

WEWANTA BASSINGW

An Insider's Guide to Overcoming Infertility



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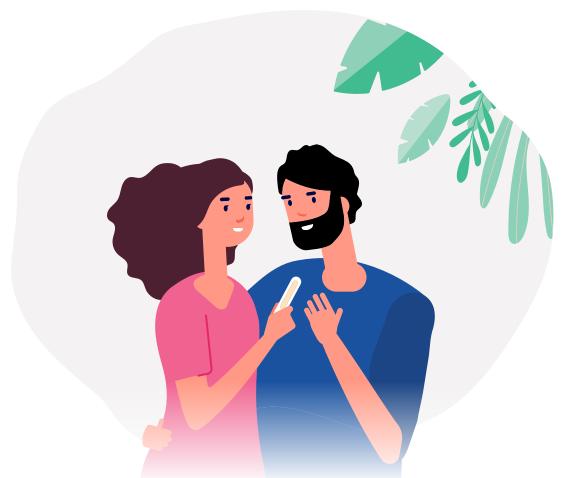


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INTRODUCTION





Dedicated of course to Mark, Vivian, and Melissa. Our 123 babies.

Let's get right to it. You have been having sexual intercourse with your partner for 6 months to a year and you are not yet pregnant, and you're probably getting pretty pissed off at this point. You may even be getting pissed off at each other and possibly even blaming each other. There is a good chance you spent your whole life avoiding babies and now that you want one it's not happening. It's frustrating as hell.

We get it. This book is for you. Marion and I have three kids of our own and we've devoted our business and our lives to helping infertile couples like you to have children. In this book, we'll explain everything you need to know about infertility in about an hour: what it is exactly, what the male infertility issues can be, what the female infertility issues can be, and then we'll look at how to overcome infertility, what it will cost you to overcome it, and what your chances of success will be. We'll conclude with a final chapter that describes all of the free stuff you can do immediately to increase your chances of beating your infertility.

The good news is that about 90% of those who suffer from infertility can overcome it¹, and that's what this book is all about—pointing you to all the good news. 'We shall overcome' as the great gospel song says.

Probably the most important information you will get out of this book is: how much will it cost us and what are our chances of success? To help explain this, we have actually invented an entirely new metric for the infertility treatment industry, which we are introducing with this book. The COPE metric.

It will help you cope with the costs you are facing in treating your infertility because it is the Cost per Percentage (COPE) of success. It's a great pun, yes, but it's also true. There is so much noise and confusion out there on this subject that we felt compelled to invent a new calculation to clarify it all. You can even try it out for yourself, and plug in your own numbers, using the interactive version of the COPE Calculator on our website at our123Baby.com/cope.

Speaking of the noise and confusion, we have to make one key point right up front, which is particularly relevant for couples who are just starting to learn about infertility. You have probably heard about In Vitro Fertilization (IVF) because it is the most famous of all the treatments that are available, but it is crucial to understand that it is not the only option available, and it is incredibly expensive.

As an infertile couple, you are vulnerable. You want your baby now and some may prey on you for that and even direct you towards treatment that may not be ideal for you. Amy Klein, a *New York Times* columnist who underwent successful IVF, and authored the book *The Trying Game*², puts it this way:

I can't tell you the number of women I've spoken to who have been rushed into an invasive treatment without a preliminary evaluation first, myself included.

She then quotes her husband Solomon:

When you're a hammer, everything looks like a nail, Solomon loves to say—pinpointing the moment when the doctor rushed us into IVF without properly assessing us—as the moment where we went horribly astray.

¹ https://www.fertilityanswers.com/13-stats-know-infertility/

² https://thetryinggamebook.com/

IVF gets all the publicity but it may not be the best option for you, and it's certainly not the only option. Plus, it costs anywhere from 20 to 100 thousand dollars, so for most of us, it's probably not an option anyhow. If you live in a non-rich country then you can pretty much forget about IVF altogether, based on this statistic from an April 2023 article in the *National Post*³:

..researchers assessed the costs associated with infertility treatments in low and middle-income countries and found that a single round of in vitro fertilization (IVF) is often higher than the average annual income.

The second key point that we need to make before going any further is—be wary of success rate claims. We invented the COPE metric to emphasize that success rates have to be judged by how much they cost. Sure, one round of IVF may have a 50% chance of success, but it will cost you 10 to 30 thousand dollars. In some cases, it may be worth it and it may be the only option, but in many cases it may not be.

Here's another example of how confusing things can be in the infertility treatment industry when it comes to success rate claims. One of the most definitive studies ever conducted on Intra-Uterine Insemination (IUI) concluded that for women under the age of 35 there was an 11.5% chance of getting pregnant for every cycle of treatment that was completed.⁴ Wow, that's not very good, is it? It really could make you lean away from IUI, but let's look closer.

That 11.5% is the average over nine cycles of treatment, and the fifth round is a disappointing 4.5%, which drags the overall average way down. But it doesn't really make sense because, typically, only 3–4 rounds of IUI are recommended. Quite astonishingly, the first round of treatment in this study actually averaged a 46.1% chance of getting pregnant!

Thus, another big CAUTION sign up front: be aware of success rate claims as you begin your journey to overcome infertility. Are they success rates for all rounds or per round? And what is the cost of each round? Once again, our COPE Calculator helps you to figure this all out.

But we are getting a bit ahead of ourselves. What exactly is IVF and IUI and how are they different, you might be asking. Yes, we will get to that soon. There's a whole chapter devoted to this, and there's a whole chapter dedicated to costs, and another that looks at success rates. We'll dive right in shortly, but we just have to make a few more key points about this book before moving on.

³ https://nationalpost.com/news/one-in-six-people-face-infertility-worldwide

⁴ Dovey et al. Clomiphene citrate and intrauterine insemination: analysis of more than 4100 cycles. Fertil Steril 90(6),2281-6 (2008).

First and foremost, the legal disclaimer stuff. Neither Marion nor I are medical doctors so the information provided here is simply our opinions, but we do recommend that you consult with medical professionals to properly assess and overcome your infertility issues.

Second, we want to be clear up front: this book is advertorial. We're here to inform with some useful editorial, but we will also be advertising our own product for overcoming infertility: our123Baby. But you can put your wallets, purses and murses away for now because our123Baby isn't on the market yet. We're just introducing it with this book so that you are aware of it when it does come out in some countries later this year, and in all countries in 2024. See <u>our123Baby.com</u> for more information.

Third, in terms of the tone in this book, we've tried to keep it fun and we hope to make you laugh a few times or more. But let me be clear: I know that infertility is an incredibly serious subject. Life and death in some cases. I don't take it lightly and please don't let my tone suggest that I do. It's just better to laugh sometimes than to cry. Let's begin.





WHAT EXACTLY IS INFERTILITY?



Here is the World Health Organization's official definition of infertility:

Infertility is a disease of the male or female reproductive system defined by the failure to achieve a pregnancy after 12 months or more of regular unprotected sexual intercourse.¹

According to the CDC, sometimes 6 months is used as the cutoff point to identify infertility, especially for women who are 35 years or older. Wait. Stop. Hold the phone. Is that sexist? It's not sexist or ageist to say what I just said, because the age of the mother is generally agreed to be the number one factor when it comes to success rates, and 'generally agreed' is a phrase that is not used very often in the infertility treatment industry.

Another important thing to note in the definition above is the use of the word "disease". Infertility is now considered a disease and not that many people are aware of this. So, if you, or you and your partner, have been struggling to conceive for a year or more, then you are officially suffering from the disease of infertility. Also crucial to note is that the WHO definition does not blame the woman—they clearly specify it can be either the male or female reproductive system.

Another way of defining infertility is by your likelihood of having a baby. Also known as the success rate or the odds of having a baby. As you battle infertility, you will feel like a Las Vegas bookie because you will get to know the odds so well. The first one you need to know, and it may surprise you, is that a normal healthy couple has only a 20% chance of having a baby when they have sexual intercourse. But as an infertile couple, you have about a 0% chance. There are outliers and happy accidents so perhaps 1–2%, but it's safer to assume 0% so that you can then work up from there.

¹ https://www.who.int/health-topics/infertility#tab=tab_1

² https://www.cdc.gov/reproductivehealth/infertility/index.htm#:~:text=What%20is%20infertility%3F,6%20 months%20of%20unprotected%20sex.

Infertility is one of the most taboo subjects there is today. Rarely mentioned in polite company or at cocktail parties. People simply don't talk about it much. So if you are just starting your baby-making journey and have discovered that you are, or you may be, infertile, you might think that you are alone, but you are not.

I repeat. You are not alone. Millions and millions of individuals and couples all over the world are struggling with exactly the same thing you are struggling with. About 1 out of every 6 couples worldwide are struggling with infertility and this works out to roughly 186 million individuals worldwide, according to the World Health Organization (WHO).³

Globally, the infertility rate among people of child-bearing age averages about 15%, but in some countries it is much higher. 1 out of every 4 couples in developing countries are estimated to be infertile. And it gets worse. For women over the age of 35, the number is 1 in 3 worldwide.

But don't worry, all you moms to be. We have your back when it comes to the sexist slant against women in the infertility treatment business. Which brings us to an absolutely crucial point of this whole book, which we'll stress again and

³ https://www.who.int/health-topics/infertility#tab=tab 1



again. It's not only your fault, ladies. I repeat. It's not just your fault.

Roughly 10% of men of reproductive age have experienced fertility problems and 10% of women of reproductive age have experienced fertility problems. Booyah. Equality, at last.

This scientific paper sums up the situation well, and the general consensus, in the industry:

...approximately 1/3 of infertility is attributed to male factors, 1/3 attributed to female factors, and in 1/3 of couples no cause can be identified, also known as unexplained or idiopathic infertility.⁴

This paper concludes with:

...in general, men are as likely as woman to be responsible for infertility.⁵

At this point, a quick sidebar related to the issue of blame. The motto in our house is actually "Blame the Dog" and this is truly unfair because he can't talk back. He's been blamed for hundreds of burps, thousands of farts, and much destruction in general. That's not fair. So, heartfelt apologies go out to our beloved dog, Cho. But if you find any typos or other mistakes in this book you can email him at cho@dontblamethedog.com. (This is not a real email address).

Suffice to say, it may be you, ladies. Or, it may be you, fellas. End the blame game now, please. You're a partnership to overcome infertility. The next two chapters will help with this. Chapter 3 looks at the various male infertility issues and chapter 4 looks at all of the female infertility issues. That sets up chapter 5 which looks at the various treatments that are available.

⁵ Turner et al. Male Infertility is a Women's Health Issue—Research and Clinical Evaluation of Male Infertility Is Needed. Cells 9(4),990 (2020).



⁴ <u>Turner et al. Male Infertility is a Women's Health Issue—Research and Clinical Evaluation of Male Infertility Is Needed. Cells 9(4),990 (2020).</u>



WHAT IS MY MALE INFERTILITY ISSUE?



Alright. You have been trying to have a baby for about six months to a year and it is not happening, so it looks like you may be suffering from infertility. Time to shift from 'what could be' to 'what is'. You've got a problem. Let's deal with it and find the right solution.

But, of course, to find the right solution, you need to clearly identify the exact nature of the problem and that's what this chapter and the next one is all about. In this chapter, we look at the male side of infertility and what the issues can be, and in the next chapter we look at the female side of things, and what the issues can be for women.

To identify the cause of your infertility, we recommend that both you and your partner consult with a medical professional or a fertility specialist. Neither Marion nor I are medical doctors so while we have strong opinions on the subject of treatment, the definitive diagnosis should come from a medical professional.

However, you might want to be very careful about any advice that you do get. Many fertility specialists, especially those that work in a clinic, make a lot more money on IVF than on IUI or other treatments, so they may subtly guide you in the IVF direction, and if that is the case then you may want to consider running in the other direction.

Don't let anyone rush you, and make sure that your preliminary evaluation includes examining both the male and female side of your baby-making partnership, because this just doesn't happen these days in most cases: in a recent survey, only 1 in 4 men who are trying to have children, said that they have had their fertility tested. The survey authors concluded that:

This can lead to misinformed medical advice that favors more expensive assisted reproductive treatments, like in vitro fertilization (IVF). In many cases, addressing male-factor infertility is a much more affordable option.²

In many countries, health insurers cover fertility diagnoses, so you may not have to pay out of your own pocket. Typically, though, health insurers don't cover the actual treatment itself, although there are notable exceptions, such as several states in America that are required to cover certain treatments. We cover costs of treatment in chapter 6.

¹ https://www.givelegacy.com/sperm-report/

² https://www.givelegacy.com/sperm-report/

For now, check with your insurance provider to see if they will cover the cost of diagnosing your fertility issues, for both you and your partner. If your insurance doesn't cover it, or you cannot afford to see a doctor, or if you just don't have health insurance, or if you just prefer to go it alone, there are more and more home diagnostic tools available on the market.

For men, there are home sperm evaluation products that align with our mission of moving treatment out of the clinics and into the homes, and empowering people to take charge of overcoming their infertility. Empower is a word I usually avoid, but in this case it is appropriate. Clinics have all the power right now and you the customer need to get some of it back.

For a simple sperm analysis, there is the YO product (https://yospermtest.com/) which Marion used quite a bit during the early development of our 123Baby, and which is pretty good at getting a general indication of your sperm quality and quantity. It measures your sperm's motility, which is the swimming strength, and since swimming strength is so crucial, it is a general measure of your sperm quality.

YO also measures the sperm concentration, which is the quantity per milliliter of semen. This is basically your 'sperm count', but of course, a 4ml semen sample will have four times as much sperm as a 1ml semen sample, so concentration gives a consistent and comparable measurement. That is, concentration tells you how many sperm there are in 1 ml of semen.

The YO product is pretty easy to use: you just place a tiny amount of semen on a microscopic slide and insert it into the YO hardware, and a few minutes later you get a score from 10 to 90, which is a measure of your motile sperm concentration (MSC). You even get a cool video so you can see your little fellas in action.

The score is easy to interpret because it compares your sperm quality against the sperm quality of men who have successfully fathered children. That is, it compares



your sperm to healthy sperm samples. So, if your score is 50 then 50% of men who fathered children have a higher score than you, and the other 50% have a lower score. Essentially, your chances of conceiving are exactly average. If you score 20 then 80% of men who fathered children had better sperm than you.

It is a general indication, but it can be useful. If you are suffering from male-factor infertility then you won't even get on the scoreboard. This happened to me after suffering from COVID. My own sperm took a big nosedive so that they didn't even register a score. If you don't get on the scoreboard, it means you probably have a problem and should investigate further. Likewise, if you don't see any swimming sperm in your YO video then this probably indicates that there is a problem too.

Another product you might want to look at is ExSeed (https://www.exseedhealth.com/). Marion also used it during the early development of our 123Baby. It provides a score for motility and concentration, but the ranges are a bit simpler than YO: Low, Moderate, or Optimal. And thus, it is a good general indication of where you stand, or I guess where your sperm stands, or swims. Whatever. You get the idea. A Low score or lower probably means you have a problem and should investigate further. An Optimal means you probably don't have a problem. In addition, as with YO, you get a video of your sperm so you can see your little fellas swimming away.

All of this said, these devices are still fairly new so read the fine print carefully and take all readings with a grain of salt. Marion did find them useful but she also did find the results were at times inconsistent. This raises a key point—your sperm can vary significantly from day to day based on a wide variety of factors—so it's a good idea to perform at least 3 tests over time to get a clear picture of your sperm quality.

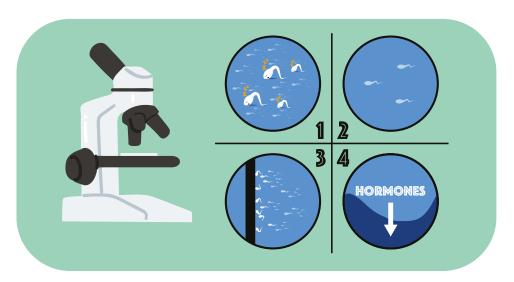
A new company that is focused on male fertility is Legacy (givelegacy.com) and their claim is to be the "#1 at-home fertility clinic for people with sperm". Personally, I believe them because they have great information on their website and they seem seriously devoted to men's health. Plus, they are all about moving the locus of power from the clinics to the home, just like we are trying to do at our123Baby.

Legacy provides a basic sperm testing solution for home use which we have not tried, but more interestingly, they also have a DNA fragmentation analysis test that you can use at home. It costs \$590 so it doesn't really fit with our own 'low cost' ethos, but it's definitely a step in the right direction because DNA fragmentation is emerging as the most important parameter when it comes to evaluating your sperm, as we'll see later in this chapter.

Okay, enough of the home stuff. Let's get you ready to visit your medical professional, fertility doctor, or fertility clinic. When you seek help from medical professionals, you will undoubtedly get hit with a bunch of fancy terms. First among which is male-factor infertility, which is just a fancy way of saying fertility issues related to the man. There are basically four male-factor infertility issues that you may have³

- Sperm Quantity issues. This means you are not producing enough of those little fellas. Also commonly referred to as sperm count. Yes, this is the proverbial and sometimes apocalyptic sperm count that has been dropping for 50 years! To accurately measure and compare sperm quantity, concentration is more commonly used, as we saw with the YO device. That is, the total number of sperm divided by the volume of the semen sample. For example, 320 million sperm may sound impressive but if that is based on a 4ml semen sample then it's only a concentration of 80 million per milliliter, which is actually fairly average.
- Sperm Quality issues. Your little fellas leave something to be desired.

 Motility is the fancy word for describing the swimming strength of your little fellas. Morphology is the fancy word for describing the size and shape of your little fellas.
- Semen Blocking issues. Your little fellas can't quite get out of your balls or your penis properly.
- Hormonal issues. Something is off with your hormones. And, yes, us guys have hormones, too. A thousand years of patriarchy is once again the culprit here if you think we don't have them.



At this point, your head may be spinning because it all sounds crazy complicated, and if you wish there was just one simple measure to evaluate your sperm, like a grade on a report card, then there is actually some good news on the horizon.⁴

³ Krausz & Riera-Escamilla. Genetics of male infertility. Nature Reviews Urology 15, 369–384 (2018).

DNA damage of your sperm is emerging as the gold standard of sperm quality evaluation. Specifically, DFI, which is short for DNA Fragmentation Index, will likely become the key metric for evaluating DNA damage in sperm. Basically, it's your A+ or B or D or F grade of your sperm.

Today, most sperm evaluation involves looking at the outer properties of your sperm, such as the factors described above, like their shape and their swimming strength. But the analysis of DNA and its organization looks at the inner properties of your sperm, and so it does appear to be a more reliable and definitive criteria for evaluation. But just to be clear, this is not about unique DNA sequences (which is a very personal issue with a lot of privacy implications), this is only about breaks in the DNA strands.

This scientific publication from April 2020 highlights the current problem with traditional semen analysis measures, and how DNA analysis can be the solution:

Despite many scientific efforts, infertility in men due to sperm dysfunction is mainly diagnosed by a semen analysis. The semen analysis is limited as it only examines general sperm properties such as concentration, motility, and morphology. A diagnosis of male infertility rarely includes an assessment of internal sperm components such as DNA, which is well documented to have an impact on infertility...⁵

Esteves makes the same point when he writes,

"Traditional semen parameter analysis does not provide men with an optimal fertility pathway".

Translation: the way we evaluate sperm today just doesn't work that well in terms of finding a solution for men suffering from infertility.

Indeed, he adds that 30% of men who appear to be in the 'reference range' of traditional semen parameters—that is, their sperm appears to be perfectly fine—are in actual fact infertile, and he goes on to write that additional tests "might provide invaluable information". Translation: current sperm evaluation doesn't work 30% of the time.

This all highlights a fact that only came clear to me as I was writing this book, which is that infertility evaluation, in both men and women, is still in its infancy. This is particularly true for men because only in recent years has male infertility been considered equally with female infertility. However, in the next chapter on female infertility issues, you will probably be shocked to find how incredibly imprecise female infertility testing is.

⁴ Esteves. Evolution of the World Health Organization semen analysis manual: where are we? Nature Reviews Urology 19, 439–446 (2022).

⁵Turner et al. Male Infertility is a Women's Health Issue—Research and Clinical Evaluation of Male Infertility Is Needed. Cells 9(4),990 (2020).

The key point being: take everything with a grain of salt when it comes to evaluating your sperm. And keep your eyes out for more DFI measuring products, and more companies and products that take DFI into account, including our own our 123Baby.

It was actually DNA fragmentation that originally piqued my own interest in Marion's work on sperm quality back in 2016. She published a paper saying that if sperm with less DNA fragmentation was used in assisted reproduction procedures, then it could (and we emphasize "could" because it's not proven yet) lead to higher success rates of ART, fewer miscarriages, and even healthier babies⁶. Wow! That's exciting and it would change the entire complexion of infertility treatment.

Today, our long-term vision for our 123Baby is to help not only infertile couples, but perhaps fertile couples as well, because if sperm with the highest DNA integrity is used for conception, it opens up a world of possibilities for more successful pregnancies and live births. Indeed, the proverbial and apocalyptic sperm count problem that some feel will be the end of mankind, might be solved by selecting only the sperm with the highest DNA integrity.

At this point, we are compelled to appeal to anyone and everyone who uses our 123Baby, when it's on the market, to please share as much data as you can with us as you use the product, especially DFI data, if you get yours measured. In the long run, our product might just be able to prevent thousands of miscarriages and thus eliminate untold tragedy for so many people. There are no guarantees but it's something we are aiming for and we hope you will work with us to make history.

Finally, let's finish up this chapter with some more good news for all the proud cheapskates out there, and we say this with great affection, because Marion and I are proud coupon-clipping cheapskates. You might ask: is there an easy and cheap way to get my grades up? Or, how do I get my sperm from a D or an F to an A or a B. And here, there is some very good news too, also based on some cutting-edge research by Bisht et al. Who is this 'et al' guy? He sure writes a lot of stuff. Sorry I heard that in a movie once and I couldn't resist using it here. But it's just a joke.

Anyway, the good news is that Bisht et al. have determined that "male infertility is a lifestyle-related disorder". What?! So, basically, if lifestyle causes it then lifestyle can fix it. They go on to say that "simple lifestyle modifications, such as meditation and yoga, can reduce the amount of DNA damage in your sperm." This means that there is a good chance you can actually overcome male factor infertility with some basic lifestyle changes and we cover these in chapter 8.

Right now though, let's move on to female-factor infertility, which is the subject of the next chapter.

⁶ Eamer, Vollmer et al. Turning the corner in fertility: high DNA integrity of boundary-following sperm. Lab Chip, 16, 2418-2422 (2016).

⁷Bisht et al. Oxidative stress and male infertility. Nature Reviews Urology 14, 470–485 (2017).



WHAT IS MY FEMALE INFERTILITY ISSUE?



Let's do a quick recap because we're four chapters in and your brain may have exploded by now because we've hit you with a lot of information. First of all, infertility doesn't discriminate. It's an equal opportunity disease and 33% of the time the issues are related to the man, 33% of the time the issues are related to the women, and 33% of the time the issues are unknown.

However, fertility evaluation is unequal in that it is much simpler for men:

There's no single test that can accurately predict whether everything will go right for a given couple or individual, says Dr. Samantha Schon, a reproductive endocrinologist at the University of Michigan. Men can have their sperm count and quality analyzed fairly easily, but they're only half the equation. For women, Schon says, the fertility testing landscape is more complicated.¹

That's kind of an understatement. Maybe it's because I'm a man, but to me, female infertility is a bit more complex and sometimes feels like a can of worms inside a rabbit hole.

Please excuse the mixed metaphor but it does convey how confusing the female side of things can get. And it's not just me who is saying this. A fascinating article appeared in *Time* recently on the subject which proves my point. Its title is: *Why It's So Hard to Have your Fertility Tested*.² And it gets worse from there. Here's how it starts out:

Some say fertility testing sparks anxiety while giving patients little actionable information, and studies have raised doubts about whether common tests are accurate at all. It's also an invasive and expensive proposition.

Yikes. Doesn't exactly instill you with confidence does it? Let's read on and look for some better news:

Nonetheless, the fertility testing market is currently worth almost half a billion dollars, and it's growing.

¹ https://time.com/6253707/fertility-testing-difficult/

² https://time.com/6253707/fertility-testing-difficult/

Okay, cool. But then:

Whether that's good for patients is a matter of debate.

Double-yikes. A billion dollars and it may not even get better!? WTF. Welcome to our world of figuring this all out. Ugh.

Oh well, there has to be some good news right? Maybe something like ovarian-reserve testing is easy and straightforward and actually works:

Ovarian-reserve testing is fairly easy, but it's not always an accurate predictor of future pregnancies, Schon says. In a major 2017 study, the results of which were replicated in 2022, researchers found that AMH levels were not significantly correlated with later pregnancy and birth. Ovarian reserve tests are "poor independent predictors of reproductive potential. Therefore, they should not be used as a fertility test," the American Society for Reproductive Medicine said in a 2020 policy statement.

Triple yikes. I give up. No wonder Marion and I created a simple and low-cost infertility treatment that you can use before you even get tested. If testing is not really very

accurate or useful then you have to ask why it's even being done at all. I have no research at hand to support it, but I do wonder if the profit motive for the fertility clinics is involved here?

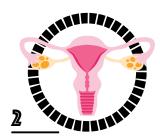
All of this reminds me of what I wrote in the last chapter, and which you should keep in mind as you deal with your infertility: the diagnosis and treatment of infertility is a relatively new industry, and at times, the unknowns seem to outweigh the knowns, which can make your journey to overcome it even more challenging than it already is.

If you think about it, Louise Brown, the very first 'test tube baby' is still alive and she's not quite 50 years old, and the infertility treatment industry really started with her. Assuming that you don't count some snake oil remedies and witch doctors that may have had earlier solutions.



Let's put the witch doctors aside now, and focus on what is generally known. Here is a summary of the five main areas where you can encounter issues with female infertility³:







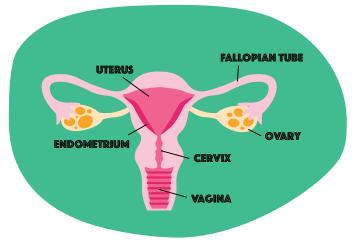




- 1. Tubular issues. Your fallopian tubes may be blocked, or they may not be collecting the new egg (oocyte) from the ovary.
- 2. Menstrual issues. One cause of female-factor infertility is menstrual cycle irregularity, either less than 21 days or longer than 35 days. Also referred to by its scientific term: Ovulatory Dysfunction or Anovulation. Yikes. That's why the doctors make so much money—because they can actually pronounce Anovulation.

The most common cause of menstrual irregularity is Polycystic Ovary Syndrome (PCOS), and after that comes obesity. You will hear about PCOS a lot as you start to look into female-factor infertility because 10% of women of childbearing age have PCOS and 30% of couples seeking fertility treatment are diagnosed with Anovulation. 90% of Anovulation cases are caused by PCOS.⁴

- 3. Uterine and Cervical Issues. Typically associated with miscarriages or premature babies.
- 4. Issues with your tissues. Had to use that one because it rhymes. The fancy term being Endometriosis. With this condition, endometrial tissue outside the uterine cavity causes problems. 10% of women are affected by Endometriosis during their reproductive years and about 40% of women with Endometriosis may experience infertility.⁵
- 5. Not quite enough eggs. The fancy term for this is Diminished Ovarian Reserve. This is really why the age of the female is so important because there are fewer eggs left as the woman ages, and why there is a significant increase in infertility at the age of 35. There's no ageism or sexism here. Sadly, this one is just a scientific fact.⁶



All of these issues related to women might just provide fodder for the blame the women crowd, but don't give in to that fellas; when you see your female partner battling through her first heavy contractions, not to mention hear her accompanying moans of anguish, or when you see her agonizing as she squeezes your little baby out of her vagina which is about 10 times smaller than your little baby, you will understand what I mean.

I love baseball, and baseball metaphors, so here's a good one: She's the pitcher. She's the super-star. She's going to win the game for you. You are the catcher. You just got to be there to catch her, carry her when needed, and support her every step of the way.

True story: during a baby class that Marion and I took, a male partner asked what food they would be serving to the 'hubbies' when they got to the hospital. Adjust your priorities now, guys. Pack a snack if you have to. The very same guy even had the gall to answer that he preferred to have their baby delivered without an epidural, even though the teacher of our class had directed the question at the females in the room. She's taking the pain. Let her make the decisions.

All joking aside, you and your other are partners in this. Once you acknowledge that you are partners, then there is no blame. You're a team to make a baby happen and you have some tough decisions ahead, and possibly a bit of a long haul.

It's not going to be easy, but there are solutions available, including ours. Let's look at what they are.



³ Carson and Kallen. Diagnosis and Management of Infertility. JAMA 6; 326(1), 65–76 (2021).

⁴ https://www.cofertility.com/family-learn/fertility-statistics

⁵ https://www.cofertility.com/family-learn/fertility-statistics

⁶ Carson and Kallen. Diagnosis and Management of Infertility. JAMA 6; 326(1), 65-76 (2021).



HOW DO WE OVERCOME INFERTILITY?

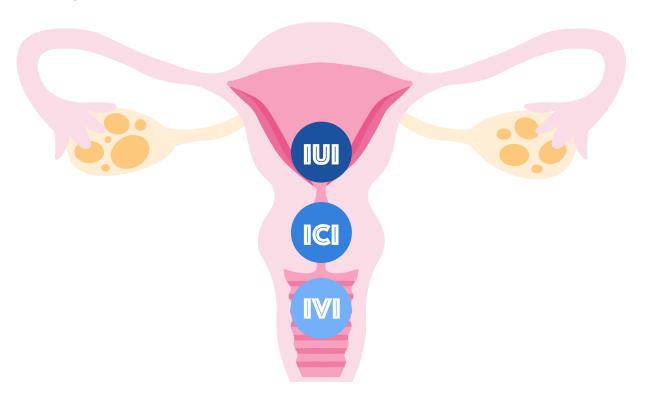


Now we get to the heart of the matter. How to overcome infertility.

At this point, you should have a good feel for what is causing your infertility based on the information provided in the last two chapters, and you should understand that in 33% of the cases you may never know. "Unknown" or "idiopathic infertility", they call it. Idiopathic is derived from idiot, which is how your doctor feels because he doesn't have an explanation for you. That's a joke. But it does help me remember what idiopathic means.

So, let's now look at the TLAs of the infertility treatment industry. What are TLAs? Three Letter Acronyms, of course. First off, there is IVI which is short for Intra-Vaginal Insemination, ICI which is short for Intra-Cervical Insemination, and IUI which is short for Intra-Uterine Insemination.

To understand the difference, start with the word that comes after the hyphen: Vaginal, Cervical, Uterine. The word after the hyphen indicates where the semen is placed during insemination. Each one is just a bit higher up inside the female anatomy, as the picture below shows.



IVI or Intra-Vaginal is where semen goes during normal sexual intercourse, after ejaculation by the man. That is, with IVI, the insemination is not very high up. This is why those 10-250 million sperm have such a long journey and why the one superswimmer who gets into the fallopian tube is the superstar.

The next step higher is ICI. The Intra-Cervical means inside or close to the cervix. Don't get confused though. ICI does not involve placing sperm in the uterus or past the cervix. Only Intra-uterine or IUI treatment involves depositing sperm inside the uterus. The uterus is close to the fallopian tubes, and the fallopian tubes are where fertilization takes place. And crucially, the uterus is beyond the cervix and the cervix is the woman's reproductive tract's primary defense mechanism. It blocks out most of the semen and debris and only lets the best sperm through.

Think of a goalie in hockey or soccer. The cervix's job is to keep all the bad shots out. Only the very best shots get through for a goal. Crude, but true, and this is the key concept behind the our123Baby product, which involves an IUI-like procedure. We can't say more because our product is not on the market yet, so we can only quote our marketing slogan for now: The Right Sperm in the Right Place at the Right Time.



There is one key difference between IUI and IVI/ICI that you need to be aware of. IUI involves the placement of purified sperm, and this is why IUI is currently only performed in the clinics. Only the clinics have the equipment to purify sperm. IVI and ICI involve the placement of raw semen—which is what makes both of them quite similar to sexual intercourse and which is why you can currently perform IVI and ICI at home using simple home kits that are available.

So be careful not to lump IVI and ICI with IUI. IUI is the only clinical-grade procedure, which means that just about anyone can invent and sell an IVI or ICI device. But IVI and ICI treatment and the devices used for it are generally known as "turkey basters", and this technology has been around in some form or another for about 50 years, so their effectiveness is somewhat in doubt. Apologies to all turkeys who might be offended by the term "turkey baster".

There are a few companies that sell turkey basters and IVI and ICI kits. Some include newfangled syringes and others include somewhat scary looking insertion/insemination devices and you're welcome to try them, but Marion generally feels that they are not effective, or when she's really mad, she calls some of them scams. Once again though, full disclosure, Marion and I have worked for 12 years to bring a truly viable and clinical-grade IUI-like solution to the market so while we try to be objective, we may not always be on this subject.

But the important question to consider is this: does squirting semen into the vagina remind you of something. Bingo! It is exactly what we do during sexual intercourse. So, our view of IVI and ICI is that it's not really that much different from having sexual intercourse. You just use a device to squirt or baste the semen a little higher up.

Now let's move on to IVF. Here's a quick summary. You can't afford it. If you can, then this book is probably not for you. Please pass it on to your 'poorer relations', as Charles Dickens calls them. But, let's look very briefly at IVF just to complete the picture, and to be fair, in some cases, it is the only option that will actually work and the price will have to be paid.

IVF involves inseminating an egg in a petri dish outside the body. Just to confuse everyone, the scientists use the word 'in vitro' to mean in a petri dish. Marion and the scientists probably like this terminology but for us normal human beings it can be confusing and hard to remember, and harder to distinguish from IVI, ICI and IUI which are also 'intra' or inside.

I asked Marion why they don't call it 'out vitro' because that would have been simpler to distinguish it from the three Intra "I"s for us normal human beings, but she just frowned at me. She's a scientist and she loves her test tubes and petri dishes so I think she's happy with the terminology as is. She's the boss so I will defer to her on this one.

Regardless, IVF is short for In-Vitro Fertilization. Outside the body. In a petri dish or in vitro. IVF involves removing eggs from the woman, and then inseminating them in a petri dish, and then putting the developing embryos back inside the women. It involves two surgical procedures and anesthesia is required. A multitude of injections are also required, and typically you have to do those injections yourself, or with your partner if they can handle it.

We've read many stories of men and women who just can't handle the injections, so it rules out IVF altogether for them. The bottom line is that IVF is a hell of a lot more work, a hell of a lot more pain, and thus a hell of a lot more dollars out of your pocket. I used 'hell' a lot but this is how I was left feeling after reading multiple books on the subject of IVF treatment. ICSI, which is short for Intracytoplasmic Sperm Injection is an add-on to IVF, but we just don't have time to cover it in this book. Use 'the Google', as George W used to say, if you want to find out more about it.

Let's now revisit IVF's lesser-known cousin, IUI, which you may not have heard much about. IUI seems to be unfairly de-emphasized, or even 'disappeared', in some countries. Marion is European and she points out that in many European countries IUI is no longer a treatment option at all.

IUI is certainly not in the news or the media much, and Chrissy and Kim certainly won't be promoting it any time soon (if you don't know the last names then congratulations for avoiding the mainstream media). Same with Amy Klein. I loved her book but it shows a heavy bias towards IVF.

Anyhow, where does this bias against IUI come from? Well probably from the National Institute for Health and Clinical Excellence (NICE) who have said some not so nice things about IUI:

According to the NICE guidelines, most couples would no longer be offered IUI, as NICE says the results are no better than those for normal intercourse. ¹

Ah, okay, so IUI doesn't work. But then:

...clinicians seem to believe in IUI as a first line treatment option, because only 4% followed the National Institute for Health and Clinical Excellence (NICE) guidelines that advised to stop IUI... ²

¹ Cohlen et al. IUI: review and systematic assessment of the evidence that supports global recommendations. Human Reproduction Update, 24(3), 300–319 (2018).

²Cohlen et al. IUI: review and systematic assessment of the evidence that supports global recommendations. Human Reproduction Update, 24(3), 300–319 (2018).

William Ombelet, a world-leading fertility expert, went on to write an editorial on this subject in 2017:

According to a number of high quality studies Intra-uterine insemination (IUI) with homologous semen should be the first choice treatment in cases of unexplained and moderate male factor subfertility. IVF and ICSI are clearly over-used in this selected group of infertile couples. The limited value of IUI in infertility treatment as mentioned in the 2013 NICE guidelines was surely a premature statement and should be adapted to the actual literature.³

Hmmm. That seems to be a polite and scientific way of saying that NICE may not know what they are talking about. Ombelet goes on to conclude:

...it's obvious that we are over-using IVF to treat unexplained infertility.

Anno 2018 evidence-based data clearly indicate that promoting IVF and ICSI to result in pregnancy "as quick as possible" ignores the advantages of IUI completely in case of unexplained and mild male factor infertility.

Translation: the clinics prefer to see no IUI, hear no IUI, do no IUI. But how can this be when the simple and undeniable fact remains that three rounds of IUI is just as effective as one round of IVF in the large majority of cases? Maybe because it is about 5 times cheaper on average?⁴ The website *Fertility Answers* confirms that IUI is almost as effective as, if not just as effective as, IVF:

Each cycle of IUI has about a 10-20% success rate, on average, for women under 35.... Therefore, you have a 30-60% chance of having a baby after trying 3 times.⁵

Let's stop here because I think we've hammered home that there is an industry bias towards IVF, probably because it is much more profitable for the clinics, which means IUI gets unfairly left by the wayside. We've also made clear that IVI and ICI are more simplistic approaches to treatment and their effectiveness is somewhat in doubt.

In the next chapter, we look in detail at actual costs, and in the chapter after that we look at success rates—that is, your chance of having a baby which is what it is all about.

³ Ombelet. The revival of intrauterine insemination: evidence-based data have changed the picture. Facts Views Vis Obgyn. 9(3), 131–132 (2017).

⁴Nandi et al. Intrauterine insemination with gonadotropin stimulation or in vitro fertilization for the treatment of unexplained subfertility: a randomized controlled trial. Fertility and Sterility 107(6), 1329-1335 (2017).

⁵ https://www.fertilityanswers.com/how-many-iuis-should-you-do-before-moving-on/



HOW MUCH WILL TREATMENT COST?



Let's start with some good news: there are plenty of infertility treatments out there, as we saw in the last chapter. Sadly, the bad news is most people can't afford most of them, especially when you consider that 3 or 4 or more rounds of treatment may be required to get to conception. There are cheap IVI and ICI kits out there, costing anywhere from \$100 to \$300, but they are, well, cheap.

The bottom line is that there simply are no truly viable low-cost alternatives out there today, which is why Marion and I decided to invent one 12 years ago. But our product, our123Baby, won't be on the market until later this year, so let's look at what is currently available today.

To underscore how expensive IVF treatment can be, consider this: 186 million individuals are infertile worldwide, but only 2.5 million of them are treated each year, and only a half million babies are born from IVF each year. It's a tiny minority. The reason seems undeniable—the majority are scared off by the cost. Studies show that only 38% of women who suffer from infertility even seek out information about infertility services. Only 17% of them end up using an infertility service. In 1995, the number was 20%, so the situation is worsening.¹

Another survey conducted by Cofertility found that 86% of people seeking treatment had to forego treatment, or consider foregoing it, due to costs.² No doubt because Cofertility also found that couples estimate the cost of treatment will be upwards of \$100,000, particularly if IVF is involved.

Beyond the hard cash costs you incur, there are also the intangible costs related to time and other factors. For all those who are tight for cash or tight for time—which is 99.9% of us these days—these additional costs need to be considered. That's a big reason why Marion and I invented the COPE Calculator—to give you a reality-based picture of how much treatment is really going to cost, including time spent travelling to the fertility clinic and then waiting in the waiting room, which can really add up after 3–4 rounds or more of treatment.

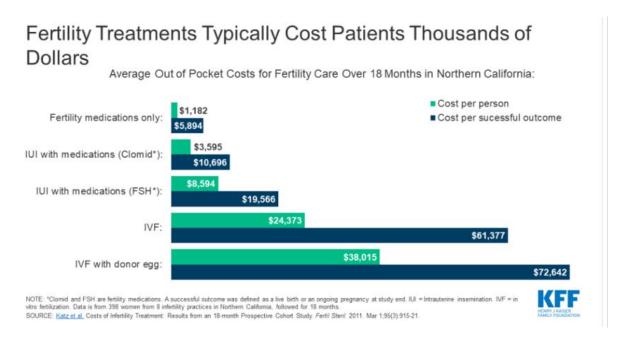
There is also your initial assessment and your follow-up visits, which take up more time. Beyond that, there is time spent haggling with your insurance company, which averages 3–9 hours per month, according to a survey by Cofertility.³ But we address all of these issues in the next chapter which covers the COPE Calculator so let's move on.

¹ https://www.cdc.gov/nchs/data/nhsr/nhsr073.pdf

² https://cofertility.com/fertility-survey-costs/

³ https://cofertility.com/fertility-survey-costs/

Let's look at some actual costs which are shown in the chart below. We chose this data and chart because it shows actual 'out of pocket' costs which is the grand total of what you will spend, including most importantly, the medications, which are often not included in cost estimates. It also shows the costs to get to a 'successful outcome' which is really what it's all about—and this is defined in the footnotes as either a live birth or an ongoing pregnancy when the study ended. These are American figures based on statistics from Northern California (shown below), but they are similar worldwide.



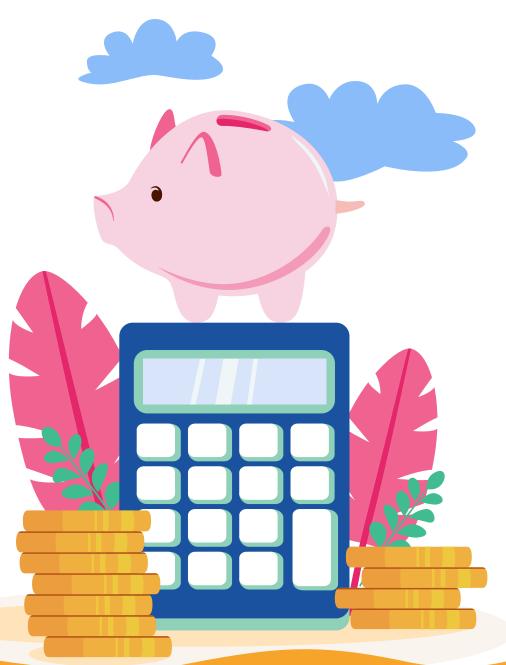
Take a look at the bottom portion first: IVF is going to cost you, on average, more than \$60,000 without using a donor egg, or more than \$70,000 with a donor egg. Even IUI will cost you, on average, roughly \$10,000 to \$20,000 to get to a successful outcome, depending on which medication is used, with Clomid being the lower cost medication and FSH (short for Follicle-Stimulating Hormone) being the higher cost option. At the top of the chart, you can see that the fertility medications alone to achieve a successful outcome will cost you, on average, almost \$6,000.

Why hasn't the price dropped significantly, you might ask. Great question! The history of the fertility treatment over the last 50 years is quite simple. It has been dominated by the fertility clinics. And when you have a monopoly, you can set the price.

The clinics won't like this book and they certainly don't like Marion and myself. We have felt their wrath at fertility trade shows we have exhibited at, where they have accosted Marion. It reminds me of all the horse owners who clung to their horses for many years after the invention of the car. Indeed, the Vatican compared the car to the devil and it was widely dismissed as a flash in the pan. With our 123Baby, Marion and I have not just a car, but a Model T type car for the masses, and so we are a threat to the status quo.

That's fine with us. The horse will probably never go away. They are useful in some circumstances like for rides around Central Park and so forth. But we predict that they will become a specialized niche as low-cost solutions like ours gain wide acceptance. We are ready for a battle but we will need your support along the way so please see our123Baby.com if you'd like to contribute to our cause and help us get to the promised land of affordable infertility treatment for everyone worldwide. our123Baby is not for everybody, but for 30% of infertile couples, it will be the ideal solution—and it's a step in the direction of ensuring that everyone worldwide has an affordable treatment option.

Let's look now at success rates because, after cost, this is the most important factor you will need to consider. Indeed, you need to consider both success rates and costs at the same time, and nobody else in the world is actually doing this (as far as we can tell), so Marion and I had to invent a new metric and a new calculator to measure these two factors together. Let's take a look.





WHAT ARE THE SUCCESS RATES OF TREATMENT?



Now that you are familiar with how to overcome infertility, we will look at success rates to see what your chances are. This is a complicated subject because there are so many factors that influence your chances of conceiving, not to mention some clinics and other companies selling products and services to help you have a baby, who, of course, skew their success rates to prove they are the best option.

In addition, it is well documented that clinics will turn customers away if they think they will drag their success rates down. And they have a fanatical focus on success percentages which doesn't really serve the customers that well. The website eggdonationfriends.com summarized the problem:

From a business point of view, clinics are better off showing success rates that help their marketing. Unfortunately, from the point of view of patient education, such practices have no justification.¹

So, let's take a step back and start with the whole notion of 'success rate'. The first thing you need to know is that the term "success rates" usually means the clinics' success making a profit, not your success making a baby. Put more bluntly, you might just get your baby by paying for IVF in a clinic, but it might just bankrupt you too, making it impossible to feed your baby.

Perhaps that's a bit harsh, but it highlights the fundamental problem with the way success rates are presented today, which is that they do not adjust based on cost, so it's almost impossible for you, the customer, to really understand success rates, let alone compare them. You have to compare apples to apples, right? But in the fertility treatment industry you get pears, peaches, and strawberries.

That's why we invented the COPE metric—which, again, is short for your COst per PErcentage of success. It's a new apple for the industry, with apologies to the great God on high, Steve Jobs, RIP. Our COPE Calculator enables anyone to compare apples to apples. We'll get to it later in this chapter.

To further clarify the problem, let's now take a closer look at published success rates. Here is what the NHS in the UK says about IVF success rates:

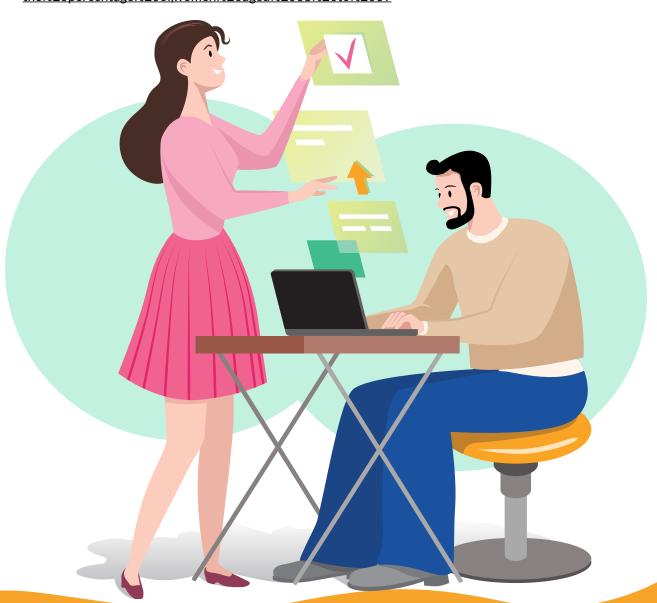
¹ https://www.eggdonationfriends.com/cumulative-pregnancy-rates-or-cumulative-live-birth-rates-what-do-they-mean/

In 2019, the percentage of IVF treatments that resulted in a live birth was: 32% for women under 35. 25% for women aged 35 to 37. 19% for women aged 38 to 39.²

Sounds good, right? 32% and 25% are better odds than the 0% that infertile couples are facing. If I'm a bookie in Los Vegas, I'll take them odds any day. But there's a big problem. Did you catch it? We pointed it out at the beginning of the book: there is no indication of how many rounds are involved with these percentages. It looks like first round data but in reality you may require 3, 4, or even 5 rounds of IVF.

This is why in the COPE Calculator we measure cumulative success rate and not success per round. Thus we measure the cost to get to a successful outcome, which for you is enduring as many rounds as you need to get to the live birth of your baby. Cumulative success rate being the increasing chance you get with each round. This is also critical because there's a big difference between each round. IUI is particularly successful in the

https://www.nhs.uk/conditions/ivf/#:~:text=Chances%20of%20success&text=In%202019%2C%20 the%20percentage%20of,women%20aged%2038%20to%2039



first round (30-50%) but then tails off. IVF is more consistent (30-60% for each round).

The COPE Calculator also lets you specify the age of the woman because this is critical when it comes to success rates. Here is the results of the COPE Calculator for IVF for a woman who is under the age of 35, and who undergoes 3 rounds of treatment:

CALCULATIONS	IVF
Total Cost of Treatment	\$46,500
Cumulative Success Rate to Live Birth	62%
COPE	\$752

For all calculations, use of medication is assumed. In this example, you are looking at paying about \$46,500, on average. This gives you a cumulative success rate of 62% of having your baby after 3 rounds, which is actually pretty good. However, note that the COPE is \$752. This means that you are paying \$752 for every 1% chance of success. This is the apple—the standard measure you can use in the COPE Calculator to compare IVF costs with IUI costs.

You can try out an interactive version of the COPE Calculator for yourself on our website: <a href="https://our.ncbe.nih.gov/

Suffice to say the COPE metric for IVF is prohibitively high at \$752. For the rest of us, there is IUI. Before looking at the COPE metric for IUI, let's look at some published success rates from Pacific Fertility Center in Los Angeles (PFCLA) for IUI:

For women in their early 30s or younger, the success rate is around 20–25%. For women aged 30 to 35, the success rate of Intrauterine Insemination is typically 15–20%.

Once again, it's not clear if this is cumulative or per cycle. And they still don't mention the cost factor, which is anywhere from \$1,000 to \$3,000 dollars per round. It also doesn't include hidden and intangible costs, primary among which is waiting times and travel times to and from the clinics, talking to your insurance company, filling our insurance forms, etc.

Also, did you notice something. There's no unit. 20–25% to do what or achieve what? Once again, read success rate quotes like a lawyer. There's two types of units that are used. Pregnancy, often referred to as Clinical Pregnancy and abbreviated with CP. And Live Birth, often abbreviated as LB.

Some studies use the acronym PR which is short for Pregnancy Rate. A lot can happen though between pregnancy and live birth, most significant among which is a miscarriage, and the average miscarriage rate is 20–25% globally, so there is a big difference between pregnancy and live birth.

The COPE Calculator always shows Live Births because that's the definition of successful outcome for you, the couple trying to have a baby. In fact, Marion had to do a lot of our

own calculations to get to Live Births for IUI because this data is not really available.

Regardless though, success rate calculations are very problematic to calculate because there are just so many factors that impact infertility and it was not possible to include all of them in the COPE Calculator, but we want you to be aware of them. Beyond just the age of the women and the number of the rounds, there are the wide variety of issues that cause infertility, described in chapters 3 and 4, all of which have different impacts on your success rates. For example, the Pacific Fertility Center of Los Angeles (PCFLA) lists these success rates:

- If you are experiencing unexplained infertility with healthy eggs and two fallopian tubes, IUI success rates are around 7% to 10% per cycle. If you use IUI treatment in combination with fertility medications your success rate increases by 15–25%.
- A single open fertility tube means one of the fallopian tubes is blocked. Pregnancy can occur but the success rate depends on the location of the blockage. If the blockage is near the ovary, the IUI success rate is 11.7%. If it's close to the uterus, the chances of success are around 38.1%.
- If the intended father is experiencing male factor infertility, IUI success rates are around 16.9%.

One final note about using medication, and how that impacts success rates. Fundamentally, medication does up your percentage of success, quite significantly in most circumstances. However, we've designed our123Baby so that medication is not required. This will inevitably reduce our success rate, but if you are against medication in general then it's not a bad option. So with our123Baby, you are probably looking at 5% to 10% success rates per round, at best, without medication. Not great, but that's still a heck of a lot better than what you are facing now, which is 0% if you suffer from infertility.

Now let's look in more detail at the costs related to IUI because they are much cheaper than IVF. Here is the COPE Calculator showing once again the default values: which is three rounds of IUI for a woman under the age of 35:

CALCULATIONS	IUI
Total Cost of Treatment	\$8,400
Cumulative Success Rate to Live Birth	50%
COPE	\$169

The total cost is down to about \$8,400 to get to a 50% success rate after three rounds,

but the COPE is still a whopping \$169 for every 1% chance of success. Compared to the IVF COPE of \$752, it's a huge reduction, but still very expensive. Affordable for some perhaps but for everyone else we invented our 123 Baby.

Our aim with our 123Baby is to get a COPE less than \$50.

So, all of this doom and gloom talk does have a happy ending, or it will soon when our product is on the market. Marion and I looked at all these shortcomings of clinical treatment many years ago and felt there had to be a better way. We knew that couples would be ultra-motivated to have children and they would certainly put in the work to do it at home if they could. And that was the starting point for our 123Baby.

Very soon, when it hits the market all over the world, it will be a comprehensive solution that is first and foremost affordable! It will cost just hundreds per cycle. The spectacular cost reduction, and the general understanding that IUI-like procedures should always be the first line of treatment, should make our123Baby the first line in the global standard of care for treating infertility.

Not only that, with our 123Baby, you need not ever enter a fertility clinic. Couples can use it on their own at home with a bit of help from one of our our 123Baby Professionals. These are certified professionals who can help you with all 3 steps of the 123, and in particular, step 3, which is insemination.

As I write this, we're lining up Professionals all over the world to help deliver treatment in the comfort of your home, or even via mobile transport units, which is something we are looking at in Africa. The product is so revolutionary that before couples can use it on their own we will have medical professionals assist with the procedure.

Another big advantage of our 123Baby is that masturbating while watching porn to obtain the ejaculate required for IUI is no longer required. Believe it or not, there are actually studies that show that masturbating at home results in better semen quality. Here is the conclusion of one study:

Compared with clinic-collected semen, home-collected samples had statistically significantly higher values for sperm concentration, total sperm count, rapid progressive motility, and total count of progressive motility....The present results demonstrate superior semen quality in samples collected by masturbation at home compared with at a clinic.³

Since you can do everything at home, you can ejaculate wherever you want. Just make sure to have the specimen cup (included with our 123Baby) ready.

And here is a tip: make sure to unscrew the top of the cup before you climax, so that there is no last-minute scrambling.

³ Elzanaty et al. Comparison of semen parameters in samples collected by masturbation at a clinic and at home. Male Factor 89(6), 1718-1722 (2008).

We're not big fans of porn but it's also none of our business how you get the semen into the cup. Another big plus though with our123Baby is that you can have normal sexual intercourse and avoid the porn altogether, and just have the man pull out at the last minute and ejaculate into the cup. Call us old-fashioned, but it's kind of nice to have the option to have sex at home to make your baby.

Moreover, infertility treatment is a private issue and, with our 123Baby, no one needs to know what you are up to. I'm old enough to remember the days before surveillance cameras were everywhere and before Google could somehow read my mind and sell me products I was thinking about. So, our 123Baby is a throwback. Total privacy for the most private act of all—making babies. It's your baby. It's your business. No one else needs to know, except for an our 123Baby Professional, who can assist with the treatment, and in particular with the insemination.

The bottom line at our 123Baby is that we define success by all the happy moms and dads out there who give birth to happy and healthy babies. Success is yours, not ours. You do the work so we're shifting the focus to the couples.

Alright, this is a free book so we felt obligated to shamelessly plug our own product, but it won't be on the market until later this year, so in the meantime, the next chapter presents a variety of free treatment options that you can use immediately.





WHAT CAN I DO RIGHT NOW THAT IS FREE?



There are plenty of free things you can do to increase your chances of overcoming infertility, so we will end this book on an optimistic note and describe what they are. So here's our list, and just a heads-up—it's pretty harsh but it's based on seeing too many parents hurt themselves and, in turn, their children, with bad lifestyle choices, so we feel pretty passionate about it:

- Yoga and meditation. As discussed in chapter 3, there is increasing evidence that men can overcome infertility through yoga and meditation. Indeed, the data seems to be quite clear: you can overcome male-factor infertility within about six months just with lifestyle modifications, such as yoga and meditation, and the various other changes described below. All of which reduces the oxidative stress in your cells, which is just a fancy way of saying it allows your body to get healthy again.
- Stop smoking. It's gross. It's killing you. The second-hand smoke will slowly kill your kid, too. Back when second-hand smoke was cool, I endured a lot of hours in cars with closed windows. No fun. For the ladies, here is another sobering statistic: up to 13 percent of female infertility is caused by cigarette smoking, and the risk of miscarriage is higher for pregnant women who smoke.¹

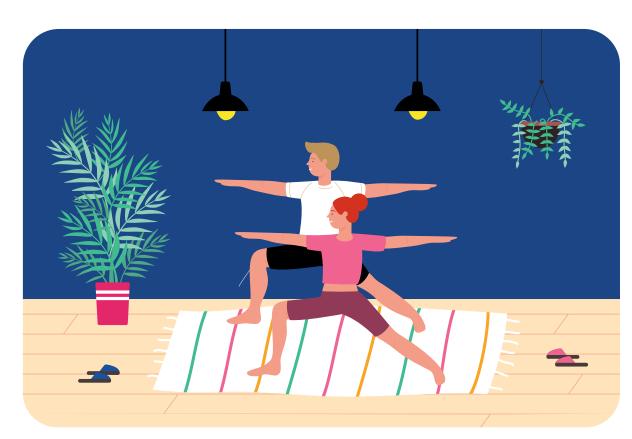
¹ https://www.reproductivefacts.org/faqs/quick-facts-about-infertility/



Stop or reduce drinking. Trust us on this one because we have three kids: you'll need to devote every ounce of energy you can spare to your kid or kids. Alcohol takes your energy away and it depresses you. Also, keep in mind: just because something is legal doesn't mean it's not incredibly addictive and incredibly damaging—sometimes even more so than the illegal stuff.

And here are a few more that are just for men:

- Stop wearing those tighty-whities. Sure, it's a retro fashion statement for some but those super-tight brief-style underwear can reduce your sperm count. Boxers are better for your little fellas. Same deal with tight biking shorts, leotards, unitards... you get the point.
- Keep your laptop off your lap, fellas. This is not a myth. Rename it the tabletop if you need to remind yourself not to use it on your lap. The heat from your laptop is known to damage sperm.
- Turn your WIFI off whenever you don't need it because the early science indicates that it may also damage your sperm.





AFTERWORD



Thanks for reading our book. We hope you have learned a lot and that you are now armed for your battle against infertility. It won't be easy, and at times you may want to give up, so I'd like to end by telling you our story in the hopes that it will inspire you to never give up on your hopes of having children.

My story starts with a confession: for most of my life, I never wanted kids. Don't tell anyone, please, 'cause it's just too ironic that I helped create a product that helps people have kids. Old friends who haven't seen me for a while still laugh when they hear the news. I think my mom is still in shock.

Why was I against having babies for so long? Well, primarily because of what I learned in high school, which is that the world is overcrowded and we don't need any more babies in it. So, I decided to do my part and not have babies. How ironic, right? Now the opposite seems to be true. Everyone is panicking about the world being under-crowded—if that's even a word. "Population decline" is the official term. "The end of mankind" is what some are calling it.

Despite the paradoxical rumors of population decline, even 30 years later, my beliefs had become further entrenched. In the same way that Mr. T used to pity fools, I pitied couples who disappeared from view for two years when they had a baby and found it almost laughable at how un-cool they became. There is no good reason to not get drunk on a Friday night! Don't be so BO-RING!! Give the rugrats to Grandma and let's party. Yikes. It's embarrassing to even write rugrats today. Who even thought of that expression?



And then I met Marion, and everything changed. I unlocked her from being trapped in a dungeon and we fell madly in love. And this is not a metaphor—when I first met her she was locked in the basement of a bed and breakfast hotel in Toronto, and the knob had fallen off the door to the basement, so she was furiously pounding on the door and I was just the first one to hear it, and let her out.

Long story short, we decided to have kids right away. Neither one of us was all that young anymore, and we both have a healthy dose of insecurity and thought we might be infertile, so we were anxious to get started right away in case we hit issues. Added to that, Marion was actually working as a post-doctoral fellow on an infertility project at the University of Toronto, and we spent many of our early days discussing infertility. What a great date night!

Luckily for us, we didn't hit issues, and Marion produced three kids over the next 10 years. We joke that she "did it all by herself" which is a slight exaggeration, but only slight. I wish I could say we used our our123Baby product to help conceive all three of our kids and then the 123 would represent our kids like I did it in the dedication.

What a marketing hook that would be for our company! We could have slapped pictures of the kids all over the company website and we could have even branded the company logo on their foreheads as a sort of mobile branding campaign. Just kidding.

So that marketing hook doesn't work. But our three kids did give me a different marketing hook for our company. They gave me hope. When you have kids, you simply have no choice: you have to have hope for the future, and you have to live that hope in the present and use it to create a better world for them in the future. This idea underlies everything we do at our123Baby. We believe that hope underlies everything that you are doing too and we will do everything we can to help you get that baby.

We will end with one final story of hope. Recall that bed and breakfast hotel in Toronto where Marion and I met? Marion and I befriended one of the owners of that hotel while in Toronto and we had him, and his wife, over to dinner just after our first baby, Mark, was born. His wife burst in to tears upon seeing Mark and she shared that she had been struggling for years to conceive and that she had just suffered a miscarriage. She was over 40 years old and it wasn't looking good for them to start a family.

But then, less than a year later, exactly on Mark's first birthday, she delivered a baby girl. The magical and mysterious powers of the universe had gifted her a little miracle—with a bit of help from IUI.

Keep hope alive. You shall overcome.

