

# 10 common myths about in vitro fertilization, busted!

By Laxmi Iyer - July 31, 2017

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IVF or *in vitro fertilization* involves fertilizing the egg with the sperm in the laboratory, then reintroducing the early embryo to the uterus. In 1978, a breakthrough occurred for infertile couples, when biologist Bob Edwards and gynecologist Patrick Steptoe assisted in the birth of the first "test tube baby" Louise Brown, who was born through the assistance of *in vitro* fertilization (IVF). Since then, this technique has helped **more than 5 million babies** to be born.

**World Embryologists Day** (25<sup>th</sup> July) is celebrated every year to commemorate the birth of the world's first IVF child, Louise Brown. The day is in honor of all the medical specialists in the field of reproductive medicine.



Male infertility is also on the rise thanks to the influence of smoking and drinking. It is difficult to state the root causes of infertility. However, they could be anything from simple and visible cysts, fibroid, or hormonal imbalance to a complex genetic disorder and occupational hazards like exposure to chemical substances or radioactive elements. Add to these, the lifestyle changes such as lack of physical activity and change in eating patterns which further lead to stress and obesity, the problem is only increasing.

## What are some of the assistive reproductive techniques available for couples today?

Advancement in medical technology has opened many options in the form of assisted reproductive techniques for older parents or those with infertility issues to have babies. Some of them are as follows.

**Intrauterine insemination (IUI)** In this process, sperm is directly inserted into the uterus (womb) at the time of ovulation.

**In vitro fertilization (IVF)** This process involves gathering eggs from the ovaries which are then combined with the partner's sperm in a laboratory dish. The embryos are then transplanted into the uterus.

**Intracytoplasmic sperm injection (ICSI)** In this method, a single sperm is injected straight into a single egg in the laboratory and the embryo is later transplanted into the uterus.

**Donated sperm** For men with a low sperm count, or with no sperm production, a donor sperm can be used for donor insemination or IVF.

**Donated eggs or embryos** For women unable to conceive with their own eggs, an egg donated by another woman can be combined with the partner's sperm. A donated embryo can be used in the same way.

**Assisted laser hatching** This is a technology which helps embryos to attach to the womb of the woman. Pregnancy cannot occur unless the human embryo hatches.

**Surrogacy** In this process, another woman carries the baby, or a baby from a donor embryo, to term, later entrusting it with the parents.

## Is there any stigma still associated with the use of these techniques? What do you have to say about it?

There is much debate and discussion about assisted reproductive techniques albeit not among those who have chosen to take this route for a baby but among others. There is an apprehension surrounding these techniques which make countless couples deny or hide the fact that they have conceived through one of these techniques.

Indians do not have a very positive approach towards someone who faces infertility issues to the extent that such couples are also considered incapable and a failure. We still have a long way to go in terms of removing the social stigma associated with them. Men feel incomplete if they are unable to father a baby and women are ostracized by the society. The need of the hour is to create more awareness about the fact that babies born through these techniques are as normal and healthy as those born without them.

## What are some of the myths and misconceptions surrounding IVF and other assistive reproductive techniques?

There are many myths and misconceptions surrounding IVF and other assisted reproductive techniques. However, the fact is that many of them are only due to lack of enough knowledge about these techniques. Clearing these misconceptions can help remove the social stigma associated with these procedures as well. Here are some such myths.

### Myth 1 IVF can resolve all infertility issues

There are many assisted reproductive procedures available today and IVF is just one of them. Some other procedures include ovulation induction (OI) with medications, Intra Uterine Insemination (IUI), etc. which can help childless couples conceive.

### Myth 2 It is only for the rich

IVF is a little expensive but cheaper than many other surgeries. Its cost has, however, not risen in the last many years.

### Myth 3 It is only for younger couples

Although age is a factor that determines fertility, this procedure can be as effective in ladies in the post-menopausal group as in younger ones. In the older age group, donor eggs from younger females are used. However, it should be kept in mind that the pregnancy rates in older women are lower as compared to younger women.

### Myth 4 IVF has a 100% success rate

The success rate of IVF is about 40% in couples below the age of 35. Also, the success rate of IVF depends on factors such as age, cause of infertility, and biological and hormonal conditions.

### Myth 5 IVF babies are born with birth defects and malformations

The absolute risk of delivering an IVF baby with malformations is low. The risk of an anomalous fetus in spontaneous or IVF babies is the same as in general population.

### Myth 6 IVF is not safe

It is a safe procedure with only about 2% of patients standing the risk of becoming unwell from ovarian hyperstimulation syndrome.

### Myth 7 IVF leads to multiple pregnancies

Although there are cases of multiple pregnancies with this procedure, reducing the number of embryos transferred, particularly in younger women, can minimize this risk.

### Myth 8 IVF requires a person to be admitted in the hospital

The hospital admission is only for few hours during the egg-collection procedure. The person is not required to be admitted for many days.

### Myth 9 Donating eggs will deplete them

During menarche, a girl has over 400,000 eggs. Of these, only 400 are required in an entire lifetime. Every month about 20 of these are mobilized and only one or two grow to the point of being released during ovulation. About 18 to 19 of the remaining eggs die. IVF helps in sustaining the growth of these remaining eggs. Therefore, there is no chance of eggs getting finished through donation for IVF.

### Myth 10 IVF pregnancies result in cesarean births

IVF pregnancies are just like naturally conceived ones and not an indication for cesarean section. Couples who have tried to conceive for many years or those with higher chances of a multiple pregnancy can opt for elective cesarean delivery. A very normal vaginal delivery is possible following IVF.

## It is World Embryologists Day on July 25th. How far have we come as a society, in aiding couples yearning to have their own children?

In India, when people have a successful bypass or a knee replacement, they proudly discuss it in social gatherings. However, there is a problem even with uttering the word IVF. According to statistics, only 10% to 20% of IVF patients are completely open with their families about wanting to conceive a baby through assisted reproductive techniques. There is still a misconception that babies born through these procedures are unnatural and the society is not very forthcoming towards such couples.

It is important to encourage couples to come out and talk about their fears and apprehensions, which will help them overcome this mental block. This can be done by introducing the concept of support groups and peer groups as in the West where people who have already had children through these techniques discuss and talk to would-be parents about their doubts and anxieties. Bloom IVF will be working with partners to build such networks/groups where couples can access such information and peer opinions. These can help them make empowered choices about safe, effective avenues to explore vis-à-vis the critical decision of expanding their families.