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## PROS AND CONS OF TEST TUBE BABY FERTILIZATION

**\*Dr. Muhammad Yaseen**

Assistant Professor Islamic Studies,  
National Textile University Faisalabad, Pakistan  
Orcid ID: <https://orcid.org/00000002-8909-4079>

**\*Dr. Yasmin Nazir**

Assistant professor  
Department of Islamic studies The Govt Sadiq college  
women University Bahawalpur

**\*Dr. Asia Shabbir (Corresponding Author)**

Associate Professor  
Lahore College for Women University Lahore  
[Asia.Shabbir@lcwu.edu.pk](mailto:Asia.Shabbir@lcwu.edu.pk)

**\*Dr. Salma Mahmood.**

Assistant Professor.  
[dr.salmamahmood@gmail.com](mailto:dr.salmamahmood@gmail.com)

### Abstract:

Sterility is one of the 3rd world's most intense socioeconomic and cultural problems. In fact, infertile women face many problems within male-dominated cultures, including the inclination to re-marry husbands and rising divorce rates, etc. Women's interests are in this context at stake and felt embarrassed about their still precarious future of adding a blot or question mark. A variety of social and psychological challenges lie before them. Family circles are in most cases broken and women are eventually forced to commit suicide. Over the course of time, numerous techniques for solving this problem were invented. The most common method among these is test tube baby fertilization. It has a number of pros along with cons, which required detailed discussion before benefiting it. This article revolves around all these aspects.

**Keywords:** Artificial Insemination, IVF, Test Tube Baby Fertilization.

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### Introduction:

Since the birth of Louise Brown <sup>(1)</sup> the first infant in the world in 1978 <sup>(2)</sup>, scientists had discovered various approaches that were harmless not only to babies but also to mothers, through the "Artificial methods of childbirth" method. They were able to make a variety of approaches to encourage infertile

couples to conceive their children after their hardest and relentless attempts. The widespread process is Test Tube Fertilization.

## **2. Meaning:**

Before explaining the test tube baby fertilization and its procedure, its basic concept should be cleared. A child is called Test Tube Baby.

a: “A baby conceived by artificial insemination.”

b: “A baby that has developed from an ovum fertilized outside the mother’s body”<sup>(3)</sup>

it is also called IVF “In Vitro Fertilization”. “In Vitro” is a Latin word that means “Glass” .in other words “Isolated from the living organism and artificially maintain as in a test tube.”<sup>(4)</sup> n simple terms, the whole method of sperm and egg fertilization in glass is referred to as “In-vitro fertilization”.

## **3. Who can get benefits with I V F?**

Who can benefit from this approach now the question arises? The doctors recommend that this treatment ought accordingly to be used for couples who have struggled to conceive of a child at least one year after they have been attempting to have a child, and they also face one or two of the following problems:

A: Blockage of the Fallopian tube with skewed pelvic structure or pelvic adhesions. Women who have a tubal ligation and are treated as tubal reversal and men who had a vasectomy reversal.

b: Extreme infertility of the male component, i.e. reduced numbers of sperm, low motility, or sperm abnormality.

c: 2-6 cycles of intrauterine ovarian stimulation have failed.

d: Age for women, i.e., 38 years or more.

e: Decreased reserve of ovaries, indicating poorer quality and egg quantity.

f: Acute endometriosis.<sup>(5)</sup>

## **4. Prerequisites of IVF:**

The basic needs of the IVF process are.

a: Sperms

b: Eggs and

c: Uterus

## **5. Procedure:**

In the IVF procedure, the doctor first manages the eggs. Then incubated for 4-24 hours in a cultivated medium, which was specially prepared to ensure that 100 000-1000 000,000 specially prepared sperm swam and then put into the incubated eggs. In the next 24 hours.2–3 days, fertilization happens following a transfer of the embryo<sup>(6)</sup>

## **6. Pros:**

No doubt, Modern technologies, and scientific inventions always play an important role in providing comfort to a human beings, if they are used wisely. Test tube fertilization certainly also has many advantages for humankind. Some can be talked about as follows.

### **6.1. Safeguarding the future of women:**

This technology has not only brought on the aspirations of millions of unfortunate people by giving them their own children but also provided young women with the option of preserving

their potential chance to have children <sup>(7)</sup>. This technology has not only brought on the aspirations of millions of unfavorable people by giving them their own children but has provided young women with the option of preserving their potential opportunity to have children <sup>(8)</sup>. able to save themselves from the following consequences.

- a. Ignoring of husbands.
- b. Tendency of second marriage.
- c. In the case of a co-wife, she is neglected by her husband and 2<sup>nd</sup> wife.
- d. Revengeful attitude towards husband and co-wife.

### **6.2. Medication of sterile couples:**

These are the days when infertile parents have been dreaming about their own children for their whole lives. They had to confront society's satire. Physicians couldn't recover their life joys. In this case, IVF has allowed them to carry their own child to adulthood, even to their Fallopian pipes, or to their husbands being seriously disabled or missing. Dr. Muzmal Saddiqi, former President of the Islamic Society of North America; "In Vitro, Fertilization is a new method of biomedical treatments, which can help couples who otherwise cannot have a kid by a normal husband and a wife." (21) So "IVF" is a big therapy of babies, no matter the medical condition they have. <sup>(9)</sup> Dr. Muzmal Saddiqi, former president of the Islamic Society of North America states; "In Vitro Fertilization is a new biomedical method to help couples who are otherwise not able to have a child through normal husband/wife's relationship."<sup>(10)</sup> So, when other types of assisted reproductive technology have failed, "IVF" is an effective therapy of infertility.

### **6.3. Get rid of surgery:**

In the early days through surgery, infertile couples were facilitated. However, it was a very painful and dangerous procedure. To escape this form, many people have tried their utmost. Secondly, many conceptions have not produced good outcomes either. (11) The rates of pregnancy of IVF begin to rise over time, until, through contrast, the surgery becomes much less effective. (12) "The biggest advantage of IVF is that women can avoid the biggest operation included in the prevent of a reversal of prevention," (13) the Advanced Fertility Center of Chicago says.

### **6.4. Supportive to nature:**

Everyone naturally wants to carry his name through reproduction. Test tube fertilization technique is playing a very important role in providing the chance for infertile couples to get their children in a way that looks more naturally as the baby is natural in the uterus and got birth in a normal way. Dr. Aniuddha Malpani MD and Dr. Anjali Malpani wrote, "IVF is a treatment option for couples with various types of infertility since it allows the doctor to perform in the laboratory what is not happening in the bedroom. Initially, IVF was only used when the women had blocked, damaged, or absent fallopian tubes. Today IVF is used to circumvent infertility, caused by practically any problem, including endometriosis, immunological problems, unexplained infertility, and male factor infertility. It is a final common pathway since it allows the doctor to bypass nature's hurdles and overcome its efficiency so that we can give nature a helping hand". <sup>(14)</sup> Angus McLaren said, "High-tech artificial reproduction was a musicalized process that served to demonstrate in the most dramatic fashion, doctors' power of giving nature a helping hand". <sup>(15)</sup>

### **6.5. Monitoring Fatal disease:**

In the past, the diseases causing human infertility have been deemed incurable, the scientists worked on curing these diseases in the dawn of the 19th century, and eventually, with IVF, they became capable of assisting women with tube endometriosis irreparably damaged; immunological complications, mysterious infertility, and male factor infertility. In the case of issues like oligospermia, a large cervical mucus, and any mysterious infertility, this operation may be the last resort care. <sup>(16)</sup> The major issue that these new procedure cures are vaginal adhesions, chronic ovulation, and endometriosis <sup>(17)</sup>. This technique also benefits women who are sperm-hostile in the cervical mucosa and have unexplained causes of infertility. <sup>(18)</sup>

### **6.6. Improvement of Biological knowledge:**

In the past century, IVF has proven an important technological accomplishment for humanity. Not only has it opened up new approaches to handling contagious partners, but it also strengthens our understanding of the underlying biodiversity of human reproduction. <sup>(19)</sup>

### **6.7. Acquisition of stem cells:**

In the treatment of infertility, stem cells play a very significant role. However, it was not possible to produce stem cells without damaging the body. The scientists were able to gain them via IVF after the ongoing struggle and experiments. "IVF is the only way of getting pluripotential embryonic stem cells," says Current Science Journal; <sup>(20)</sup>

### **6.8. Mental calmness:**

Mental calmness:

Infertility is an incredibly tragic occurrence for peace of mind. The infertile pairs have always been involved. This worriedness was expressed in the case of women. They endure the contempt, snub, and scorn of laws. They lived in anguish which made them psychological patients. The woman could not pay attention to her family affairs. Her husband was not really taken into consideration. As this case crossed the lines, her husband split up and the whole family broke down. In our culture, this horrific situation is always observed. M.C Inhorn stated; "Childless couples are often under tremendous social pressure to conceive" <sup>(21)</sup> Again he says; "In the Muslim world, infertile women often live in fear that their Marriage will collapse... wife's barrenness to be a major ground for divorce." <sup>(22)</sup>

This tragical end can be managed with the aid of a test tube baby fertilization. Mr. Michael stated, "Life can be difficult for a couple who cannot have children. Muslims recognize that if a couple has problems conceiving a baby, they may need medical help. There is no objection to IVF or AIH". <sup>(23)</sup>

Secondly, these women are compelled by their own simplicity to visit so-called spiritual guides and even to rape them with abuse. The couples will preserve their sanctity and have their own children and get peace of mind by embracing this advanced technology. Osama Muhammad Ali said, "The couples no longer have a sense of sterility, and they become equal to other couples, feeling the joy of parenthood through this scientific breakthrough that God, the most sublime, has made possible; and it enhances the psychological and social happiness of the married couple. It gives them reassurance about the continuity of their marriage and intimacy." <sup>(24)</sup>

### **6.9. Safety from the adaptation:**

In the past, infertile couples adopted a baby for their comfort. But as soon as they are grown up, they left their adopted parents and left them in constant grief. IVF help such couples by providing them with test tube baby: their own children. According to P.S Verma and V.K Agarwal test tube fertilization bring the following benefits.

- a. It is a blessing for infertile women by enabling them to have their own children.
- b. In case of damaged ovaries, she can conceive a child by the donor's ovum.
- c. It can be helpful to a man who has a low sperm count or a woman whose uterus does not allow the spermatozoa to move up.
- d. Research in Vitro Fertilization is producing vital information in other areas, including birth control techniques and possibly the mechanisms involved in the growth of cancer. <sup>(25)</sup>

### **7. Cons:**

No doubt, when nature is ignored or interfered, and unnatural methods are used a lot of problems have to face. It badly effect the humanity. Test tube baby fertilization has number of benefits, but it is not free from side effects. Few of them are.

#### **7.1. Complications.**

As we know in IVF, sperm and eggs are fertilized in a funnel and transferred into the womb. More than two zygotes are transferred to obtain efficacy, which can lead to significant complications of the risk of multiple births which relate to the increased risk of loss of pregnancy, obstetrics, premature and neonatal morbidity, and long-term harm potentials. <sup>(26)</sup> Ms. Bennett says, "Around a third of couples have twins or triplets because doctors implant several embryos into the woman to maximize her chance of success and unexpected arrival of triplets can be a nightmare." <sup>(27)</sup>

A woman has to face psychological issues during the process on one side while on the side when she learns about triplets, her misery intensified, and she s forced for an abortion. This resulted in the wastage of her money and the pain of the process. Jane Denton of the Multiple Birth Foundation says, "Triplets may also be more likely to have an illness, such as cerebral palsy". <sup>(28)</sup> One cannot feel traumatic of a woman who aborts a fetus. <sup>(29)</sup> Catherine Bennett said, "It is very upsetting after going to such extremes to get pregnant in the first place." Dr. Aniruddha Malpani MD, and Dr. Anjali Malpani MD wrote discussed the complications of the process. "IVF is a complex procedure involving considerable personal and financial commitment, so other treatments are usually recommended first." <sup>(30)</sup>

#### **7.2. Hyper stimulation syndrome:**

Test Tube is not only difficult, but it creates a lot of complications not only for mothers but also for the infant newborn. Hyper-stimulation syndrome can be encountered by women. <sup>(31)</sup> It is a severe medical problem that can be caused by over-stimulation of the overstimulation initial process, ovaries suddenly expand with fluid build-ups in the belly. Pelvic discomfort, nausea, fatigue, weight gain, and decreased development of urine are caused. Fluid can build up in the lungs in more extreme situations, causing trouble breathing. In the abdomen region, too as an ovary breaks up, blood will build up. Serious fluid imbalances can otherwise occur, causing complications with blood clotting, including inflammations of the veins, stroke, and lung clots that may be life-threatening and death related. <sup>(32)</sup>

Ovarian cancer may be encountered by women because of over-stimulation of the ovaries by IVF. Liz Tiberis author of 'No Time To Die' thinks, "Her ovarian cancer was a result of nine attempts at IVF."<sup>(33)</sup>

In regard to newborn infants, there are questions about the risk of inducing genetic damage to an unborn infant by a recent IVF variation, the intracytoplasmic sperm injection.<sup>(34)</sup> In addition, these test tube babies face multiple growth defects. Even their society cannot adapt to them. Their class fellows, mothers, and even parents call them according to their anomalies. It marks their development. They, therefore, suffer from dynamic inferiority. This makes their future bleak and they often become psychiatric patients and stress not only their parents but also their culture.

More complications are also apparent by this procedure, e.g., after an ultrasound or laparoscopic retrieval it may cause mild pain, bleeding, or infection. An organ like the bladder or bowel, which has been weakened during surgery, is seldom located in the ovaries. It is likely that an ectopic pregnancy can occur during the embryonic transfer into the tube and implant there. Oxford Journals have reported that "Side effects of IVF are as below 66% reported OHSS. 33% reported severe intra-abdominal bleeding following eggs retrieval, 11% reported heavy vaginal bleeding following egg retrieval."<sup>(35)</sup>

### **7.3. Intermingling of Gametes:**

Naturally, a person visited only a well-known doctor. But due to the great rush, some doctors show carelessness. For example, in the case of the test tube baby method, the doctor may involve 3<sup>rd</sup> party gametes which surely change the parental ship. This negligence would assuredly damage the future of the newborn. Thus the pleasures of the parents will transfer to troubles. Such an example is observed in California where the embryo of another woman was transferred to a woman and the mistake was indicated after the delivery of the son.<sup>(36)</sup>

### **7.4. Population expansion:**

The population is rising every day Over this, land supplies are very quickly declining, and people cannot get their basic requirements. Food shortages are the order of the day since farms are now converting to housing schemes. In this crucial scenario, artificial insemination is increasing the population rapidly. That's what Mrs. Brown says, "In Vitro Fertilization automatically puts a selective mentality into raising a family, but adoption focuses on an already existing child who needs a loving home."<sup>(37)</sup>

### **7.5. Child industry:**

If the parents cannot conceive of a boy, their prayers become stringent. They meet with many physicians, including the use of several untraditional approaches that old nannies and daddies prescribe. When they can, fortunately, conceive a child after a long period of time, they are not only content but also the child becomes "An apple of the eye" to the family. This child's value is compounded. when the parents are not in a position to have any children they visited the doctor immediately, they get the child of their own free will, i.e., the son or the daughter, after the artificial insemination. This diminished the dignity of a child and makes it like a product. President Judie Brown of the American Life League said, "When couples chose In Vitro Fertilization, they are turning children into commodities."<sup>(38)</sup>

### **7.6. Birth of sick and abnormal babies:**

It is fact that test tube baby fertilization provides unlimited joy to infertile couples on one side but on the other side in case of some mistake or negligence of doctors a sick or abnormal baby is born. It becomes difficult for the parents to accept it even though they had spent a lot of money. If, they are not ready to accept this child what would be the of that child? If they accept him or her then the life of the baby would be very difficult in society. The people who are not in favor of test tube baby fertilization argued that it is the source of creating deformed babies. DNA co-discoverer James Watson also expressed his apprehension to IVF pioneer Robert Edward in the following words: “You can only go ahead with your work if you accept the necessity of infanticide. There are going to be a lot of mistakes. What are we going? to do with the mistakes”? <sup>(39)</sup>

### **7.7. Destruction of social hierarchy:**

Test tube baby fertilization is a mechanism that is abnormal. Such children are few in all societies, so they cannot completely adapt to their societies. Other children of their generation will stop playing with them in a kid hood because when they are grown up, they can't be married. People won't like to marry their daughters to such people. consequently, they spend their whole lives under pressure. In the end, this kills the whole social fiber or system.

### **7.8. Quite expensive:**

Quite expensive (scope limited):

There's just a very small scope of test tube baby system because it's very expensive. In some private clinics, this costs about £25,000 <sup>(40)</sup>, while for the US couples \$10,000 can be charged for the ICSI cycle <sup>(41)</sup> and \$22,400 per cycle is in some instances taken <sup>(42)</sup>

It is seen that only some extremely affluent and well-to-do couples can afford it. In my opinion, those families do not bother to have their children. Poor families are, however, under tremendous pressure not to have a child. These women appear to be under tremendous burden as they are unable to afford this technique and remain in the same anguish situations.

### **7.9. Irregular brain abnormality:**

Infants born via IVF may be abnormal as it is not a natural process. Every test tube baby may display a sign of abnormality. Dr. Lichensteil described the behavior of six weeks, Louise Brown the first ever test-tube baby of the world, “Problems concerning the baby’s mental development have arisen. Certain things have accords which were totally unforeseen.” <sup>(43)</sup> The Daily Mail outlines multiple stories about Louise Brown's abnormality. It wrote “Baby Louise looked at a teddy bear on a shelf near her crib. The doll slid off, onto the floor.”<sup>(44)</sup> “The same day, the mother carried a stack of clean diapers into the nursery. She was holding them firmly at the top and bottom of the stack. But suddenly they slid out of her hands. Mrs. Brown said she felt an unseen force tug the diapers out of her hand. Then she noticed baby Louise was staring oddly in her direction.” <sup>(45)</sup> Dr. Lichenstein also said, “Physically, the baby is healthy and normal. The problem involves what appears to be a highly irregular brain abnormality.” <sup>(46)</sup>

### **7.10. Discrimination among children:**

Couples who are fertile by PGD, can choose the healthiest embryos which produced high IQ level children. In the future, they will be excelled in all fields of their lives from education to extra and co-curricular activities. These children will be preferred by the parents and teachers and other children

will be neglected. Anne Machalinski, Aili MC Connon, and Christie wrote in *Science of Sex*, “Bioethicists and other critics fear that those with the means and ways will use PGD, and any possible genetic manipulation, to create children with high IQs or red hair, or amazing gymnastic talent.”<sup>(47)</sup> Nigel Cameron, a Bioethics, Professor at Trinity International University in Deerfield, Ill said, “Any kind of selectivity in the reproductive process cannot avoid eugenicism.”<sup>(48)</sup>

#### **7.11. Mercantile system:**

The goal of this initiative was to support infertile couples to release them from their misery when Assisted Reproductive Technology was invented. But as time went on, doctors saw that it was a very profitable venture, and others began to advertise their company. It is true that where every invention forms part of commercialism developed. Many infertility centers started a quantitative policy than a qualitative one. As a result, the real goal of giving relief to infertile couples was ignored and commercialism was established. George Annas, Professor of Health Law at the School of Public Health at Boston University, expressed, “Commercial interests may push PGD in a dangerous direction.”<sup>(49)</sup>

#### **7.12. Depression and anxiety:**

During their lifetimes the infertile pairs experience depression and anxiety. Family members dejected them and caused some form of tension. The process of IVF also depressed them, they continuously think if they are able to get a child and in the case of deformation of a child what can they do. Such thinking adds to their hopelessness. According to Wikipedia., “It is possible that the experience of IVF can result in stress that leads to depression. The financial consequences alone of IVF can influence anxiety and become overwhelming. However, for many couples, the alternative of infertility itself causes extreme stress and depression.”<sup>(50)</sup> Sometimes the couples become psychological patients. Dr. I.N Hinduja Consultant Gynecologist and Obstetrician at KEM Hospital Mumbai wrote, “The major risk of ART besides the expenses, include ovarian hyper Stimulation, repeated hospitalization, multiple pregnancies, and Psychological Trauma.”<sup>(51)</sup>

#### **7.13: Confusion of the identity of a child:**

This technique may create confusion in the identity of a child in case of third-party involvement. In the case of surrogate motherhood, the question arises about the identity of the real mother of the child. Is she, who provides the egg, or the woman whose womb serves as a carrier for the child? In this way, his identification is shattered very badly. And this thing also affects the emotions of the child when the fact is revealed to him.

#### **7.14. Violation of dignity and honor:**

In the case of surrogacy, the dignity and honor of women come to an end. She becomes the article of business. The rich people exploit her at their will. She bears the child in her uterus for nine months, feeds that child with her blood, and bears the pain of delivery. After passing the painful stages she handed over the child to the couple who hired her services for childbirth. She also knows that she will never be able to see that child again. In this way, her pleasures and happiness are sacrificed for the sake of money. Such types of women are looked down upon in society even though they are a source of providing pleasures to those people who are naturally deprived of children it is expressed by Mufti Ahmad Kutty, “The procedure amounts to dehumanizing the process of human procreation by



reducing womb down to the level of a commodity that can be bought or rented for service. Ultimately, such a process, yet again, violates the dignity and honor that Allah Almighty has bestowed on man and woman. <sup>(52)</sup>

### **Permission of IVF.**

If it involves married couples only.

- (a) During marriage life.
- (b) Sufficient and meticulous care is taken to avoid lineage confusion. <sup>(53)</sup>

The prophet (PBUH) allowed taking treatment in case of disease. “Narrated by Usama bin Sharik that desert Arabs asked the prophet of Allah, should we make use of medical treatment? Prophet (PBUH) replied, O slaves of Allah! make use of medical treatment. For Allah has not made a disease in the world without a remedy for it, with the exception of one disease. They asked about that disease, he replied “old age.” <sup>(54)</sup>

He also said, “Abu Hurairah (R. Allah) Narrated that I heard Allah’s Messenger saying there is curing in black seed for all diseases except, “Sam” Ibne Shahab said that “al-Sam” is death and “Black seed” is called black cumin. <sup>(55)</sup>

These sayings proved that treatment of any disease is the Sunnah of the Holy Prophet PBUH) As we know that infertility is also a kind of disease. So, a person can get benefits from modern methods of treatment. But it is necessary to keep the laws and principles set by Islamic Shari’h. Hence test tube fertilization is a kind of treatment for providing children to childless couples, so this method can be beneficial. <sup>(56)</sup> Michael writes, “Muslims recognize if a couple has problems concerning a baby they may need medical help, there is no objection to IVF or AIH.” <sup>(57)</sup>

### **Conclusion:**

All the above discussion concludes although test tube baby fertilization is very helpful to infertile couples to fill them with pleasure by having their own child, it has a number of cons that cannot be neglected at the same time. If this process is utilized with the utmost care, the side effects can be minimized. In present days, the infertility rate is growing day by day, if this technique is adopted, many social evils can be overcome. As many women are forced to consult fake holy men to save their family life. They exploit them. One thing must be kept in mind that 3<sup>rd</sup> party involvement should be avoided in all circumstances. Only the wife’s eggs and husband’s sperm be used by authentic doctors.

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