

MAKING PARENTHOOD A REALITY

Expert advice on overcoming fertility
issues and starting a family

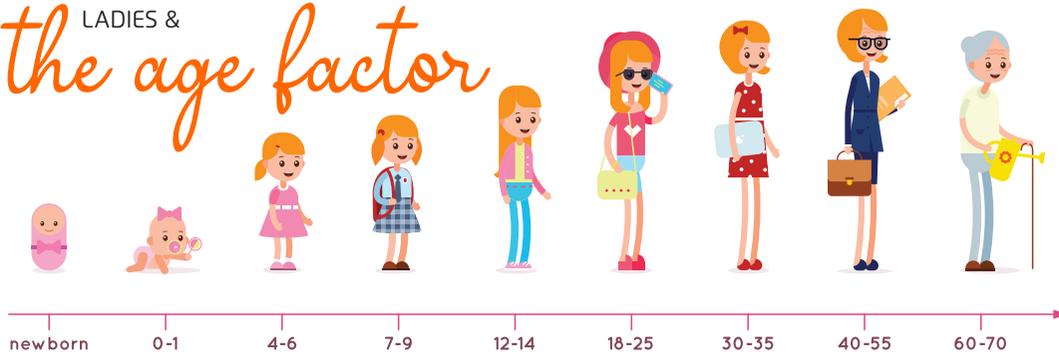
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LADIES & *the age factor*



We can argue that Mother Nature is chauvinist all day long, but the unfortunate fact remains that a woman's fertility decreases with age. Let's see how you can strike a compromise between biology and personal empowerment.

Age: It's More Than Just a Number

These days, many women opt to focus on personal development first, whether it's to pursue further education or to have a stable career, before committing to starting a family with their partner. Unfortunately, this also means that they will be attempting to conceive when their peak fertility period has passed them by. This can be an issue – a woman's advancing age remains the most common cause of her difficulties in conceiving a child.

Hold On... Say That Again?

Simply put:

- A woman's most fertile period is usually during her mid-20s.
- Her fertility begins to decline after the age of 30, often when she is finally ready to settle down and start a family.

To understand why this is so, we first need to understand how the ovaries work.

- A woman's egg cell develops from a pre-existing cell in the ovary called the primordial follicle. This process occurs under the influence of hormones such as the follicle stimulating hormone (FSH).
- Now, the woman is born with a set number of primordial follicles. No new primordial follicles will be made after she is born. Therefore, once all her primordial follicles are used up, she will no longer be able to produce any more egg cells.



- A woman only has approximately 10% of her egg reserve remaining by the time she turns 30, and the reserve continues to deplete until she reaches menopause and, hence, the end of her childbearing days.

There's More...

Also, the quality of the egg cell tends to decrease with the woman's age. This may occur even when a woman still has a good number of primordial follicles. This is because good quality eggs tend to be released during the woman's most fertile period. Egg cells produced at a later age tend to have a higher risk of being abnormal. For example, women 40 years and older face a 1-in-40 chance of having a baby with Down's syndrome.

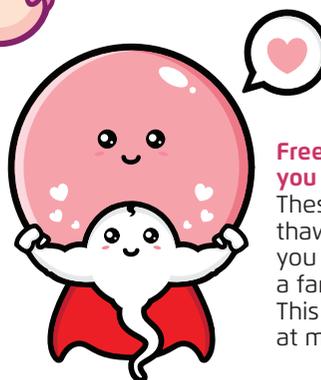
IS IT TOO LATE TO
start a family
IN MY 30S OR 40S?

Oh, don't worry, the chances of having a baby may decrease as a woman ages, but there are still options to explore.



Get help from a fertility specialist.

A fertility specialist can run a test called the anti-Müllerian hormone test to estimate how many primordial follicles remain in your ovaries. For this test, you only need to provide a sample of your blood. Once the test result is in, the fertility specialist can advise you on your best options.



Freeze your eggs when you are at a fertile age.

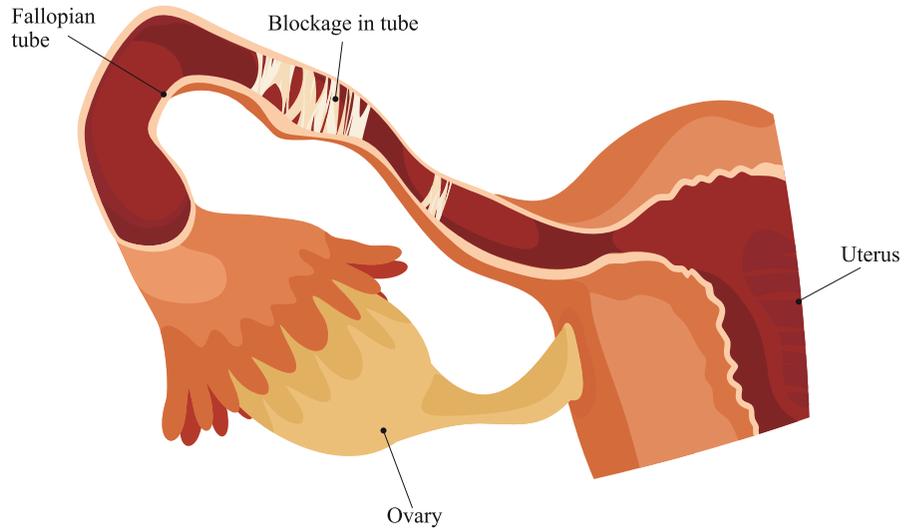
These eggs can be thawed and used when you are ready to start a family at a later age. This service is offered at most fertility clinics.



There are many possible reasons, given that the woman's reproductive system is a complex one regulated by many hormones. One small misstep somewhere can lead to big problems. Here are some of the more common issues.

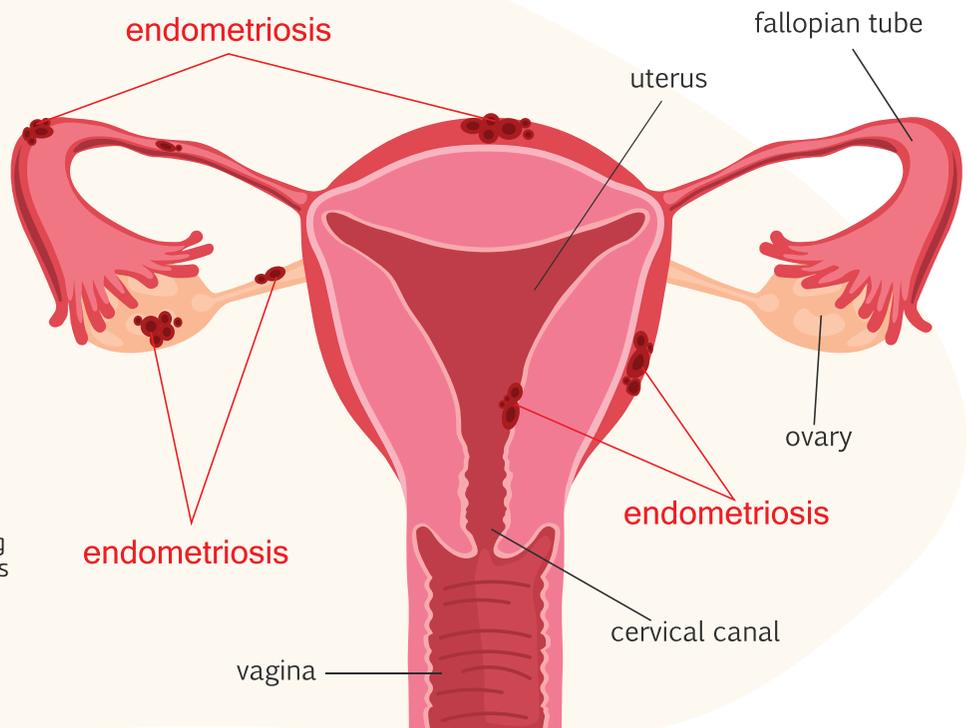
Issues with the Fallopian Tubes

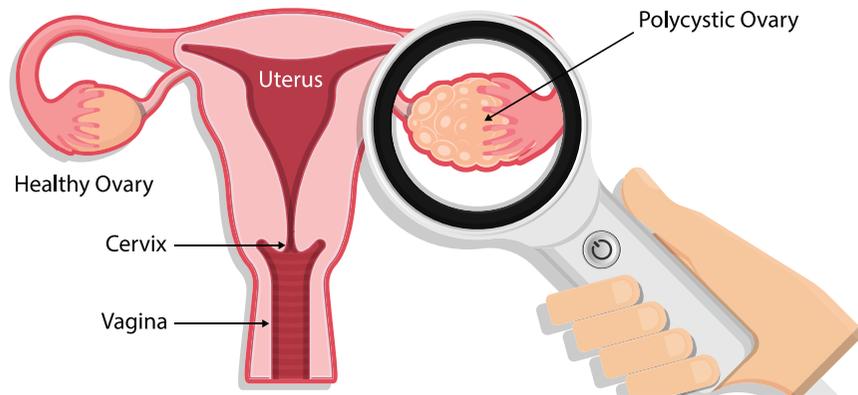
These issues include blockage and damage which prevent the egg cell from ever meeting the sperm cell. A common cause of this issues is **pelvic inflammatory disease (PID)**. PID may not show symptom, hence many women are unaware that they have it.



Endometriosis

The innermost layer of a woman's uterus is called the endometrium. **Endometriosis** arises when tissues from the endometrium grow outside of their usual place in the endometrium, such as the fallopian tubes, ovaries and even in the pelvis. Aside from great pain, a woman with endometriosis experienced a reduction in the number of egg cells she can produce as well as quality of these egg cells.





Polycystic Ovary Syndrome (PCOS)

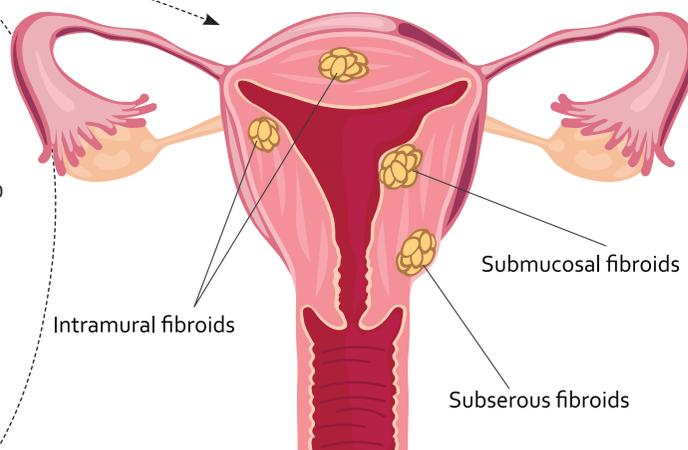
Polycystic ovary syndrome (PCOS) is a lifelong condition that give rise to several bothersome, uncomfortable and even painful symptoms. Depending on the severity of her PCOS, the affected woman's

ovaries may fail to regularly release eggs. It is not unheard of for women with PCOS to not have their period for up to six months, perhaps even a year. This naturally affects their ability to have children.

Problems Affecting the Uterus

These problems include the presence of fibroids, which can affect the ability of a fertilized egg to implant into the endometrium or displace the fallopian tube and make it difficult for the sperm cell to meet the egg cell.

Another, rarer condition is adenomyosis, which is a type of endometriosis. In this case, endometrial tissues are found in the wall of the uterus, giving rise to an enlarged uterus, heavy and/or prolonged bleeding during menses and pain.



The good news is, all of these conditions listed here can be treated or managed. When you visit a fertility clinic, one of the first things you undergo is a medical check-up to detect these and other problems that may be affecting your ability to have children.

WHEN A MAN

doesn't have enough juice

In the past, when a man doesn't have produce sperm cells, fatherhood can be an impossible dream. Things have changed for the better, though!

Let's get a common misconception out of the way first: a man can be tall, rugged, muscular and covered with body and facial hair, but he can still have a **low sperm count** that keeps him from becoming a father.

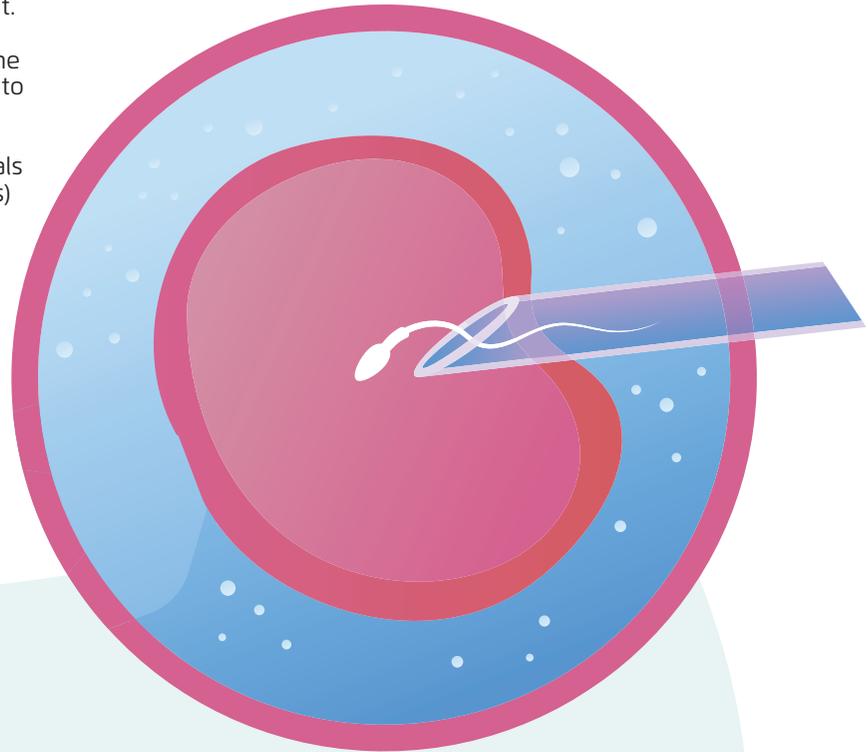
This is because low sperm count has nothing to do with how "manly" a man looks or behaves. Instead, it is usually due to one of the following reasons.

Something affected the sperm production process. About 15% of men with zero sperm count (**azoospermia**) are born with defects in their Y-chromosome. Hormonal imbalances can also affect sperm production – one common example is the use of **anabolic steroids** by men who want to improve their physique. Something is blocking sperm cells from being present in the man's semen. Typically, this is due to past infections, previous surgery that led to obstructive scar tissues or trauma to the genitals.



What can be done about low sperm count?

A visit to the fertility clinic is necessary to confirm that the man has indeed low sperm count. Based on the test results, the fertility specialist will prescribe the appropriate hormone treatment to improve the man's sperm count. The man will provide his sperm sample at predetermined intervals (usually once every 4 to 8 weeks) for assessment.



If good improvements are seen

The fertility specialist may recommend simple fertility treatments such as **intrauterine insemination (IUI)** to help the couple have a child.

IUI involves extracting the man's sperms and placing them directly into the woman's uterus. This is done in order to place the sperms nearer to the fallopian tube and hence increase the chance of fertilization of the egg cell by a sperm cell.

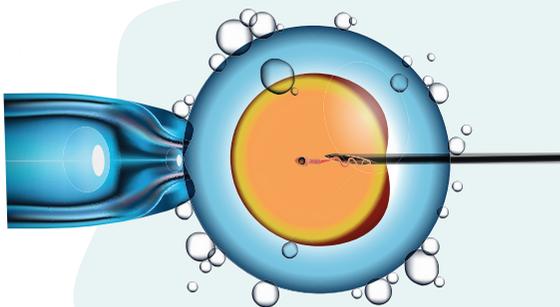
In most cases, though, the sperms would be frozen and used later for **in-vitro fertilization (IVF)**.

We'll go into more detail about IVF in a later chapter.

if still no good improvement are seen
There are a few possible options to consider.

Percutaneous epididymal sperm aspiration (PESA) is carried out if there is a blockage in the vas deferens preventing sperm cells from being present in the semen, or if the vas deferens is absent from birth. A very fine needle will be inserted into that structure to collect some epididymal fluid. The fluid will then be examined carefully under the microscope to locate healthy-looking sperm that can be used for ICSI-IVF or frozen for later use.

Testicular sperm aspiration (TeSA) is an option when there is no sperm cells observed in the man's sperm sample. The procedure is nearly similar to PESA, only this time the fine needle is inserted directly into the testicular tissue instead of epididymis.



ICSI-IVF. In ICSI-IVF (ICSI is short for intracytoplasmic sperm injection), the embryologist will directly inject a single sperm cell into an egg cell using a thin hollow needle-like structure called a pipette. This procedure will be repeated for every egg harvested from the woman. This process improves the chances of a successful fertilization compared to IVF without ICSI, although it does not guarantee a 100% chance of success.



WHERE DO
fertility treatments
FIT INTO MY HOPES & DREAMS?

You have read about fertility treatments and the issues that affect fertility. So, what does this all mean? Here are 3 important take-home messages.

IVF is not necessarily the “final solution” or “last resort”. It can also be the first option to successful conception.

Many couples consider IVF only after they have exhausted all other means or have been trying to conceive naturally for so long. Adopting this attitude can lead to stress and heartaches that can threaten the fragility of a relationship.

Therefore, don't wait. If you wish to have a child, it may be a good idea to undergo a fertility check first. The results will give you and your partner a clearer picture of your chances of success in conceiving naturally, or whether IVF is a better option to maximize your chances.

However, IVF is NOT the “magic cure” that will solve all your fertility problems.

Fertility problems can be caused by many factors, some of which have been covered in the last few chapters.

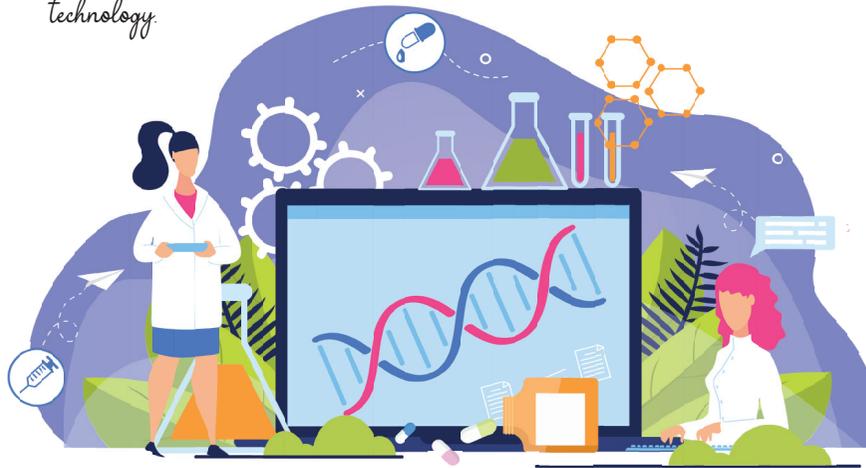
IVF is not a long procedure that will disrupt the couple's normal routine. In fact, it's quite flexible these days!

These days, with the current level of technology, IVF is very 'couples-friendly'. Your fertility specialist can transfer a fertilized egg into your womb at a time most suitable or convenient for you and your partner.

FERTILITY TREATMENT &

genetic screening

Here's an interesting proposition: we know abnormalities in our genes can give rise to genetic disorders that can be passed on to our children. Imagine if we can find out in advance whether the child we are carrying will have such disorders, to better prepare ourselves. Now we can, with genetic screening technology.



Raising a child that suffers from a genetic disorder can exert a severe emotional and financial toll on any couple. This is why genetic screening is offered by certain fertility clinics – it allows parents wishing to conceive a child to be aware of the risks and to prepare themselves to do what is best for themselves and their child.

What kinds of genetic screening are there?

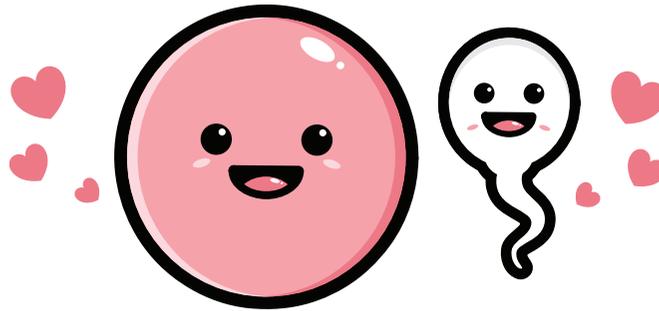
While technological developments have allowed these screening tests to achieve highly accurate results, accuracy is still not 100%. Hence, your fertility specialist may recommend screening at several stages of the IVF (*in vitro* fertilization) and pregnancy process.

Pre-conception genetic screening. This is to check whether both parents are carrying genes that can put any child they conceive at risk of developing a genetic disorder.

Pre-implantation genetic screening. A sample of cells is carefully extracted from the embryo to determine whether there is any genetic abnormality present.

Prenatal genetic screening. This is to test whether the baby one is carrying has genetic disorders.

Do not worry if you are not well-versed in genetic matters. Many fertility clinics have a genetic counsellor that can advise you on the types of screening best suited for your needs. Once screening results are in, he or she will help you understand the results, as well as offer advice and information on how you can best manage any unexpected outcomes of the screening.



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