IVF Medications

If In Vitro Fertilization (IVF) was a movie, the medications would be the villainous sidekicks, not menacing, but annoying, prickly and unwanted (picture the hyenas in any Disney movie). We all know that they are essential to the plot, but you still wish you could get to the end of the movie without ever encountering them. Like these the injections are the bad guys, maybe you heard horror stories about them from a friend or colleague, or you’ve seen posts on social media of people making weird cakes with their used syringes. As a result, you grit your teeth, prepare yourself for the worst, dive in give yourself your first injection and realize that it’s not that bad. As the days progress, you go from feeling relief to, believe it or not, a sense of empowerment.

Huh? How could that be?

Let’s back up a little. Fertility meds come in many forms: pills, patches, nasal sprays or injections, depending on the type of medication. Oral medications are usually the first step for those proceeding with fertility treatments, but they are not strong enough to provide the response that we desire during an IVF cycle. Once you make the decision to do IVF, we need to use injectable medications that directly stimulate the ovaries to produce multiple follicles (fluid-filled sacs that contain eggs or oocytes that look like black circles on ultrasound). These injections are subcutaneous, like insulin injections, and utilize a small needle that goes under the skin into the fatty layer. We teach you how to administer them in the abdomen and, since the exact puncture site doesn’t need to be precise, most women are able to administer them themselves, even if they have given themselves an injection in the past.

I commonly get asked how the medications actually work and if they deplete a woman’s egg supply faster than if she didn’t take them. It’s a good question. The short answer is no, and here’s why.

Each month, a woman recruits a bunch of follicles from her ovaries. The number of follicles recruited differs per woman and can even differ in the same woman month to month. In a normal (unstimulated) menstrual cycle around day 5, one of the follicles becomes dominant, uses all of the hormone called follicle-stimulating hormone (FSH) and the others can’t continue without it. They therefore stop growing, die off and get reabsorbed by the body, but they are *still withdrawn from your egg supply.* If we supply a woman with hormones prior to dominant cycle formation, then we can salvage the other follicles by giving them the FSH (and later LH) that they need in order to grow, mature and be fertilizable. So, we are not withdrawing additional follicles from your ovarian ‘bank’ that month, we are just allowing you to keep the change.

We need to make many follicles so that we can surgically retrieve them, combine them with sperm, make embryos that then make blastocysts that then get implanted in the uterus. Since there is a high rate of attrition from the eggs retrieved to the blastocysts available for transfer, we have to start with a lot to get the 1-2 blastocysts for transfer and some others to freeze or be analyzed for chromosomes or both.

How much medication is needed? Your unique starting dose depends on many factors (such as your age, weight, and results of ovarian reserve testing) and might be increased or decreased during your cycle depending on your response. No two people, or cycles, are alike, so your dose and medications may be different that your friend’s even if you are the same age. Additional medications are given so that you don’t ovulate prematurely (we don’t want to make a bunch of eggs only to have them be released into the fallopian tubes where we can’t retrieve them) but once you are ready we ovulate you with a ‘trigger shot’ that causes ovulation to occur in 34-36 hours so that we can precisely time your retrieval to assure that your eggs are as mature as they can be but haven’t ovulated yet.

Most women feel good, emotionally, on the medications as their estrogen levels are elevated (low estrogen levels caused by some of the oral medications can cause mood swings that are legendary). Since your ovary is expanding beyond its usual size in order to accommodate the multiple follicles, it is normal to have bloating and water retention during the cycle. Also, even expert injectors (and I am one, I must say) can cause slight bruising at the injection site as it’s difficult to avoid the tiny, superficial capillaries with the needles.

If you are having a transfer this cycle we will prescribe progesterone injections and suppositories and estrogen pills for you to take at least until the pregnancy test. The cyst(s) that remain after ovulation are usually in charge of providing these important implantation hormones that make the uterus thick and cozy for an embryo to implant there, but since we disrupted their functionality by giving you medication to prevent ovulation, we can’t rely on them to do their job, so we do it for them. Should a pregnancy take place, you would continue taking these medications until the placenta starts to work in a few weeks. The progesterone injections are intramuscular, and we show you how to administer these as well. Since it is best that they are given in a large muscle, the gluteal muscle or butt, most women have to ask for help with these.

Ok, back to the good part. One of the worst feelings during an infertility cycle is the lack of control that many feel over their outcome. You have to rely on us and technology to help, and that can be frustrating for those of us who have learned that if we ‘work hard’ we can accomplish anything. Taking the medications and seeing your estrogen level go up and the little black circles (follicles) increase in size and number by ultrasound is incredibly fulfilling. You feel like you are, well, actually *doing something*. Many women report that they were surprised at how brave and resilient they become, even if they were initially terrified by the thought of daily injections (I am not surprised as I encounter amazing and courageous women like you on a regular basis).

What about the intramuscular progesterone injections? They can feel daunting, to say the least. Well, remember when I said that you might need someone to help you with them? Many partners, friends or family members of patients ask how they can help. They, too, feel helpless. Allowing them to administer these for you gives them a way to support you, particularly if you are someone who doesn’t like asking for help. Many partners have told me that they have found humor in the midst of a stressful time while administering injections and others have told me that their collaboration during this part of the cycle deepened their relationship and commitment to each other.

In summary, do you want to take injections in your spare time for fun? Hell no. Are the injections as bad as most people make them out to be? No. In fact, there is a silver lining in that you are able to tap into some internal resources that you didn’t know were available until you are asked to do some hard stuff. Allowing someone to help you with the medications can enrich your relationship with your partner or friend who feels strongly about helping but isn’t sure how.

Undergoing an IVF cycle can be tough, but so are you.