

Fem-Tech: The Future of Innovation is Female



Leah Favela

News flash: Women aren't men.

Gasp.

I know this seems like a strange way to start an article because “duh”, right? But for years the medical and healthcare industry seemed to treat women as if they were pretty much the same as men. They scoffed at the idea that fluctuating hormones, menstrual cycles, and plain ‘ole physical differences did anything more than make a woman bleed and get moody and weepy.

In a world where the male perspective has been held as the “norm” for so long, female anatomy was usually only represented in matters involving reproductive biology. For decades, women were left out of drug trials because it was believed their hormone cycles would mess up test results. In [1993, the National Institutes of Health](#) (USA) mandated that trials should be run on both men and women. Yet a large proportion of studies still underrepresent women and

thousands of drugs are sold today which were approved before the 1993 ruling. Even the majority of medicines that were developed specifically for women have been [tested on male lab animals](#).

But the tides, they are a-changing.

With the rise of the ‘she-economy’, women are beginning to play an increasingly influential role in life-long healthcare. With better jobs than ever before comes more purchasing power. A [Frost & Sullivan report](#) states that 90% of women are primary healthcare decision-makers for their family and play the role of key influencers for their friends, 80% of household healthcare spending is done by women, working-age women spend 29% more on healthcare than men of the same demographic, and women are 75% more likely to use digital tools for healthcare than men.

In answer to an overwhelming need for medicines, diagnostics, and services to address biological differences in men and women, femtech was born. First coined by Ida Tin, CEO and founder of [Clue](#), a women’s menstruation-tracking app, femtech refers to technologies created specifically to support women’s health. They generally fall into 4 categories: reproductive health, pregnancy, and nursing care, pelvic and uterine care, and general healthcare and wellness. With apps that target early diagnosis of certain cancer types to wearable and unobtrusive breast pumps, these technologies leverage healthcare services

while lowering healthcare costs and raising healthcare standards and quality of life for women.

The world is beginning to take notice of femtech start-ups, with venture capitalist funding and investments rapidly increasing. The market potential is expected to reach [\\$50 billion by 2025](#), which makes sense since 50% of the world's population are femtech's target customers.

A few start-ups to take note of:

Enjoy

Started in Barcelona in 2018 by Andrea Oliver, [Enjoy](#) is an app that takes women on a “personalized journey to find sexual happiness and gratification through audio guides”. I downloaded the app and opted for the 7-day trial since, like a lot of people, I try not to spend money until I believe something is going to be worth it. I took a 5-minute quiz which asked me a variety of questions including some about my sexual desires, self-image, confidence levels, and sexual goals. My app is now personalized with audio sessions such as “Limiting Negative Thoughts”, “Practicing Self-Care”, “3-Days to Love Your Vulva” and “Increasing Your Sexual Energy”. A 15-minute session had me listening to a female sex therapist lead me through a visualization of a lover exploring my body. Sound weird? Yeah, I thought so too at first. But the therapist's cheerful, no-nonsense tone soon made me feel comfortable, though I will admit I caught myself giggling a few times. Overall, the session was

enjoyable and almost meditative. I'm a few days into the free trial and actively using the app. The jury is still out on whether or not I'll pay for it, but I like the way it's set up and I believe it could be beneficial to women who want to raise their confidence levels, heighten sexual experience, and simply explore "taboo" subjects they might not feel comfortable talking about.

Lattice Medical

40% of women with breast cancer have mastectomies, with only 14% of these women receiving reconstructive surgery. Currently, the most common reconstructive procedures offered involve multiple and costly surgeries with a high-risk of ongoing complications. [Lattice Medical](#), a France-based startup, has created MATISSE, a 3D printed bioabsorbable implant.

Bioabsorbable means the implants slowly diffuse into the body, eliminating the need for multiple surgeries to remove synthetic materials. This reduces the price of the reconstruction and makes an already unpleasant experience much simpler and less invasive. The implant creates a lattice shell that gives shape and volume while stimulating and guiding tissue reconstruction.

Within 4 to 8 months the breast is rebuilt with the patient's natural fatty tissues, without introducing any harmful foreign bodies. Both Lattice Medical and its founder, Dr. Julien Payen, have been nominated for and won several awards for innovation in both technology and medicine. While researching this article, I e-mailed Lattice Medical to ask if the MATISSE was still in development and received a quick response directly from Dr. Payen. "Yes, the product is still in development," he

wrote, “it’s a very long path since it is an implantable medical device with strong regulations and standardization to prevent any risks. We expect to begin the first in-woman clinical trial in a year and a half.”

Cirql Biomedical

I don’t know about any of you women out there, but birth control pills have always had a nasty effect on me; from massive mood swings to irregular cycles, even low-hormone pills absolutely wreak havoc on my body and mind. [Cirql Biomedical](#), based in Copenhagen, developed OUI a “next-generation contraceptive technology to replace hormonal birth control as the go-to option for women”. OUI is a vaginal capsule which quickly dissolves after insertion and releases a natural polymer formulation. The formulation provides effective birth control a minute after insertion by making cervical mucus temporarily impenetrable to sperm. The barrier of the cervical mucus traps the sperm in the vaginal cavity where the low pH environment deactivates them. This mucus engineering approach to birth control is unique in that only the top mucus layer is temporarily affected. Because it doesn’t act like a drug and is free of hormones, the side-effects of the OUI are minimized. Dr. Ljudmila Katchan, of Cirql Biomedical, says, “The near term goal is to advance the technology to a stage where it is ready for the first-in-human study. We need to solve the numerous challenges ahead of us but we are also thinking about the bigger picture.” When OUI hits the market, this innovation could be a game-changer.

Elvie

[Elvie](#)'s motto is "Bringing women's technology out of the dark ages" and the company aims to change the way women think and feel about themselves and their bodies. Founded and headed by Tania Boler, a world-recognized women's health expert, Elvie offers a variety of innovative FemTech technology. The Elvie Pump is a wearable and silent cordless breast pump. It fits snugly into a standard nursing bra and allows for freedom of movement. The wearer can even go out into public without the device being seen or heard. This is such a great time-saver for nursing mothers who can continue with their everyday lives while the pump works, switching from stimulation to expression mode when milk flow abates as well as pausing when the bottle is full.

The Elvie Trainer is an award-winning insertable Kegel trainer designed to strengthen the pelvic floor for improved bladder control, faster postnatal recovery, and enhanced intimacy. The Kegel trainer measures force and motion and sends information to the accompanying app. The app then helps the user to change incorrect Kegel movements which can harm vaginal muscles. The app also comes with a variety of 5-minute workouts that give your pelvic floor a full workout.

Daye Ltd.

Harnessing the anti-inflammatory powers of CBD oil, [Daye Ltd.](#) is redesigning the tampon, with sustainability, safety, and

cost kept in mind. Wrapped in water-soluble, compostable, and biodegradable packaging, the tampon is made from sustainably sourced, plastic-free cotton fibers with a sugarcane applicator. So no more feeling guilty about all that plastic you go through every month! The tampons can come with or without CBD oil. The website assures potential customers that each tampon is tested to make sure it contains 0% THC, so no, you won't get high by using them. CBD oil is a [proven anti-inflammatory](#) and the CBD-infused tampons can ease or alleviate menstrual cramping. Though keep in mind there can be side-effects to it so it's probably a good idea to talk to your GP or gyno before buying a box of Daye tampons. At almost \$18 US dollars for a box of 12 tampons, they do run a bit on the pricey side. However this is a tampon and pain alleviator in one, and the company promises to always keep their cost below the cost of a box of organic tampons and pain reliever combined. This time of the month has always been extremely hard on me, and I was willing to splurge a bit to try these bad girls out. But sadly, for the moment Daye Ltd. only ships to countries in Europe, though they promise to be launching into other countries soon!

The potential of femtech is endless and has the power to positively disrupt and revolutionize the women's health market. As women gain a stronger position in today's world, female technology is empowering them to take control of their physical, mental, and sexual health in beautifully innovative and mindful ways.