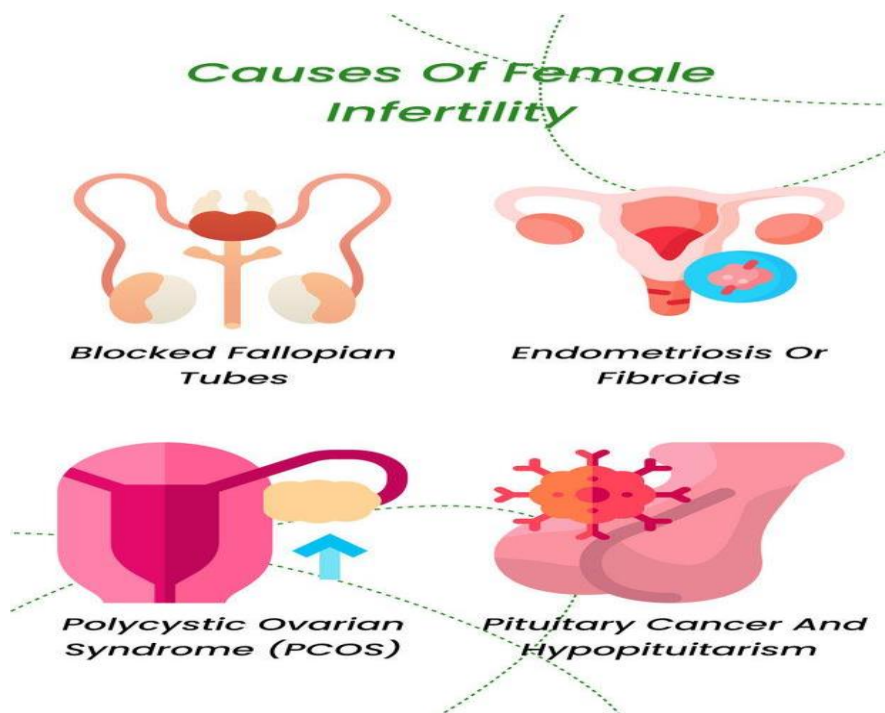


# Stem Cell Treatment For Female Infertility 2023( All You Need To Know)

Today, nearly 15% of couples face trouble while conceiving, either due to male or female infertility, or a combination of both. Assisted Reproductive Technology (ART) has come a long way, giving some hope to such couples. However, these treatments are prohibitively expensive. They are also artificial. The mother must undergo several hormonal treatments, impacting their health in the long run. But soon, that could all be a thing of the past. A much more natural treatment, called stem cell therapy, has been showing impressive results in treating female infertility, all by using the cells already present in our bodies! Want to know more? Continue reading!

According to the WHO, female [infertility](#) is the inability of a woman to get pregnant after one year of unprotected sexual intercourse (six months for women over thirty-five years).

Female infertility is due to several causes like:



- Tubal disorders, including blocked fallopian tubes
- Uterine disorders like [endometriosis](#) or fibroids
- Disorders of the ovaries like Polycystic Ovarian Syndrome (PCOS)

- Endocrine System disorders like pituitary cancer and hypopituitarism, which causes an imbalance of reproductive hormones

The main symptom of [infertility](#) is the inability to get pregnant. Women suffering from infertility might also have menstrual cycles that are too long (more than 35 days apart) or too short (less than 21 days apart).

***What tests are required to diagnose female infertility?***

## *Tests Required To Diagnose Female Infertility*



Several tests might be required, depending on your symptoms, but some of the common ones are:

- A blood test to determine if you are ovulating
- Ovarian reserve testing to check for the remaining number of eggs in both ovaries
- Hormone testing, in which levels of ovulatory and pituitary hormones are checked
- Imaging tests like a pelvic ultrasound to rule out uterine or ovarian disease

***Are you or your loved one diagnosed with female infertility?***

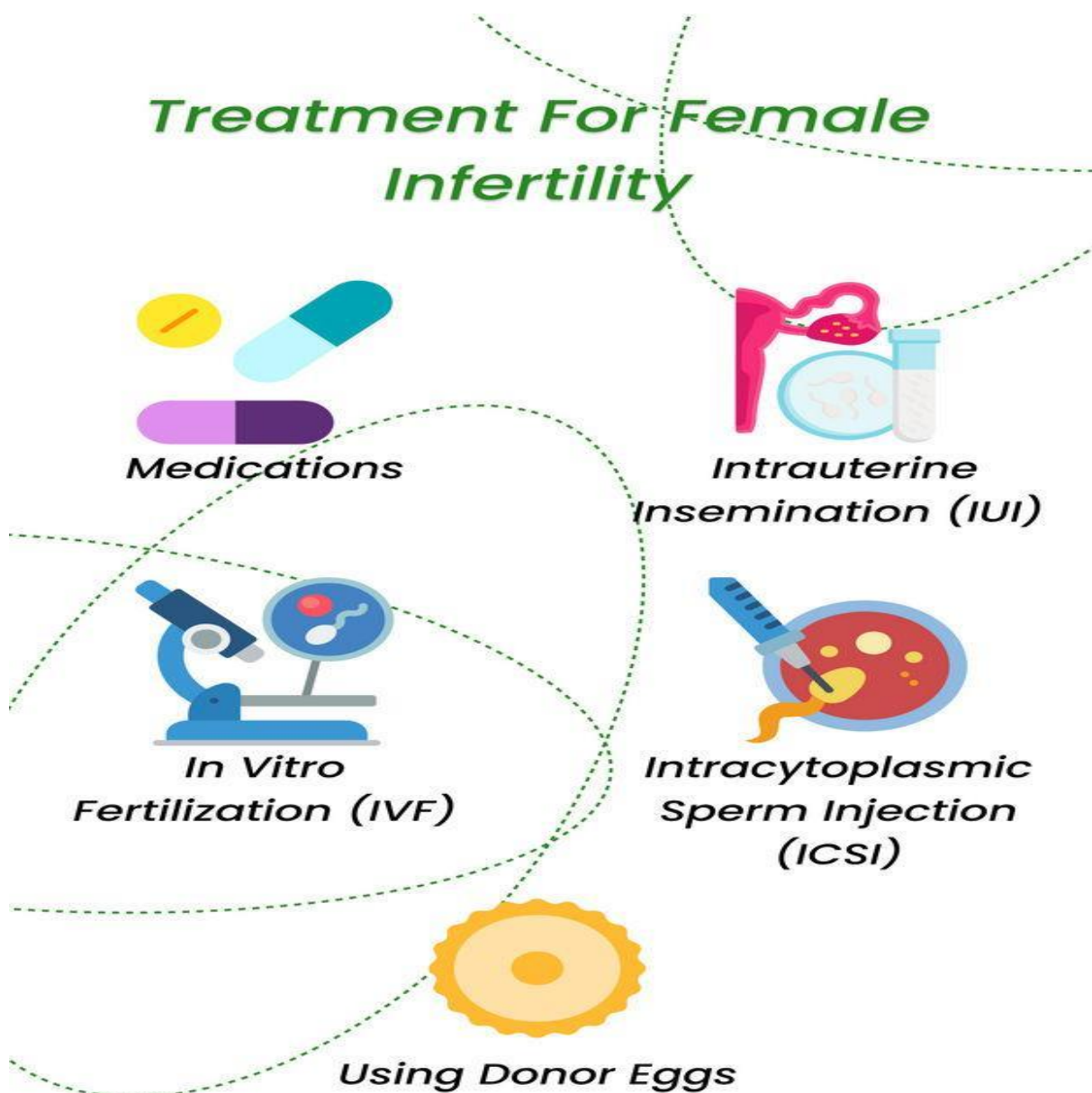
***Do not get disheartened!***

There are several options to treat female infertility and fulfill your dream of getting to live the beautiful phase of motherhood.

***This must have made you excited to learn about them, right?***

***So, here you go!***

## **Popular Treatments for Female Infertility**

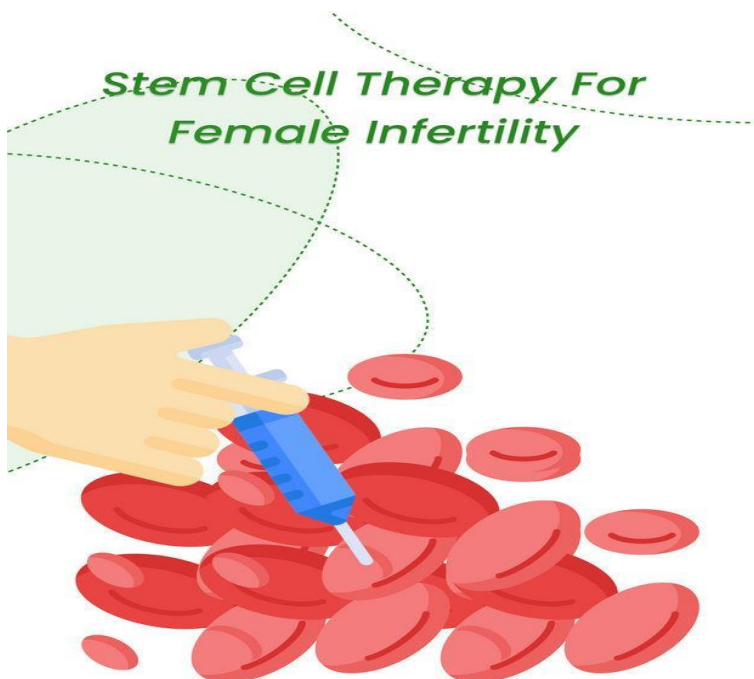


Over the years, several treatments have been developed to treat female infertility. Some of the most popular ones are:

- Fertility medicines like clomiphene citrate or anti-estrogens to regulate ovulation
- [Intrauterine Insemination \(IUI\)](#)
- [In Vitro Fertilization \(IVF\)](#)
- Intracytoplasmic Sperm Injection (ICSI)
- Using donor eggs

## Stem Cell Treatment for Female Infertility

So, what exactly are stem cells?



Well, **stem cells** are immature cells found in our bodies, which can differentiate into any tissue. They possess special repair and regenerative properties which have shown the potential to cure several diseases.

The main types of stem cells are embryonic stem cells, mesenchymal stem cells, spermatogonial stem cells, and induced-pluripotent stem cells.

Embryonic stem cells have shown good results, but their use has thrown up major ethical concerns. The other commonly used stem cells, especially in the treatment of female fertility, are mesenchymal stem cells.

They are generally derived from the bone marrow of certain bones. In some cases, though, they can also be extracted from the fatty tissue of our abdomen.

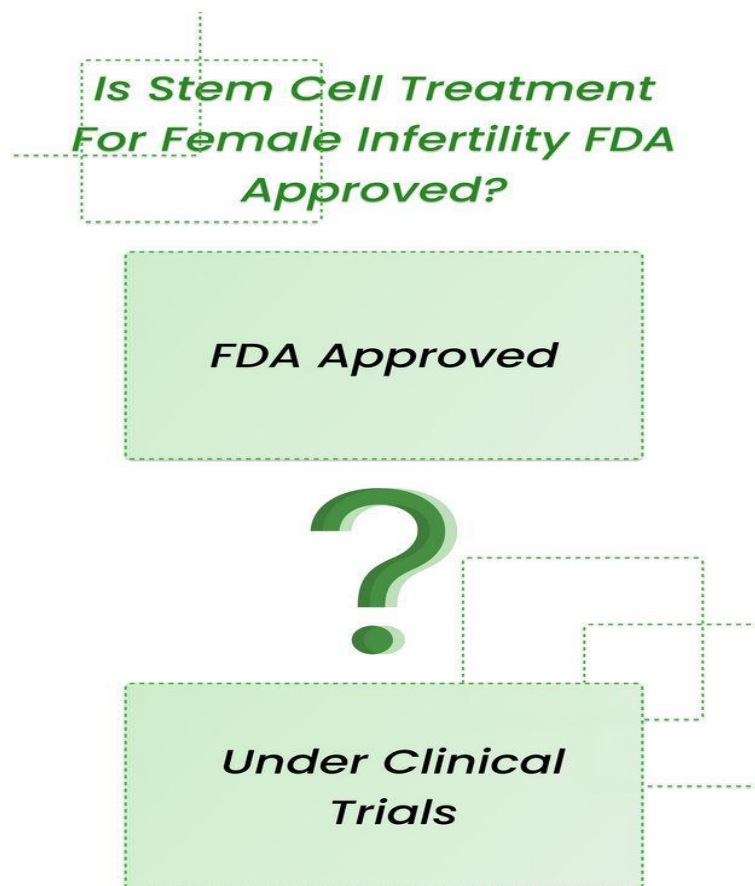
If the patient's own stem cells are used (which is usually the case), the transplant is called an autologous one. The usage of donor cells is called an analogous transplant.

***But how exactly do stem cells treat female infertility, you ask?***

Well, they encourage the repair of the damaged ovaries and the formation of oocytes (or eggs).

***Have you ever heard of another treatment that also gives this result?***

## **Is Stem Cell Treatment for Female Infertility FDA Approved?**



[Stem cell treatment](#) for female infertility is still undergoing clinical trials and is not FDA-approved. However, all the trials have shown promising results in reversing female infertility.

A research paper by Sarama Saha, Partha Roy, Cynthia Corbitt, and Sham S. Kakar, published in July 2021, explains the scope and future of stem cell treatments for female infertility in further detail.

First, the researchers examined the various types of stem cells. They also investigated several other therapies that treat female infertility.

They concluded that although embryonic stem cells have shown good potential, they are shrouded in several ethical issues. Mesenchymal stem cells derived from the bone marrow are the next best option.

They also stated that [stem cell therapy](#) “brings a ray of hope” to people for whom Assisted Reproductive Technology (ART) has failed. Although a lot of science is still left undiscovered in this field, the potential is immense.

They also stated that stem cell treatment can resolve genetic issues economically and is less invasive, which most couples prefer.

## **Does Stem Cell Treatment Work for Female Infertility?**

Stem cell treatment has shown several benefits in treating female infertility. While the treatment is still in its initial stages, it has shown a positive impact in helping women conceive.

***Yes, you read that right!***

***You are now closer to achieving your dream of parenthood!***

**But now you must be wondering, how does it work?**

Stem cells have numerous functions that can help treat a wide variety of diseases. The five properties listed below specifically help in treating female infertility:

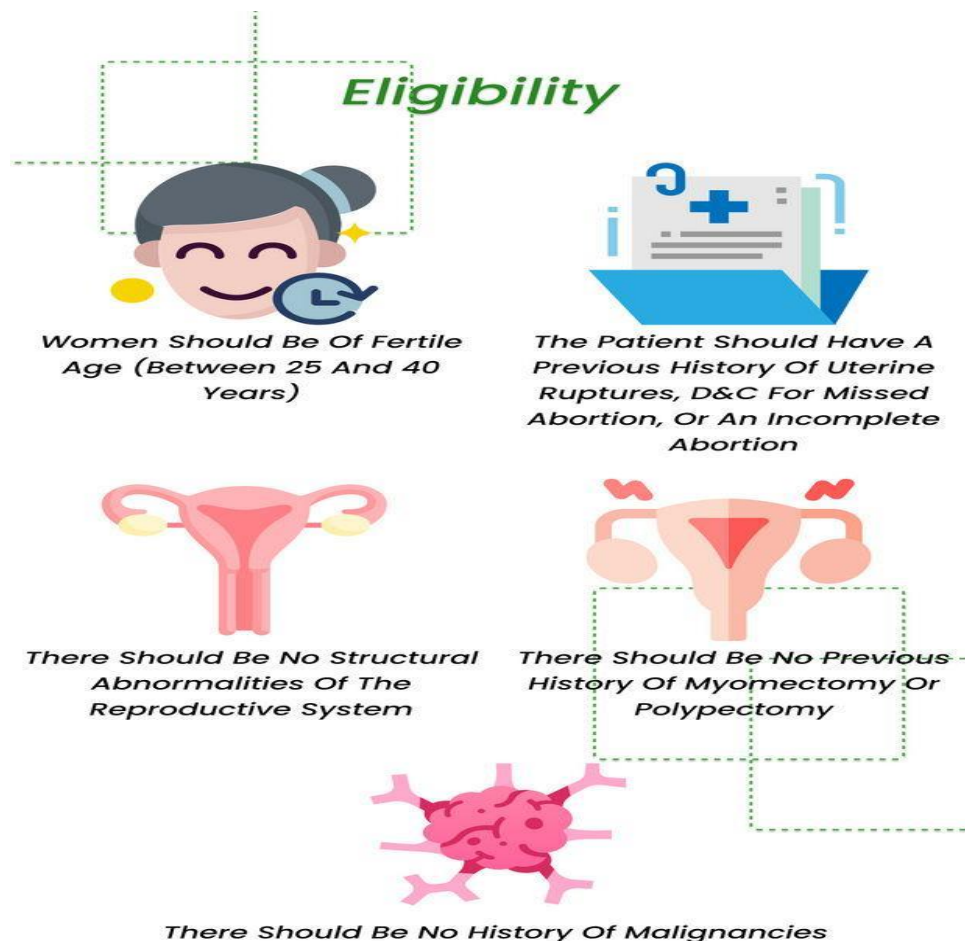
- They can replace and repair dead and damaged cells. Additionally, they have a 'self-homing property,' which means they can locate the damaged cells without direction.
- They activate dormant and suppressed cells, kickstarting cell division. This helps increase the number of new cells in the body.
- Stem cells secrete various enzymes, cytokines, and proteins, which promote cell proliferation, and inhibit the death of functional cells.
- Stem cells have an immunosuppressive function toward the natural killer cells of our bodies, enabling the cells to live longer.
- They promote the recovery of inter-cellular signaling, thus enhancing cellular functions.

## Eligibility

***Is every patient suffering from female infertility eligible to undergo stem cell treatment?***

***Not yet.***

All clinical trials have a strict set of requirements that are tailored to their studies. Some of the common ones are:



- Women should be of fertile age (between 25 and 40 years)

- The patient should have a previous history of uterine ruptures, D&C for missed abortion, or an incomplete abortion.
- There should be no structural abnormalities of the reproductive system.
- There should be no previous history of myomectomy or polypectomy.
- There should be no history of malignancies.

## Benefits and Risks



Like every medical treatment, stem cell treatment also has its benefits and risks.

**Benefits**

**Risks**



Can increase the number of eggs in the ovaries

Infection at the site of transplantation

Less invasive treatment

Nerve damage

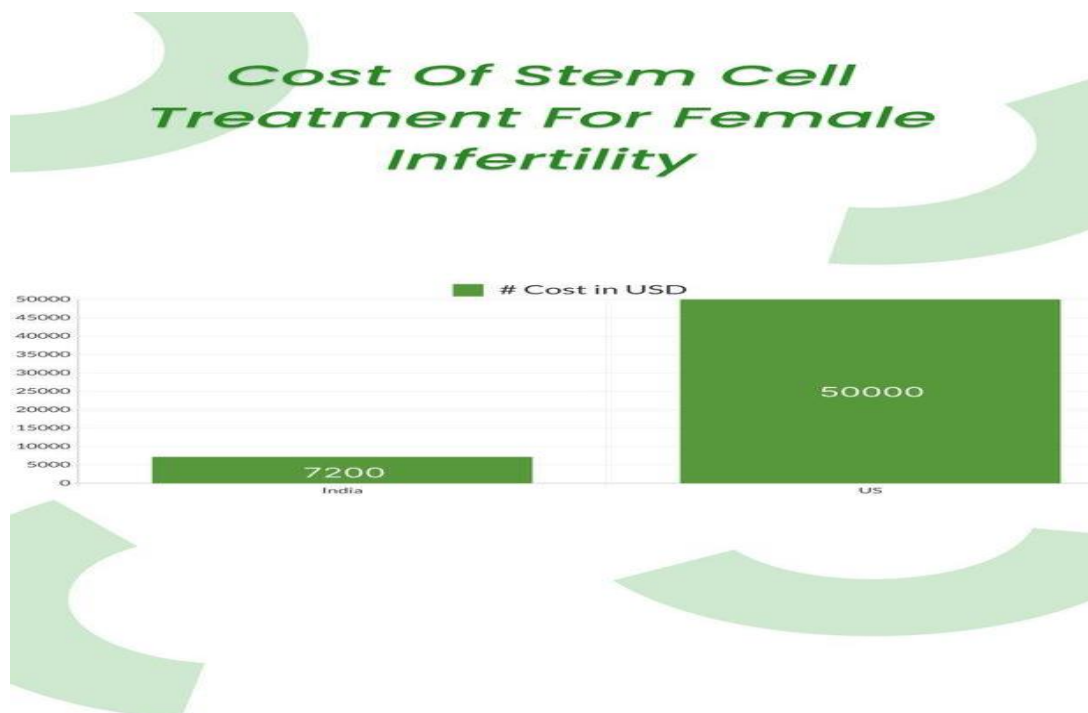
Relatively cost-effective

Graft-versus-host disease if donor cells are used

### Cost of Stem Cell Treatment for Female Infertility

***“What is the cost of the treatment?” you surely might have this question running in your mind, right?***

***Indeed, this is the most crucial and obvious question that everyone has!***



Well, the [cost of stem cell treatment](#) for female infertility depends on several factors like the severity of the issues causing infertility, the number of cycles required, and the type of stem cells used.

The facility and city you choose for your treatment also weigh into the total cost.

In India, each stem cell cycle costs 2000 USD, with the total expense ranging from **6300 to 7200 USD (4.72 to 5.40 lakhs INR)**.

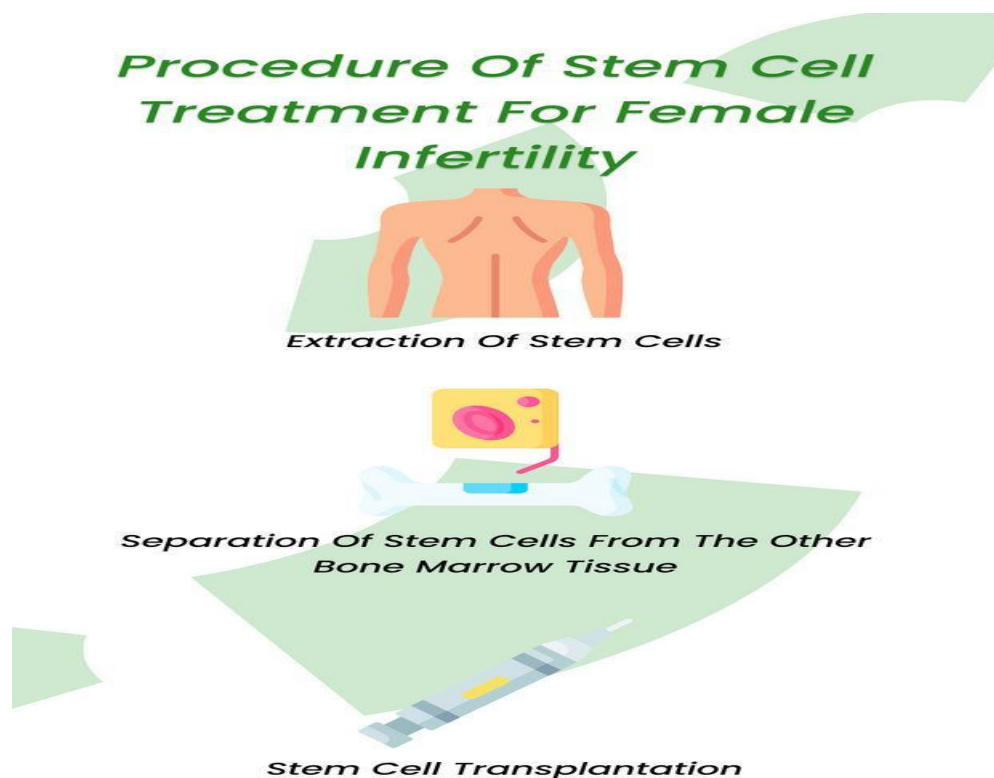
In comparison, the same treatment can cost up to **50,000 USD** in the US.

## Procedure

*Are you wondering just what the procedure for this treatment is?*

*We have brought all the details for you.*

The procedure for stem cell treatment is quite simple, and can be divided into three steps:



## Procedure

## Description

### Step 1: Extraction of Stem Cells

- For most trials, the stem cells are harvested from the bone marrow of the iliac crest (the hip bone) after giving the patient local anesthesia.
- This step takes about one to two hours.

### Step 2: Separation of stem cells from the other bone marrow tissue

- This is done by a process called the density gradient technique' in a stem cell laboratory.
- A concentrated solution of stem cells is ready in three to four hours.

### Step 3: Stem Cell Transplant

- The best approach is to insert these stem cells directly into the region requiring treatment.
- For female infertility treatment, the stem cells are injected laparoscopically into the ovary.
- This step is completed in one to two hours and is done under local anesthesia to keep the patient comfortable.

While the whole procedure can be done in one day, it is preferable to split them over two or three days to keep the patient comfortable. After keeping the patient under observation for a few hours to one day, they are given a discharge.

### **What to Expect After Stem Cell Treatment for Female Infertility?**

Immediately after undergoing a cycle of stem cell treatment, the patient might feel some nausea or dizziness. This only lasts for a few hours and resolves itself.

You will be advised to avoid strenuous physical activity for the next week, although you can return to your daily routine after one or two days.

#### ***What about side effects, you ask?***

You will be happy to know that no long-term side effects have been reported by any clinical trial so far. Stem cell treatment is completely safe.

#### ***By when will you start seeing results?***

***This is a tricky question with no single answer.***



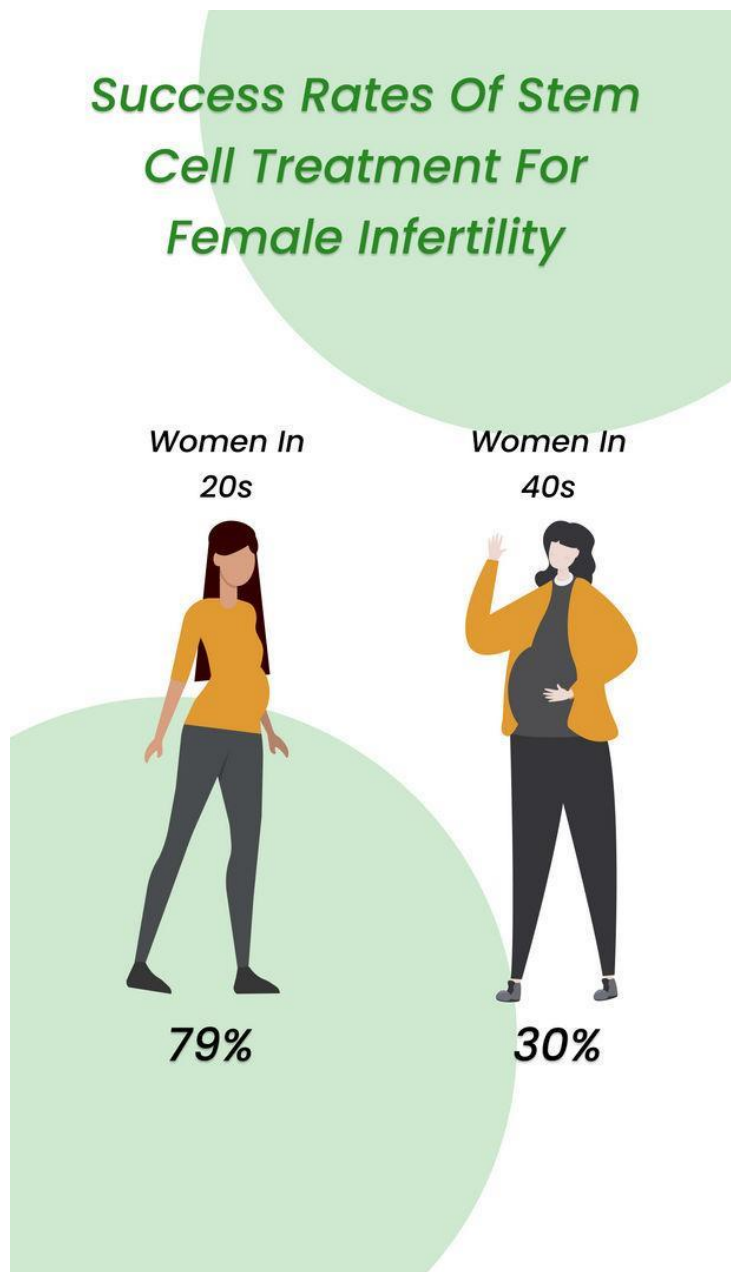
It varies from person to person and depends on several factors like how advanced the infertility is, and the age of the patient, among other things.

Several American studies have reported that after the injection of stem cells, the size of the ovary increases, and the level of estrogen doubles for up to one year after the procedure.

You will start seeing initial improvements like regularization of the menstrual cycle and ovulation within three to four weeks after stem cell treatments.

The results last for up to twelve months after the treatment.

### Success Rates



Success rates heavily depend on the age of the patient and the extent of their infertility. In women around the age of twenty-five, the success rate is as high as **79%**.

However, for women in their forties, the stem cell pregnancy rate drops to around **30%**.

### **Stem Cell Therapy vs IVF**

According to the US National Library of Medicine, In Vitro Fertilization is the fertilization of an egg by the [sperm](#) outside the body. It is currently one of the most successful tools in the ART arsenal, and is the treatment of choice in a majority of female infertility cases.

***Are you confused whether you should go for [IVF](#) treatment or stem cell therapy?***

***Don't worry!***

***We have made a comparison table to help you better understand the difference between these two treatments.***

<b>IVF</b>	<b>Stem Cell Therapy</b>
It involves the extraction of eggs from the ovary.	It involves the formation of more eggs in the human body.
It is an artificial method of conception done outside the body.	The treatment helps in achieving natural conception.
Each cycle of IVF costs 2 to 2.5 lakhs INR in India.	Each cycle of stem cell therapy costs 1 to 1.5 lakhs INR in India.

Another emerging treatment is stem cell IVF. It combines both these treatments, giving significantly more effective results.

The stem cells aid in improving the health of the uterus, reducing the chances of a miscarriage. However, this treatment is still in a very early stage and will require several more trials before it can become a part of mainstream medicine.

## **Where Can I Get Stem Cell Treatment for Female Infertility?**

## *Where Can I Get Stem Cell Treatment For Female Infertility?*



 *USA*

 *India*

 *UK*

 *Thailand*

At present, clinical trials are ongoing in several countries like USA, UK, India, and Thailand. However, while deciding on the facility where you will receive treatment, it is necessary to verify their credentials and thoroughly research their protocols.

***Don't you think stem cell treatment is the future of female infertility treatment?***

***So, what are you thinking?***

It is time to accept this "Good News" to welcome the biggest good news in your life-pregnancy!

Source: <https://www.clinicspots.com/>