're like, I'm not I'm not an endurance athlete or I definitely don't feel like my my exercise is impeding me and the cross those off the list. But if you're thinking to yourself, gosh, you know, it's been a while since I've had my thyroid tested.

You really want to test that whole thyroid? You really want to look at what's called TSH thyroid stimulating hormone. You want to look at the free markers, free T4, free T3.

You should consider the thyroid antibodies check for Hashimoto's which can get in the way of fertility and ovulation of course. And thankfully you can be very proactive about it, but it's you need to know ahead of time if it's been a while since you've had your glucose and insulin checked, if you maybe suspect that PCOS plays a role, then you can absolutely have that worked up, etc..

And so by listening to this list, you can go, okay, what is going on with my ovulation? Yes, I've been sick recently. All right. I wonder if that's what it is or.

Yes, I haven't actually been dealing with chronic chronic virus, whatever that looks like. And it's really gotten my health. No wonder I'm not ovulating.

Ovulation is not a priority. It is not critical to your survival. Therefore, the body is going to prioritize its resources to heal you wherever you need it, any other places.

So by understanding this list, then you can you can get worked up, you can be proactive, you can talk with your practitioner about it. And that's what this little snippet is for.

This little snippet of educational information is to help you create a list, be proactive and understand maybe why are you ovulating and what can we do to bring that to light and then get you ovulating again.

So again, I am the co-host, Dr. Carrie Jones, and I hope you found this helpful.