

INFERTILITY

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Definition

- **Infertility is defined as the inability to conceive within 12 months**
- **Causes :**
 - Are age 35 or older and have been trying to conceive for six months or longer
 - Are over age 40
 - Have irregular or absent periods
 - Have very painful periods
 - Have known fertility problems
 - Have undergone treatment for cancer

Men should talk to a doctor if they have:

- A low sperm count or other problems with sperm
- A history of testicular, prostate or sexual problems
- Undergone treatment for cancer
- Small testicles or swelling in the scrotum
- Others in their family with infertility problems

Types

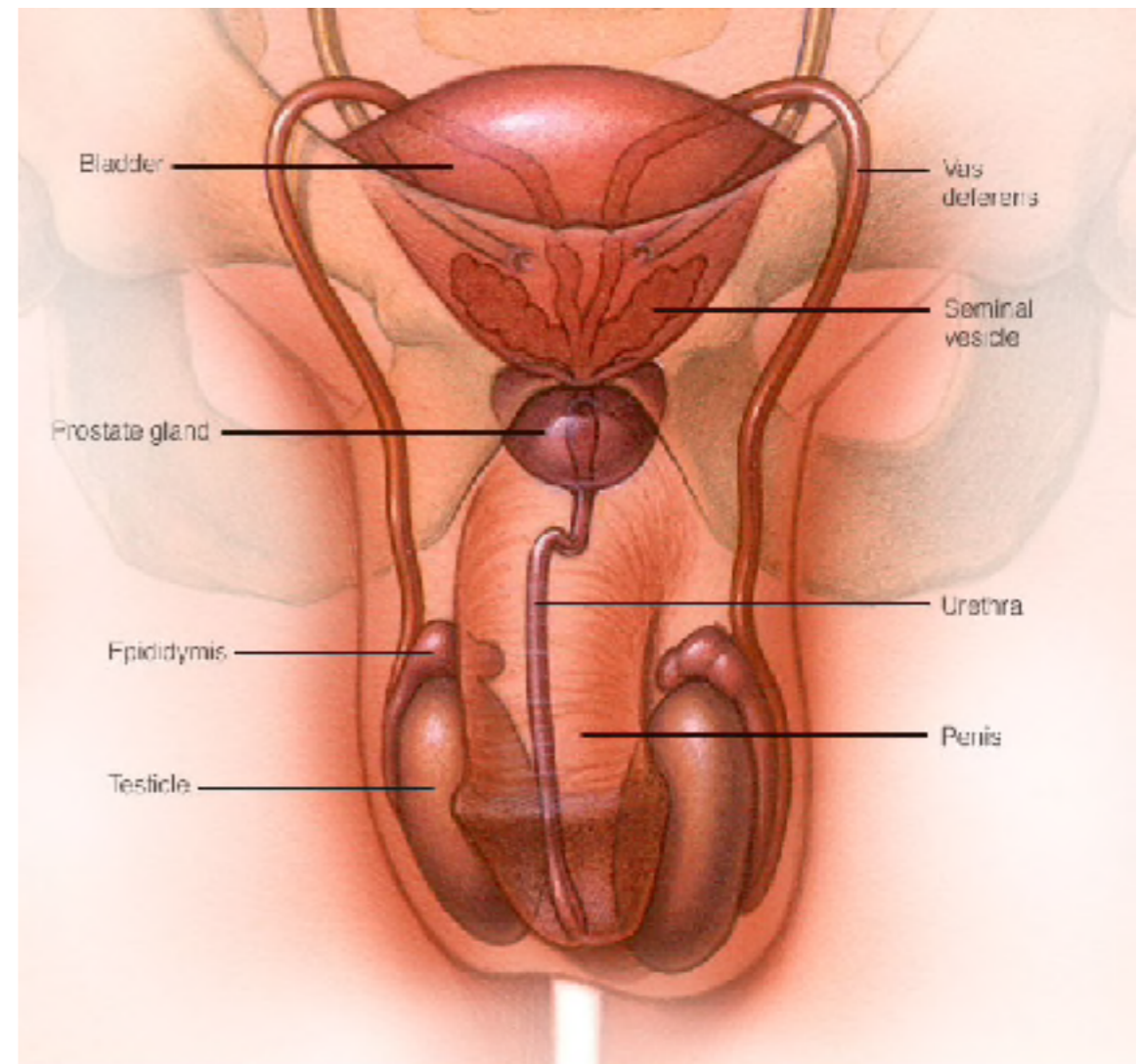
There are 2 types of infertility:

- **Primary infertility** refers to couples who have not become pregnant after at least 1 year having sex without using birth control methods.
- **Secondary infertility** refers to couples who have been able to get pregnant at least once, but now are unable.



CAUSES OF MALE INFERTILITY

- Abnormal sperm production or function
- Problems with the delivery of sperm
- Overexposure to certain environmental factors,
- Damage related to cancer and its treatment,

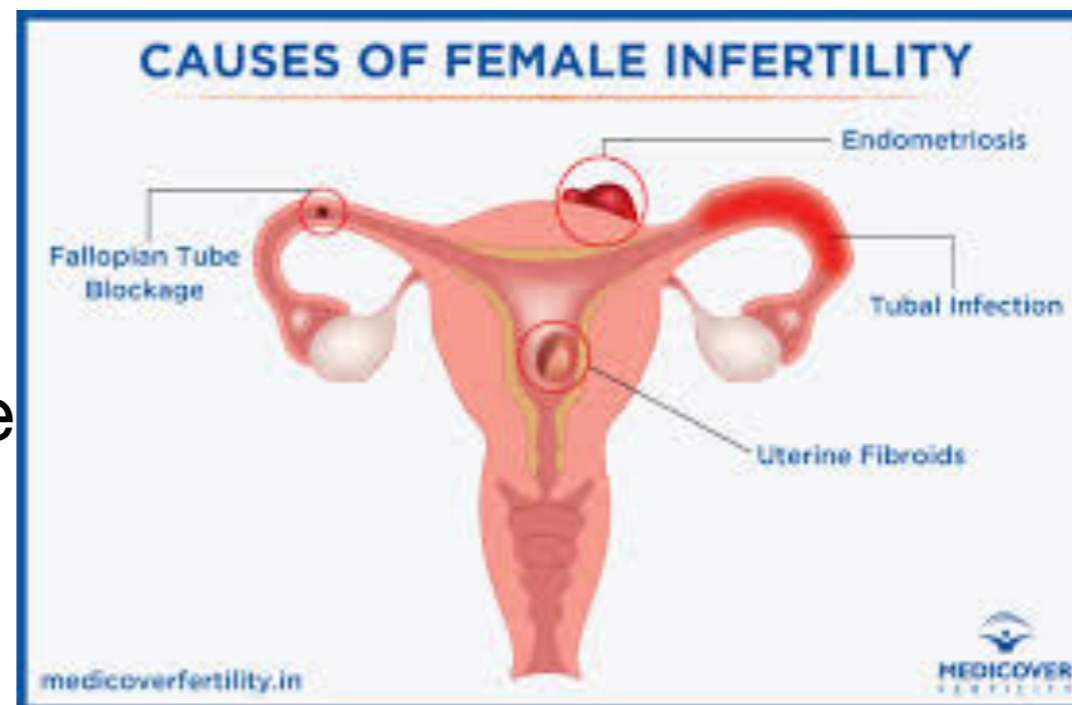


CAUSES OF FEMALE INFERTILITY

- Ovulation disorders,
- Uterine or cervical abnormalities,
- Fallopian tube damage or blockage,
- Endometriosis
- Primary ovarian insufficiency (early menopause),
- Pelvic adhesions
- Cancer and its treatment
- Endometrial polyps.

- Advancing maternal age

- Tubal occlusion



Tests for men

1. Semen analysis.
2. Examination of testes and penis
3. Hormone testing.
4. Genetic testing
5. Testicular biopsy.
6. Imaging.(USG)

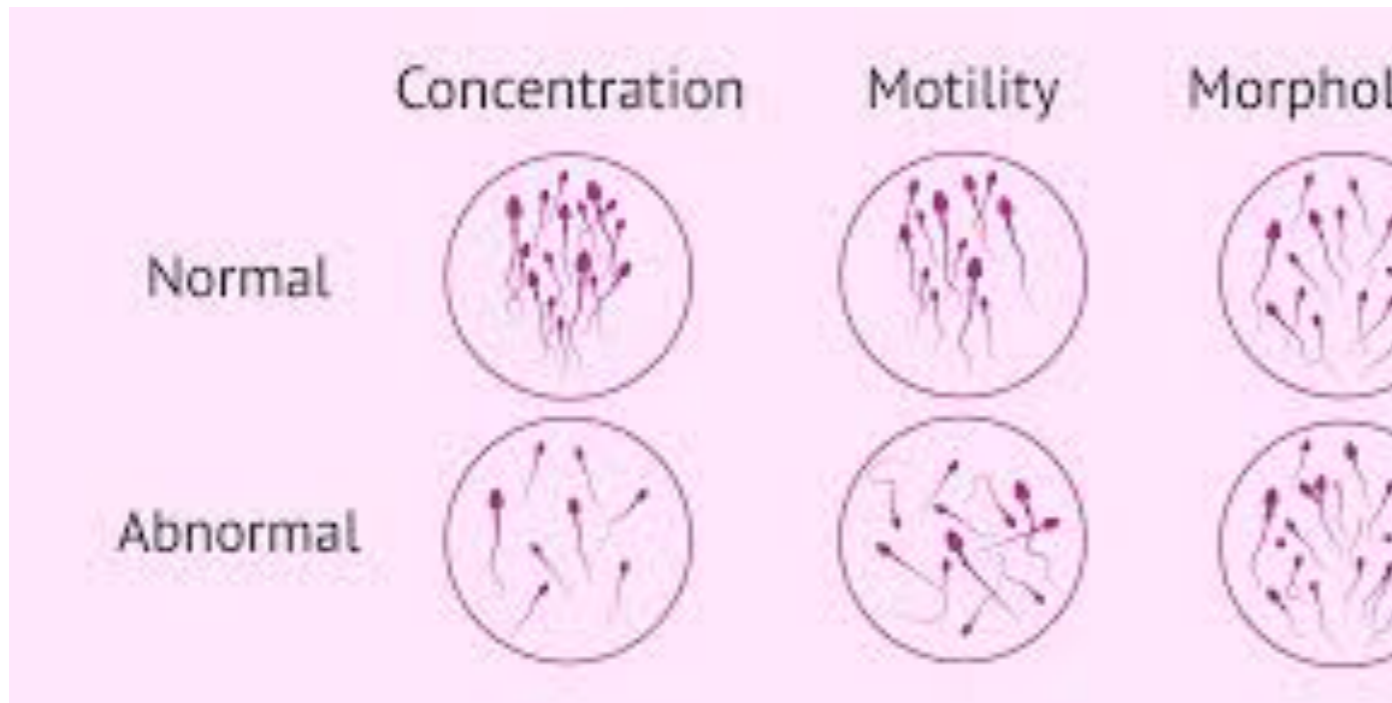
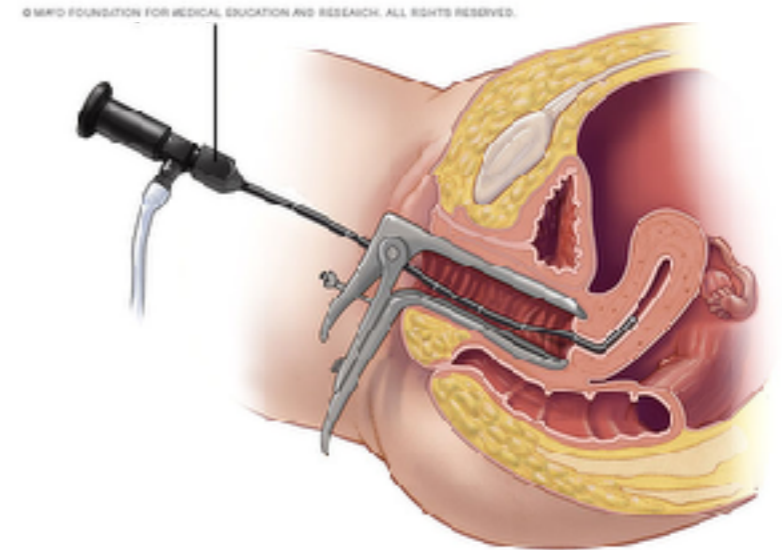
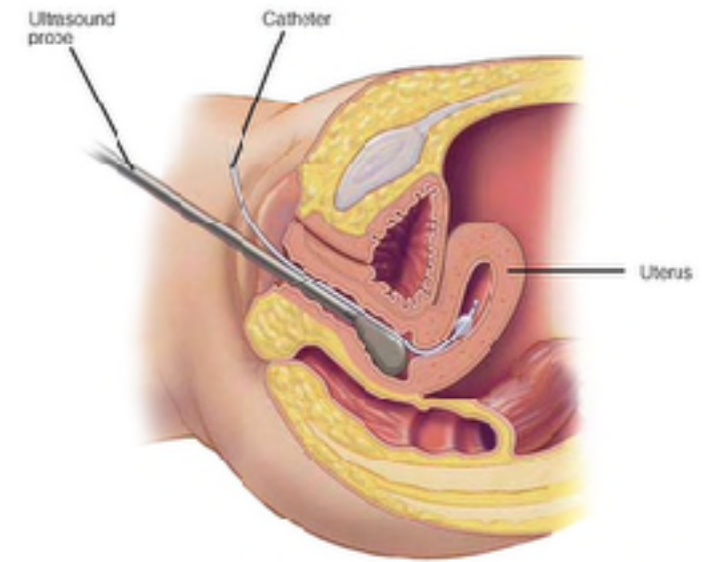


Table 12-1 Normal Semen Analysis Ranges

PROCEDURE	NORMAL RANGE
Liquefaction	Liquefied after 30 minutes
Color	White or grayish white
Viscosity	Viscous
Volume	2.0-5.0 mL
pH	7.2-7.8
Concentration	20-250 million/mL
Agglutination	None
Motility	>60% progressively motile
Penetration	>30 mm
Viability	>75%
Normal morphology	Laboratory dependent (>70%)
Immature forms	<2%
Leukocytes	None to occasional
Red blood cells	None
Epithelial cells	None to few
Bacteria	None
Fructose	1+ to 4+

Tests for women

- A. Ovulation testing.
- B. Hysterosalpingography.
- C. Ovarian reserve testing.
- D. Other hormone testing.
- E. Imaging tests
- F. Hysteroscopy.
- G. Laparoscopy.

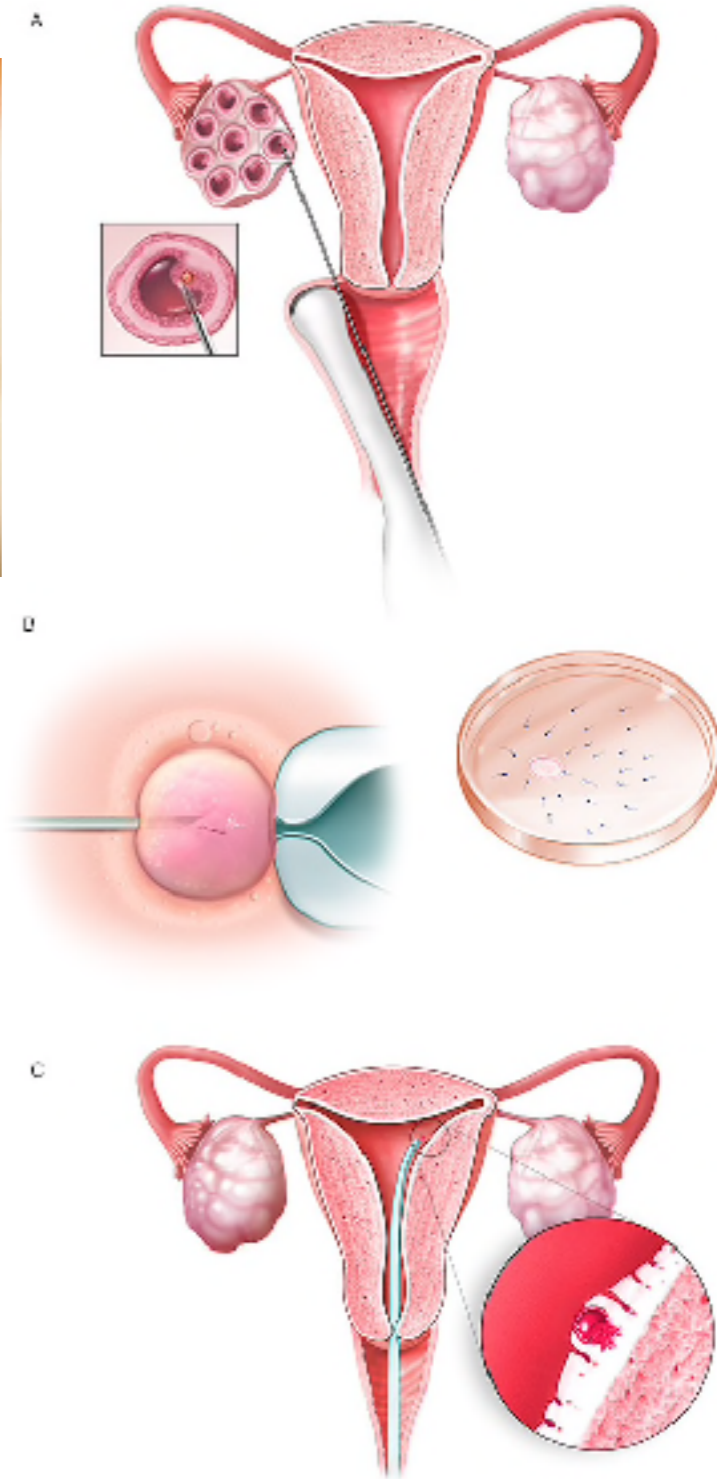
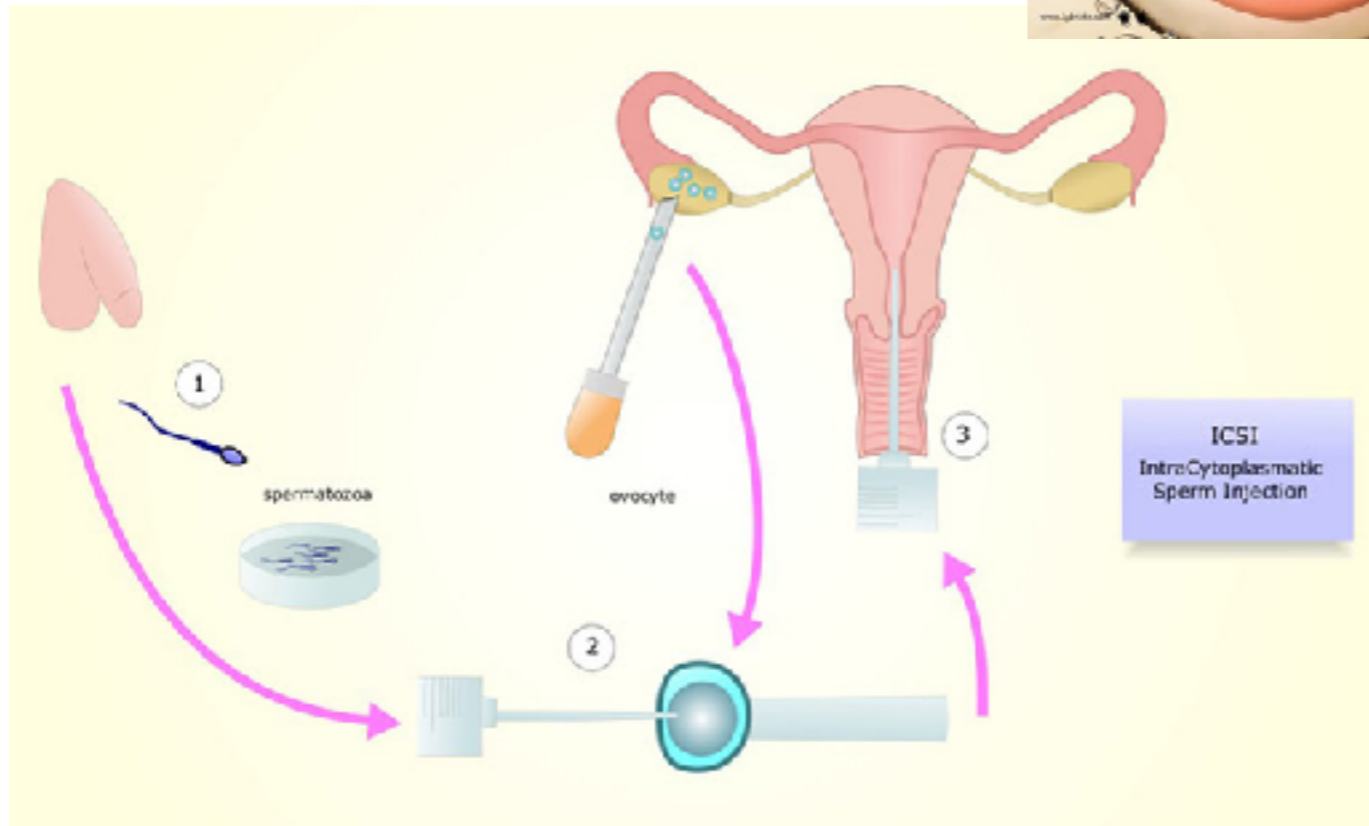
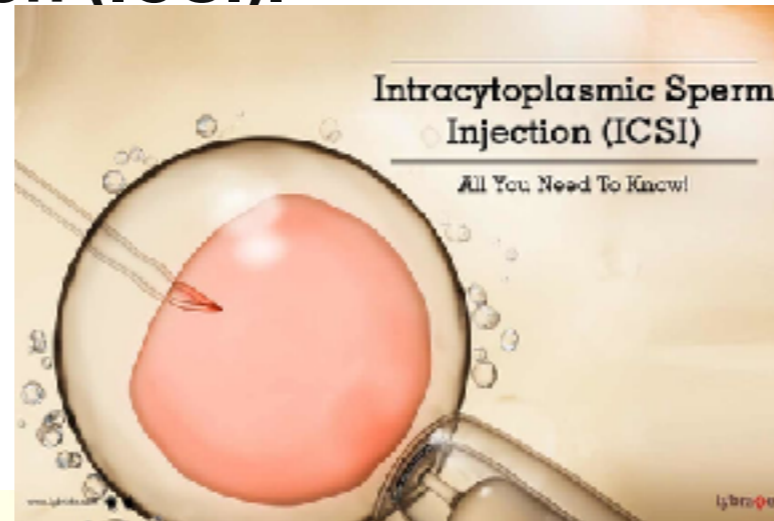


Treatment

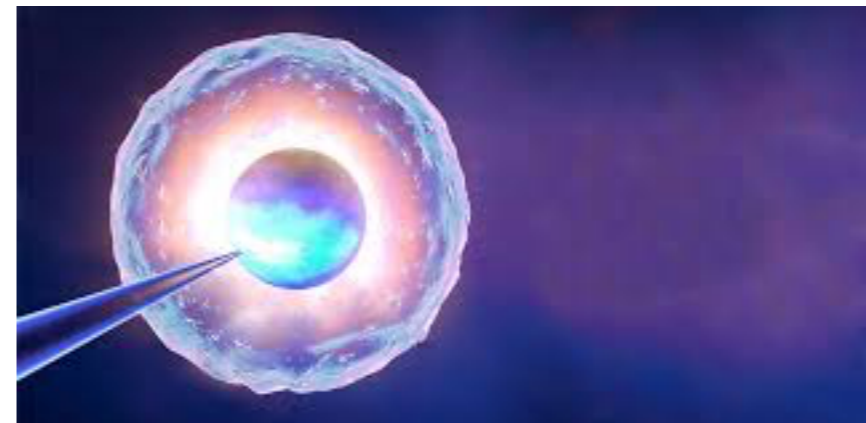
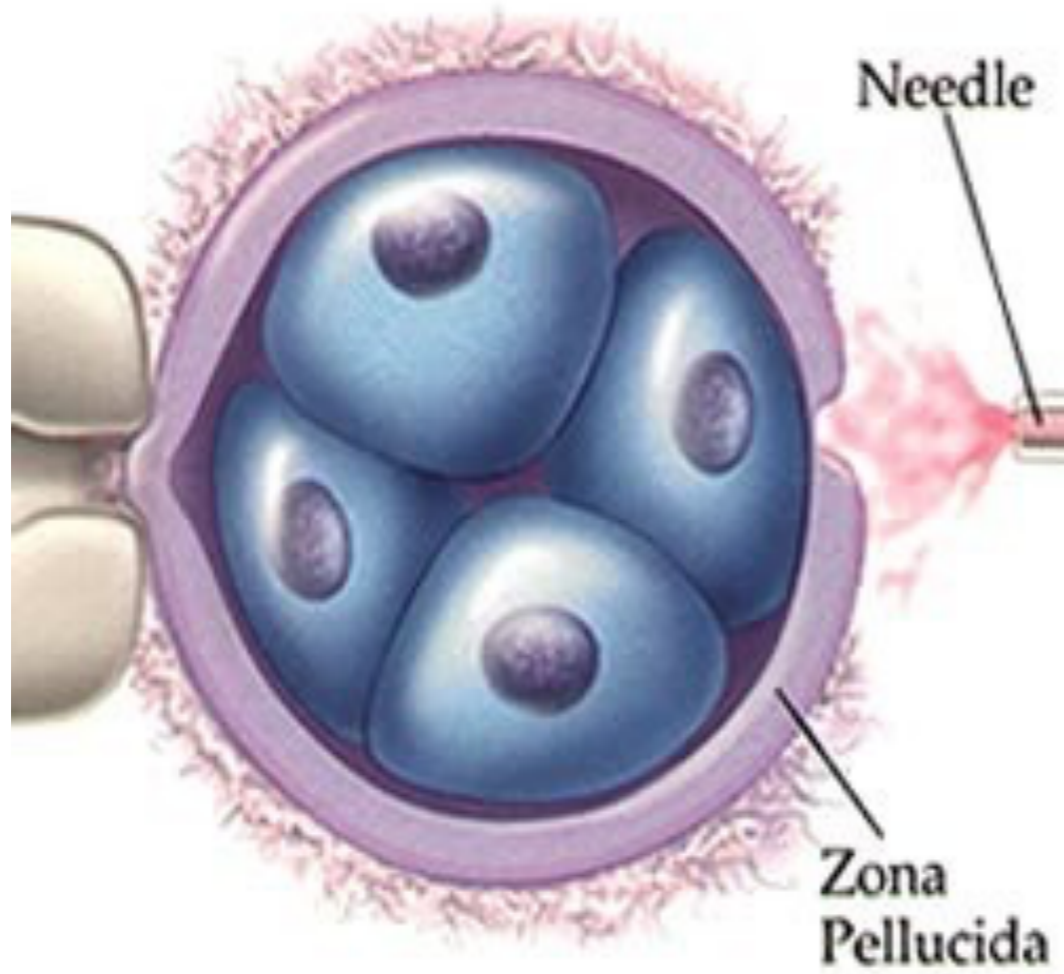
- Education
- Medications to induce egg development and ovulation
- Insemination
- IVF (In Vitro fertilization)
- Third party reproduction
- **Surgery**
 1. Laparoscopy
 2. Hysteroscopy
 3. Abdominal myomectomy

Assisted reproductive technology (ART)

1. Intracytoplasmic sperm injection (ICSI).

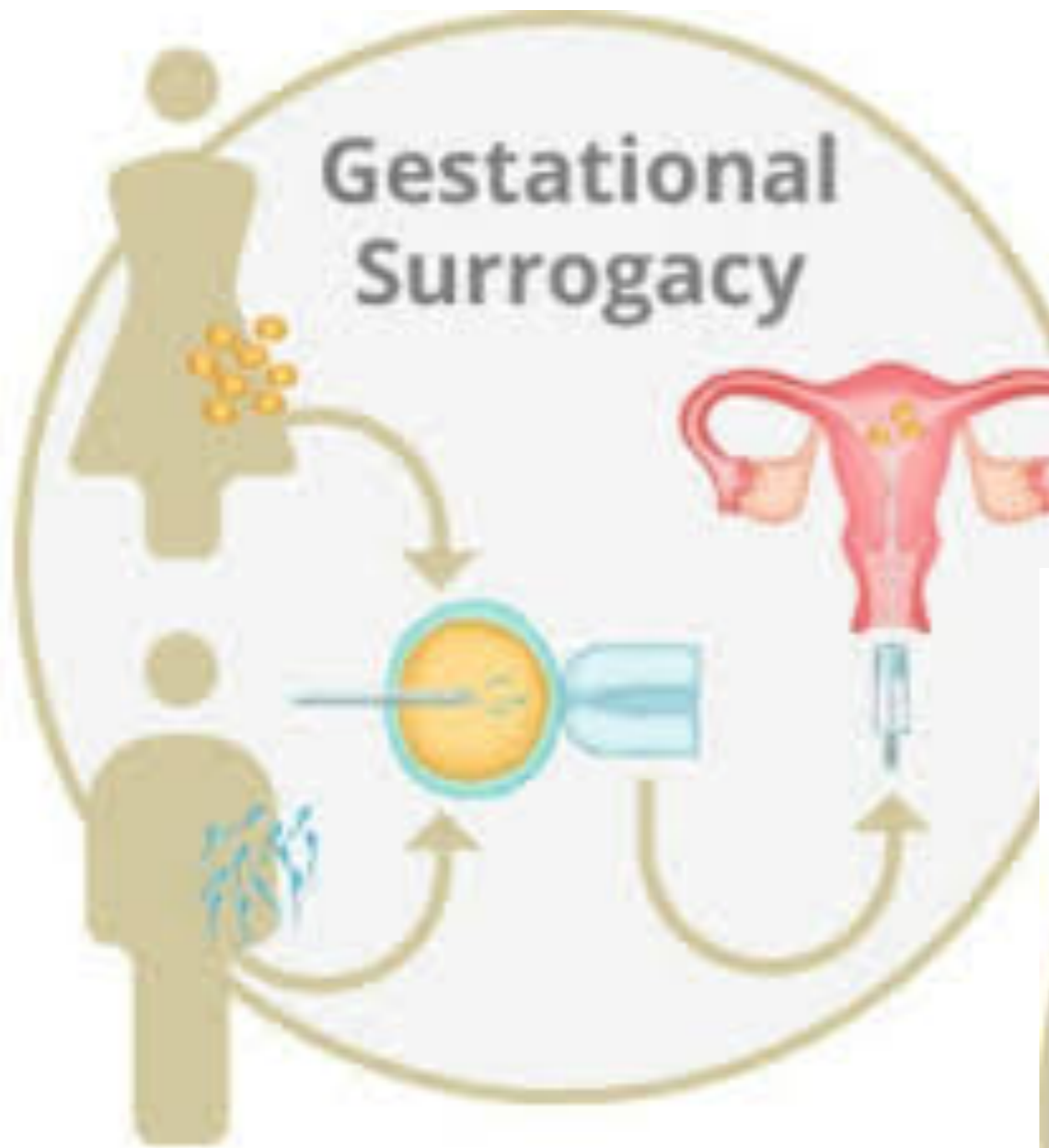


1. Assisted hatching.



1. Donor eggs or sperm.





Complications of treatment

- **Multiple pregnancy.**
- **Ovarian hyperstimulation syndrome (OHSS)**
- **Bleeding or infection.**



PREVENTION OF INFERTILITY

- **MEN :**

- Avoid drug and tobacco use and drinking too much alcohol,
- Avoid high temperatures found in hot tubs and hot baths
- Avoid exposure to industrial or environmental toxins,
- Limit medications that may impact fertility,
- Exercise moderately.

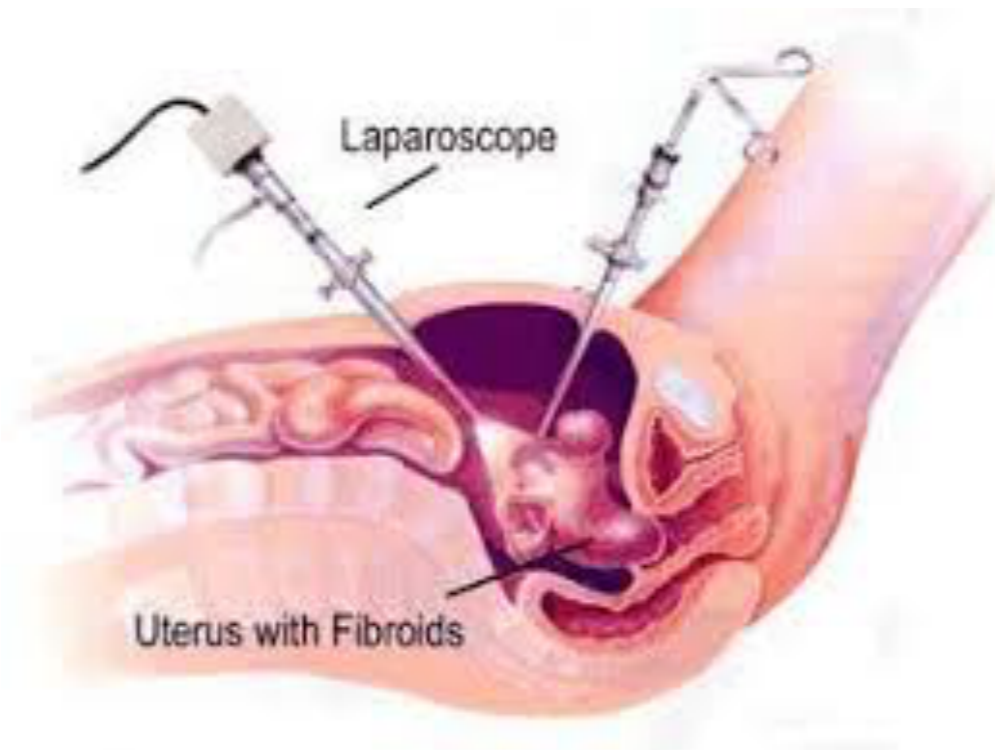
- **WOMEN :**

- Quit smoking
- Avoid alcohol and street drugs
- Limit caffeine.
- Exercise moderately.
- Avoid weight extremes.

SURGERY



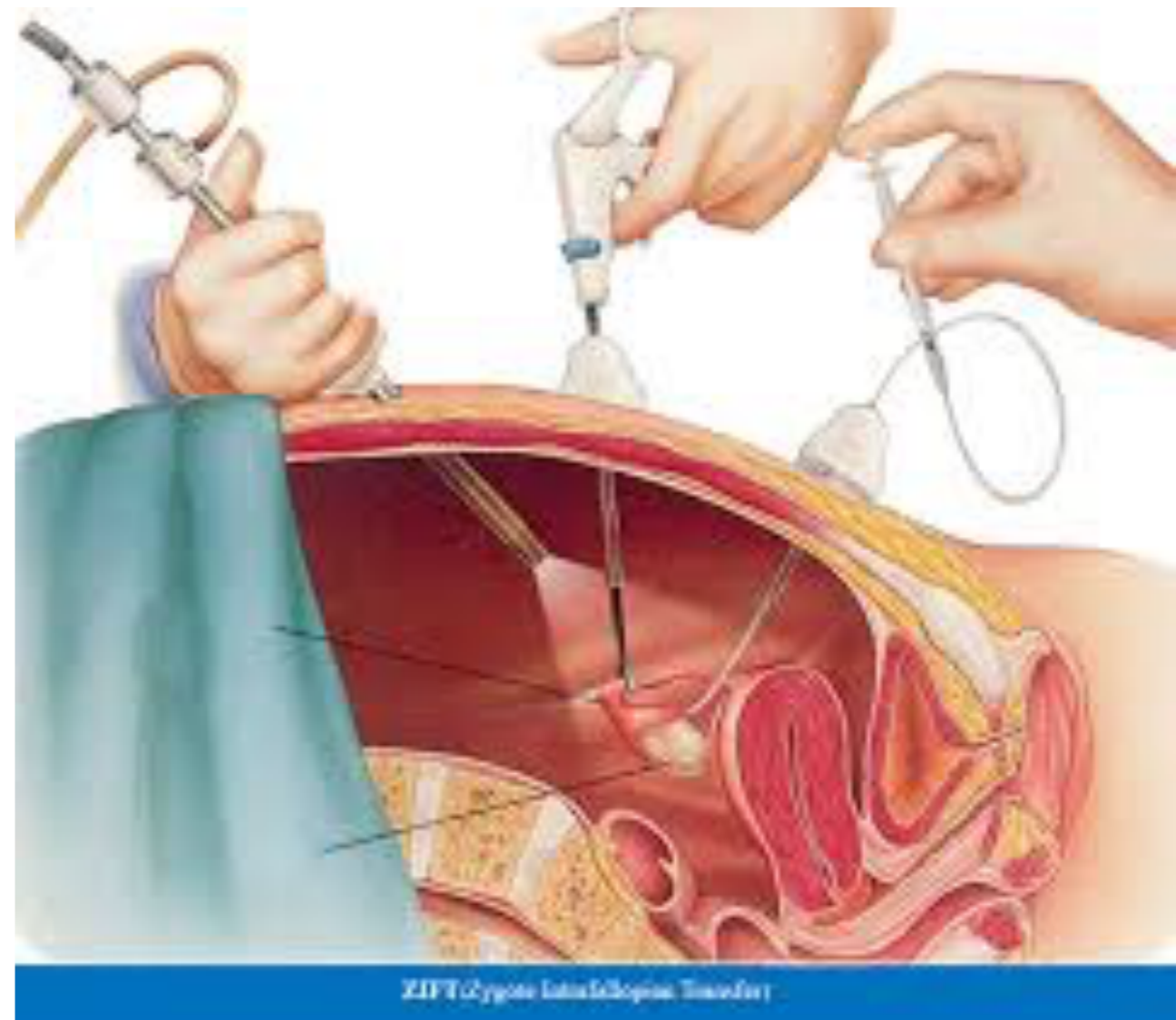
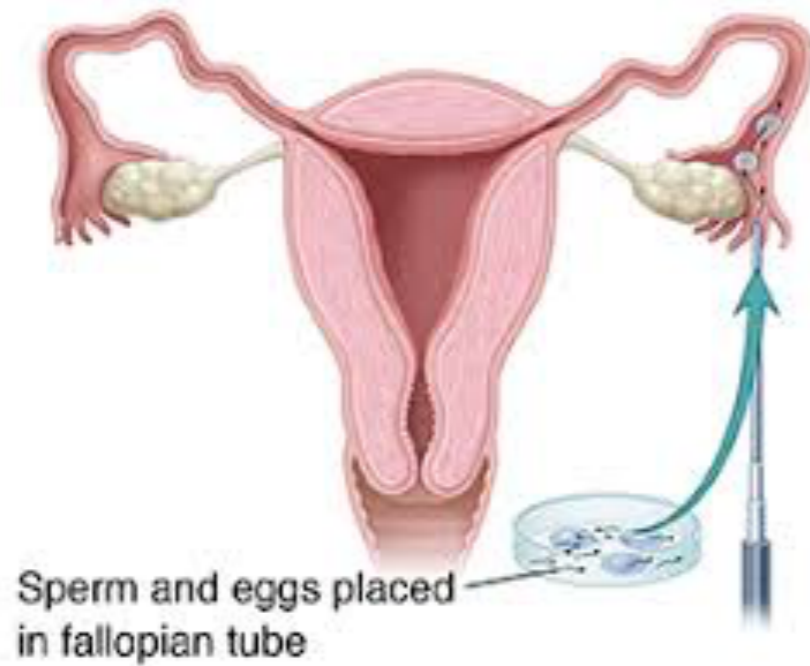
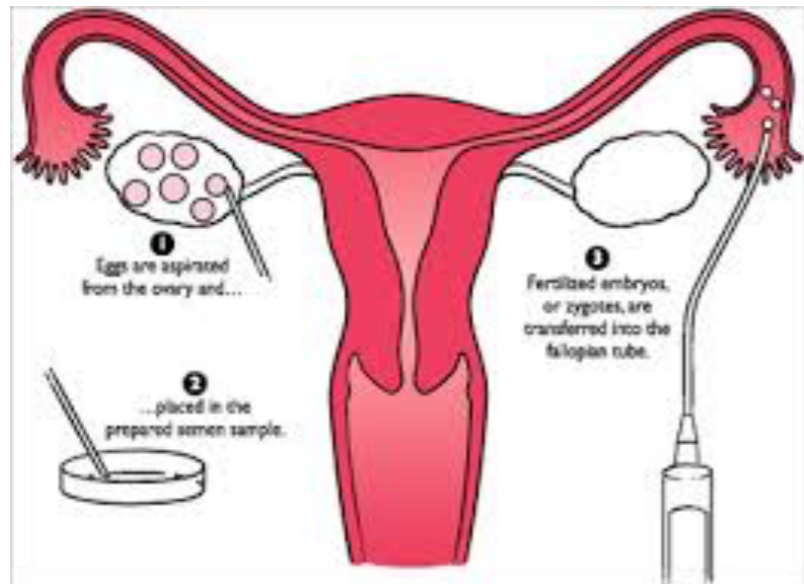
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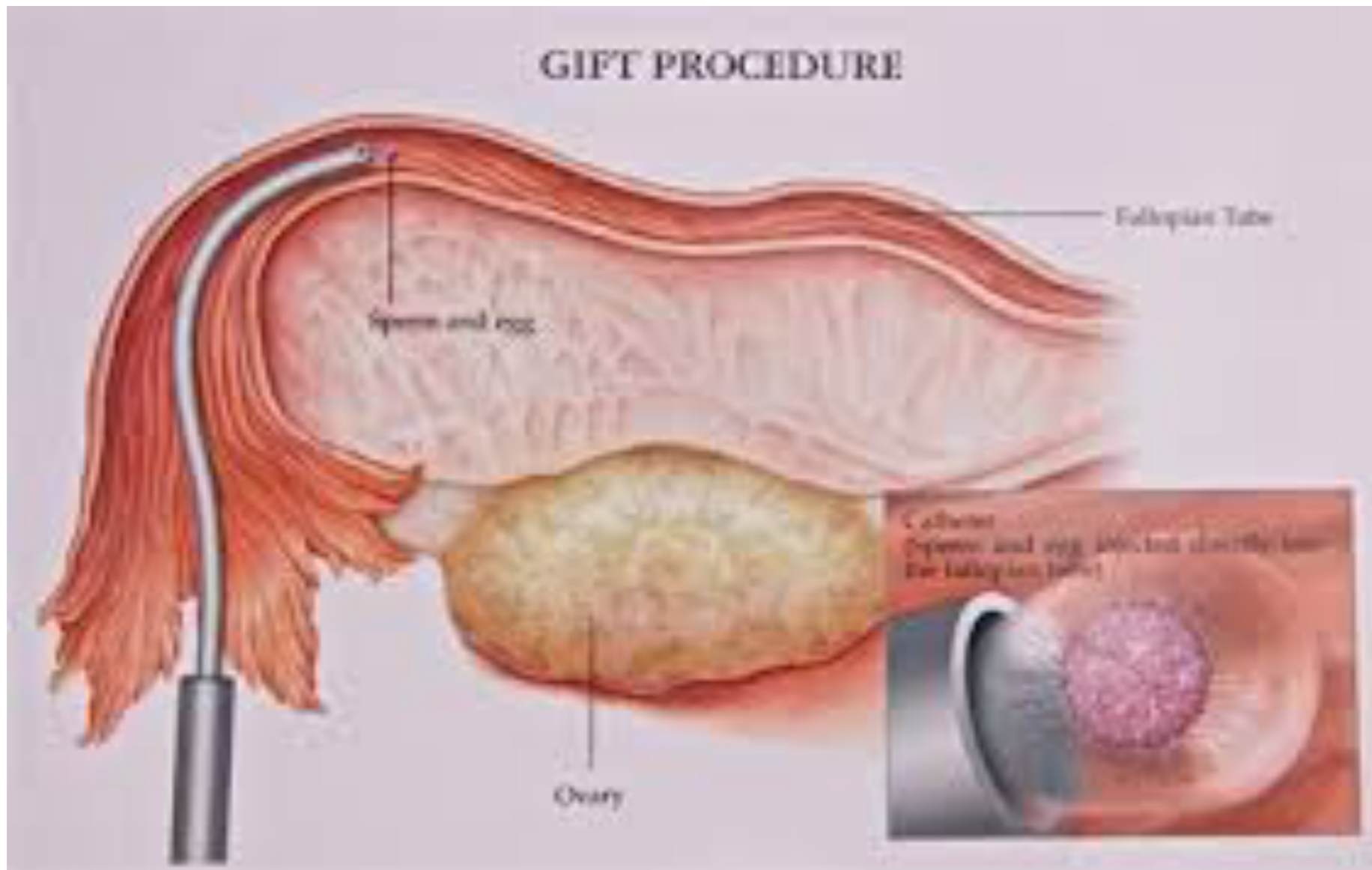
Fibroids Removal Surgery



ZIFT



GIFT



IVF PROCESS

