**Infertility & Assisted Reproductive Technologies**

**Infertility**

* The inability to \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ after \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ of properly timed, unprotected intercourse.
* \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ **Rate**: The monthly probability of conception with a healthy couple is 20%.
* After 12 months, \_\_\_\_\_\_\_\_\_\_\_\_\_\_ of couples will conceive.

**Female Causes of Infertility**

* \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ **Blockage/Damage**
	+ Can keep \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ from reaching \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.
	+ Can cause a fertilized egg to implant in the fallopian tube resulting in an \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ pregnancy.
	+ Can be caused by STI’s such as chlamydia.
* \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
	+ Uterine tissue \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ outside the uterus
	+ Affects ovary, fallopian tube, & uterine function.
	+ The implants respond to hormones, shedding & bleeding in sync with the uterus.
	+ Causes inflammation, pain, scarring, & infertility.
* \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ **Disorders**
	+ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_: No egg is released from the ovaries.
	+ Caused by
		- Abnormal/low levels of hormones (\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_)
		- Tumors
		- Excessive exercise
		- Malnutrition
* \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ **Ovarian Syndrome (PCOS)**
	+ Many small \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_in the ovaries
	+ Eggs do not mature in the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.
	+ Follicles turn into cysts.
	+ Higher than normal levels of androgens (male hormones)

**Male Causes of Infertility**

* **Impaired** \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ **of Sperm**
	+ Keeps sperm from reaching & penetrating the egg.
* \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ **Concentration**
	+ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ million sperm/ml is normal
	+ Below \_\_\_\_\_\_\_\_\_\_\_\_ million sperm/ml is low sperm count.
	+ \_\_\_\_\_\_\_\_\_\_\_\_\_ million sperm/ml is high fertility.
* \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ **Testicle**
	+ One or both testicles fail to descend from the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_cavity during fetal development.
	+ Testes are exposed to \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.
	+ Affects sperm production.
* **Infections**
	+ Cause \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ sperm passages.
	+ Inflammation of the testicles, prostate, urethra, & epididymis
	+ Caused by:
		- STI’s (Gonorrhea & Chlamydia)

**Artificial Insemination**

* \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ is inserted into the female body for the purpose of pregnancy by means other than sexual intercourse.
	+ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
	+ Intracervical
	+ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
	+ Intratubal
* Used when the infertility is \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_related.

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ **Fertilization**

* Eggs & sperm are harvested from the male & female and manually combined in a \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.
* Usually several eggs are fertilized.
* A decision must be made regarding the number of embryos to implant into the uterus.
* Remaining embryos can be \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

**Intracytoplasmic Sperm** \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

* Egg is injected with a single sperm.
* A special needle is used to insert the sperm into the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ of the egg.
* Embryo is transferred into the female uterus.

**Miscarriage**

* Spontaneous loss of fetus before \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ weeks.
* Most are due to \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ abnormalities in the fetus.
* Most occur before \_\_\_\_\_\_\_\_\_\_\_\_\_\_ weeks.
* \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_% of all fertilized eggs are miscarried, usually before the female knows she is pregnant.
* \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_% of miscarriages are known miscarriages.