PATIENT POWER

Northwestern Memorial® Hospital

Contraception Options

Webcast

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Introduction

Andrew Schorr:
Hello and thanks for joining us once again on nmh.org and the Patient Power programs we do every two weeks. I'm Andrew Schorr, and I'm delighted that every two weeks we can connect you with another medical expert associated with Northwestern Memorial Hospital. And they are some top folks.

Today we're going to talk about reproductive health. And so when you think about it for women, you know, what's right? The pill? Having your tubes tied, as women say? A shot? Some implanted device? What are the benefits of some? What are the risks? Can you switch from one to another? Does any of them provide any disease prevention? We worry about that if you're sexually active. Lots of questions.

Let's meet our expert today. That's Dr. Gil Weiss. Dr. Weiss is a gynecologist associated with Northwestern Memorial. He's also a clinical instructor at the brand new beautiful Prentice Women's Hospital at Northwestern.

Dr. Weiss, thanks for being with us.

Dr. Weiss:
Thank you, Andrew.

Andrew Schorr:
Dr. Weiss, help us get our arms around this topic, reproductive health for women, and when we think about contraception, what are the options today, both what's new, what's safe, what's proven. Help put it in perspective, and then we'll get more specific as we go along. And we've already received lots of questions from our listeners.

Contraception Today

Dr. Weiss:
Thank you, Andrew. As you know, contraception is generally at the forefront of women's health. I think the recent data I've seen is from 2000. Currently the worldwide population is roughly in the area of six and a half billion with an annual

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increase of about between I think it was 30 and 35 million people a year. So contraception is definitely at the forefront of women's health. And there are many different options available in women's contraceptive health, more traditional means and of course newer ways of achieving their contraceptive needs.

Andrew Schorr:
So traditionally we think of obviously a man could wear a condom, but beyond that women take the pill, and of course sometimes women take the pill for other reasons beyond contraception, and we can talk about that too. There are implanted devices now. There is a ring I think a woman can have. There are IUDs that I know are used worldwide, intrauterine devices. And then I think you have new ways of doing tubal ligations or having your tubes tied.

Let's start with what's new first.

Dr. Weiss:
Well, there are many different new methods of contraception, and we can classify them in terms of reversible and irreversible. The IUD, and it stands for intrauterine device, is definitely making a comeback. In the United States traditionally in the 1970s the Dalkon Shield was one of the first IUDs that was mass marketed in the United States, and due to issues with the IUD it was with withdrawn from the market because of its increase risk of infection. So although IUD use worldwide increased, within the United States it really took a dive.

And currently there are two IUDs on the market that present different advantages and disadvantages. There is a nonhormonal copper IUD which is good for up to ten years and provides excellent form of contraception. The actual typical pregnancy rate using a copper IUD is less than one percent for every year of usage. So it's definitely very effective. It is very reasonably priced and in fact over the long run has definite financial advantages over using oral hormonal contraception. The two probably biggest disadvantages of using the copper IUD involves some additional bleeding during a woman's menses and additional cramping. So patients who have heavy periods to begin with are not very good candidates for this copper IUD.

The other option available is the hormonal based IUD, and the hormone is progesterone. Progesterone is the primary hormone in this IUD that acts as a contraceptive agent. It's definitely much more popular in Europe than it is in the United States, but it has a growing segment of the population. Its major advantages are the fact that a certain number of women, up to 20 percent of women after the first year will no longer have a monthly period, and that's just due to the hormonal effect on the uterus. The lining of the uterus that's shed every month is thinned out, and some women definitely consider that to be a positive, if you can call it, side effect.

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The disadvantage of course is that it is hormonal and that it is only good for five years. So IUDs are definitely very, very good forms of contraception. They are what some of my younger patients would call low maintenance contraception. They reduce what we call user failure. Once they're inserted correctly they are definitely very good forms of birth control.

Permanent Contraception

Andrew Schorr:
Okay. Now, what about a women, particularly a woman who has had all the children she wants and she says, Well, can you tie my tubes. How are you doing that, and are you doing some just as in-office procedures?

Dr. Weiss:
Permanent contraception is definitely an option and it's one of the most popular forms of contraception in the United Nations. The newest candidate is the hysteroscopic tubal sterilization, otherwise known as Essure. It was approved in the United States in 2002. It provides another means of sterilization. The more traditional means of sterilization involves taking a patient to the operating room, administering general anesthesia and using a laparoscope, which is essentially a camera that we insert through the belly button, and at this point we burn the tubes and disrupt the continuity between the ovary and the uterus making sure that fertilization cannot occur.

So this is the more traditional laparoscopic tubal ligation. It involves taking someone to the operating room, administering general anesthesia and making a cut in their abdominal wall or their tummy. So there's definitely a recovery period and definite risks associated with general anesthesia.

The other method of sterilization is the Essure tubal sterilization. What does that involve? That involves using a very, very small camera, and the analogy I frequently use is that the size of the camera is traditionally the size of the circumference of a pen. So if I were to show you a pen and show you the tip of that, that's the size of the camera.

Andrew Schorr:
Wow.

Dr. Weiss:
And it's placed through the cervix into the uterus, and once we see the entrance to the tubes they are blocked or plugged. Now, what is the size of the actual plug? To continue with the pen analogy the actual spring inside a normal pen is extremely small, and that's the size. Now, these inserts or these plugs cause your tubes to naturally scar. The scarring process takes about three months, so once we insert

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them we recommend that the patient use three months of backup birth control. And at the end of the three months the patient arrives back in the hospital and we do a quick outpatient procedure injecting some dye into the uterus to confirm the tubes are blocked.

So, now, the advantage of this procedure are under special circumstances they can be performed in the office. The circumstances are essentially if the physician is trained to do this. So in our particular office we perform 98 percent of these Essures in the office under minimal to no anesthesia, which means the patient will usually arrive, let's say, at nine o'clock in the morning and by 10:30 they are sterilized, out the door and back at their work. In fact we schedule some during patients' lunch time so that they arrive at twelve o'clock and they're back in the office at 1:15.

Andrew Schorr:
Oh, my.

Dr. Weiss:
It involves minimal to no anesthesia, just some local anesthesia. The patients are fully awake. It involves no incisions in their abdomen, so recovery is excellent.

The advantages of this procedure, as you can imagine, are really recovery. The procedure doesn't involve any incision. You can do it in the privacy of your doctor's office. Now, the disadvantage more than anything else is that reversal of this procedure is extremely difficult. The difference conceptually is that when we do the hysteroscopic tubal sterilization, the Essure procedure, we're kind of blocking the junction of the tube and the uterus versus doing a tubal ligation where we disrupt the tube anywhere along the tubal length. So conceptually it's very difficult to understand why you can't reverse the Essure the same way that you might be able to reverse a tubal ligation.

Andrew Schorr:
All right. It sounds like quite an advance, actually, if a woman has said either I never want to have kids or I've had children and I don't want to have any more.

Dr. Weiss:
It's definitely an advance. Like I said, it's done in the office with minimal to no anesthesia. Now, which patients are not good candidates for an Essure. One of the first things I would say is someone who is not a hundred percent sure that they want sterilization, can't come in to their physician and say with a hundred percent certainty, I do not want any more children. This method, as I said, more than any other method is not reversible.

The other interesting aspect of it is the actual coils, and that's what these inserts

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are. They're tubular coils with a little bit of fabric in the middle and the fabric kind of causes the ingrowth. These coils are made out of nickel and titanium, so anyone who has any nickel allergy, so jewelry or anything that causes an allergic reaction, is not a good candidate.

Anyone who has had any tubal surgery in the past once again would probably not be a very good candidate for that type of sterilization.

Andrew Schorr:
Okay. Let's move on. And, by the way, Essure is spelled E-S-S-U-R-E, is that right?

Dr. Weiss:
Yes.

Andrew Schorr:
So people can ask about that. We talked about the IUDs making a come back.

Dr. Weiss:
Yes.

Oral Contraception

Andrew Schorr:
But certainly we've had pills around for a long time. Where are we with the hormonal pills as far as their reliability and safety?

Dr. Weiss:
Well, combination pills in general are very reliable. The one thing that needs to be understood by everyone is that there is a theoretical efficacy, if we can say, versus an actual efficacy. The theoretical efficacy of contraceptive pills in general, and what we're talking about are pills that contain estrogen or progesterone, is in the area of less than one percent. So less than one percent of women could expect pregnancy if they use the oral contraceptive pill.

In reality, a more practical aspect, somewhere in the order of six to eight percent. Which means that if the average person were to use the pill between six and eight percent might conceivably get pregnant on that. But most contraceptive pills contain two components, an estrogen component and a progesterone component. The progesterone component is the primary component that prevents ovulation and therefore acts as a contraceptive agent. The estrogen component in general augments or helps the effect of the progesterone. It also has an impact on bleeding. So those are the two main components of pills.

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In the past traditionally pills were always taken in a 21 and seven pattern. What do I mean? 21 days of hormone followed by seven day pattern. This usually was a result of the early, early research in birth control pills, and the reason for that in particular was that the original inventors of the birth control pill were hoping to market the pill to the masses as a form of rhythm like or more natural contraception, something that followed the normal menstrual cycle.

In reality nowadays more and more pills are going away from that traditional aspect. So instead of having the normal 21 days of hormones and seven days of sugar pills during which you bleed, we're going more towards shortening this bleeding period. So you can have 24 days of hormones, four days of bleeding, or you may just skip the sugar pill altogether and take three months of hormones on a continual base and then have a period every three months. So those are some of the new aspects of hormonal contraception as well.

So we're kind of evolving away from these more traditional three weeks of hormones, one week of sugar pills and evolving into more longer lower-dose pills. Now, most of the pills nowadays are very, very low dose. In comparison to older pills the pills that we're using contain about 20 percent hormones in comparison to the older ones. So we're talking substantially less hormones, however we've still maintained the contraceptive efficacy.

Other Forms of Hormonal Contraception

Andrew Schorr:
Let me ask you this, Dr. Weiss. There are other delivery systems too. I think there's a ring and there are implanted devices. Describe those briefly and where they fit in. And the shot as well.

Dr. Weiss:
So we traditionally talk about oral contraception as pills, but there are other forms of hormonal contraception that work just as well. There is a shot that of a progesterone like contraception. As we mentioned previously, the progesterone component is really the one that acts as a contraceptive agent. The shot can be administered every three months and is a very, very good form of contraception for patients who have issues of taking pills, who have what we call user failure, who are worried that they won't be able to take a pill every day. The oral contraceptive pills work very, very well if they are taken every day.

For patients who are not good candidates for daily pills the medroxyprogesterone or Depo shot every three months works very, very well. Some of the side effects of the shot include some breakthrough bleeding and some breast tenderness which tends to dissipate as the user progresses over time. I primarily use the medroxyprogesterone or the shot in patients who are very young, who are sexually

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active, who I believe would not be good candidates for daily pill-taking.

The other options available include implantable hormones, which are once again progesterone-based contraceptives that are implanted under the skin for a varied period of time. The other new product is a plastic ring that contains a progesterone and estrogen component, just like we talked about in the past. The advantage of this ring is that the patient inserts within herself and the hormones are released and absorbed from the vagina. This ring contains the lowest amount of hormones out of all hormonal contraception and provides a very what some of my patients would call low maintenance form of birth control. The ring is inserted and remains in the vagina for three weeks. It is removed, a period ensues, and a new ring is inserted.

So, once again, candidates are patients who would like what I would term as low maintenance birth control, patients who do not want to have to remember to take the pill every day, patients who want a very low-dose birth control. Once again, the ring contains the lowest amount of estrogen component out of all the hormonal options. It is very easy to use. Most of the patients love it.

Andrew Schorr:
Dr. Weiss, I have two other areas I want to ask you about related to contraception. The first is sort of a physical barrier. The diaphragm, that's been around for years. Where do we stand with physical barriers on the female side?

Dr. Weiss:
Well, physical barriers on the female side really have been around for a long time and do provide a viable option. They've generally fallen out of favor in terms, the most classic is the diaphragm or the contraceptive sponge. They've been around for a long time, and there is probably a core percentage of women who use it and are very, very happy. But primarily their disadvantages are that they have to be placed inside a woman's vagina prior to intercourse, and they have to remain there afterwards. They do require a certain degree of knowledge of anatomy, of your own self anatomy in order to use them. So they're definitely around and they're definitely a viable option, but they're probably not at the top of the list.

Andrew Schorr:
Okay. And then what about if you didn't do any of this. The whole morning-after pill, emergency contraception?

Dr. Weiss:
Well, emergency contraception is definitely, definitely a good thing to have around. So what is it and how do we essentially use it? Emergency contraception is a progesterone-based pill that women can take ideally up to three days after having unprotected intercourse. What it pill does is it reduces the chances of getting

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pregnant by 75 percent. Now, some studies have shown that you can take it beyond the three days, up to five days, but that definitely reduces its effectiveness.

So I know particularly in Illinois that over the age of 18 a prescription is not required, and several pharmacies do carry this on a routine basis. I usually provide all my patients who are using any barrier contraception with a prescription for emergency contraception, or plan B, just in case there are any accidents.

Andrew Schorr:
Okay. Thank you for that overview.

Essure Permanent Sterilization

Andrew Schorr:
We've got lots of questions that we want to cover, and so let's see what we've gotten in via e-mail from our listeners. This one is from Janice in Chicago. She says, "What are the benefits of the Essure permanent sterilization compared to getting my tubes tied?" So I think you went over that. One is an operating procedure versus an in- office procedure, right?

Dr. Weiss:
Correct.

Andrew Schorr:
Now, if a woman, let's say, were having an cesarean section though, gave birth to a child, it would be reasonable to say to the obstetrician, Could I have my tubes tied at the same time.

Dr. Weiss:
Exactly. The Essure provides a noninvasive, or minimally invasive, rather, I should say form of sterilization. If someone is undergoing a cesarean section or repeat cesarean section then definitely the more traditional tubal ligation is a better option.

Listener Q&A

Andrew Schorr:
Okay. And then Erica in Joliet, she actually had a question that relates to that. She said, "I recently remarried and I think I may want another child. How difficult and effective is reversing a tubal ligation?" So the one you do in the operating room, where do we stand now with that being reversible if that's what she had?

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Dr. Weiss:
Conceptually when you do a tubal ligation in the operating room you either remove or you burn a part of the tube. So depending on what type of laparoscopic tubal sterilization the patient underwent she might be a good candidate for reconnecting of the existing tube. On the other hand the reconnection of this tube is not usually perfect. So what are we concerned about when a patient does decide to have her tubes reconnected after tubal ligation? We're concerned that in the future the tubes might not be open despite the best efforts of our excellent physicians. The other thing to be concerned about is that the patient might be at increased risk for an ectopic pregnancy. That is a pregnancy that occurs outside the uterus. What usually happens, when we reconnect the tubes there might be some scar tissue that forms rather than the smooth muscular organ the way the fallopian tube is. This scarring may increase the risk of an egg implanting in there causing that, and that eventually becomes an emergency.

Andrew Schorr:
So something to think about. So you really don't want to go into having a tubal ligation in the first place without giving it a lot of thought, for sure.

Dr. Weiss:
That is probably the most important thing. Personally if the patient is not a hundred percent confident in their decision, we definitely have discussed some of the other options available. Really, patients have to consider and be totally confident with the fact that they do not want any more children.

Andrew Schorr:
Right. Here's a question we got from Lisa in Chicago. She writes, "I have used plan B twice in a year and a half. Is there any permanent harm in using this as a back-up method of birth control?"

Dr. Weiss:
Using emergency contraception multiple times within a certain period definitely does not have any harm, but it is not intended to be used on a continuous basis. If you remember we talked briefly that emergency contraception is about 75 percent accurate, or I should say effective is a better term, which means that three out of four times if you were to use it you would not get pregnant. I think this patient probably needs to discuss with her physician a better form of contraception. Using one of the many combination birth control pills, progesterone, estrogen pills, would be more effective for the patient, 90-plus percent effective, and I'm sure we could find an option for her that would have minimal side effects.

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Andrew Schorr:
Dr. Weiss, here's one from Terry in Chicago. Terry writes, "Several years ago I was on the Depo Provera shot. I gained a lot of weight and had terrible headaches. I want to get back on birth control but fear the side effects. What seems to be the most effective birth control with the least adverse effects?"

Dr. Weiss:
Well, most people, for most physicians, even for patients, it's kind of difficult to take a look at a patient and say this will be the best pill for you. We do have many options available now over the last couple years that many patients really, really enjoy. There are different ways of delivering these hormones. For example we talked about the ring. We talked about the fact that pills nowadays are very low-dose hormones. These low doses tend to have very low side effect profiles. There is an IUD which, like I said, is definitely making a comeback in terms of its use. IUDs are very good for patients who want, like I said, low-dose birth control that is low maintenance.

There are nonhormonal forms of birthday control we've talked about as well such as the copper IUD, which we talked about as well. So there are many, many different options out there, and it's just a matter of finding one that's good for this patient.

Andrew Schorr:
Now in this environment as people may be sexually active you worry about disease. So do any of these approaches provide any protection for example against HIV?

Dr. Weiss:
Hormonal contraceptives do not provide protection against HIV. The only form of contraception that provides some protection against HIV is condoms. So birth control pills, IUDs, tubal ligation, Essure, all these forms of contraception do not provide protection against HIV.

Andrew Schorr:
You've mentioned about hormones and reducing the hormone levels. Over the years there's been a lot of discussion about whether hormones in one form or another, particularly women let's say later in life going through menopause, whether the use of hormones was putting them at risk for cancer. So where are we now when you talk about birth control pills in these very small doses? Any risk of any other illnesses?

Dr. Weiss:
It's very controversial. What we do know is that low-dose birth control pills and birth control pills in general have many advantages. They definitely have been shown to reduce your risk of ovarian cancer, they've been shown to reduce your risk of uterine cancer, and breast cancer is still controversial. But the advantages

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of oral contraceptives beyond their contraceptive effects are definitely growing, and people are embracing these pills as good for a women's health overall rather than her reproductive needs.

Andrew Schorr:
Let's say you had a daughter, I don't know if you do, you're not concerned at this point about the doses of these medicines you're using versus some sort of other shoe dropping with a serious illness later on?

Dr. Weiss:
I'm not concerned. Like I said, when the pills originally came out in the late 60s and early 70s they were very high-dose pills. The pills we currently use right now are about 20 percent of the original dose that was used, and they decreased them dramatically without having a change in their effectiveness. So I think that we're definitely going in the right direction in terms of reducing the hormone levels while keeping their effectiveness the same. And I think that's where the general trend is going to be going in hormonal contraception.

Spermicides

Andrew Schorr:
Okay. Let's just talk about some other real basic things we maybe want to touch on. So for years there have been foams and gels as well. Any place for those any more?

Dr. Weiss:
There are other forms like foams and gels, and I kind of categorize them under spermicides, and they are in theory effective, but there are definitely other forms of contraception now that would be better. Their actual risk in spermicides, which is what essentially foams are, is about 25 percent. So the pregnancy rate using them is about 25 percent, which is fairly high.

Andrew Schorr:
Woe, you're playing Russian roulette.

Dr. Weiss:
Exactly. So if we have patients who are particularly good gamblers then they might consider, but in reality the spermicides do not, I believe, have a major role.

Andrew Schorr:
Right. And I guess I would say if you were putting your hopes on the withdrawal method, which somebody wrote in about, that would be quite a gamble too.

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Dr. Weiss:
Yes. That also has a very high pregnancy rate, around 25 percent as well. So between spermicide and withdrawal or the rhythm method those are pretty high failure rates. I mean, most people would not board an airplane if the airline said there is a 75 percent chance that you will arrive at your destination.

Andrew Schorr:
Right. That's for sure.

Well, in listening to you, if I take all this together as we sum up, you have more approaches than ever now, and it sounds like the safety and the efficacy of these newer approaches is really quite good. A woman has a lot of options now.

Dr. Weiss:
The way I see it, it's kind of intoxicating because we have so many options nowadays that it's just a matter of finding the correct choice for the patient. There are so many different options available now that there is really no reason that we can't find an appropriate contraceptive method for any patient that we encounter.

Andrew Schorr:
Thank you for taking us through this, Dr. Gil Weiss, who is a gynecologist and obstetrician at Northwestern Memorial Hospital and also a clinical instructor at the new Prentice Women's Hospital. Thank you so much for helping us understand this and being on our Patient Power program.

Dr. Weiss:
Thank you very much. Thank you for having me.

Andrew Schorr:
Sure. You've been listening to Patient Power sponsored by Northwestern Memorial Hospital. We do this every two weeks. We always invite your questions.

On February 12 we'll have a new problem on a heart issue, atrial fibrillation, the complications and the cures with expert from Northwestern, Dr. Richard Lee. Thanks for joining us.

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