

## Reproductive Control :

(page 500)

First “test tube baby”.....1978

Reproductive technologies are processes used to either...

- enhance one’s ability to reproduce (by treating “infertile” individuals)
- delay or avoid conception (contraceptives)

Obstacles interfering with conception...

Female...

1. blocked oviducts ( result of long term damage done by P.I.D.)
2. hormonal imbalances that prevent ovulation
3. body weight ( over / underweight )
4. endometriosis ( uterine infection ) that could affect “implantation” of an embryo
5. Environmental factors ( chemicals, radiation)

Male....

1. **Blockage** of the vas deferens or epididymis
2. **Low sperm count** ( heat, chemicals, smoking, alcohol )
3. Higher than normal numbers of **abnormally developed sperm** ( two heads, two tails, no tails, etc)

**Technological Solutions....**

(Improves the chances for conception)

**Artificial Insemination -**

concentrated sperm samples ( from a donor or partner ) placed inside the female when there is a male problem

**In vitro fertilization - (IVF)**

To get around blocked oviducts, ova are fertilized in a lab, then implanted into the female

**In vitro maturation - (IVM)**

A number of oocytes are removed from the female, mature in a lab, in preparation for

IVF treatment using her own eggs

### Superovulation -

FSH and HCG injections cause multiple ovulations, and larger numbers of eggs can be collected in a shorter period of time

### Surrogate Mothers -

Fertilized egg (IVF) placed inside another woman, who carries the child to term....or male's sperm sample placed inside a surrogate mom

### Cryopreservation -

oocytes, semen, or embryos kept frozen (extras produced during superovulation, IVF, or prior to radiation treatment for cancer)

### Contraception - see table 15.2, page 502

devices or processes used to avoid conception in sexually active women.

## Contraception Alternatives....

Abstinence

vasectomy / tubal ligation

Birth control pills

depo - provera injections

Norplant implants

Intrauterine devices (IUD's)

Diaphragms / cervical caps

male / female condoms

spermicidal foams / jellies

rhythm method

Emergency : morning after pill

Dosage of estrogen and progesterone prevents ovulation, or if taken later, prevents implantation.

Issues...

Contraceptives have to be made available to the public, they have to know how to use it effectively. Cultural or religious impacts have to change if countries expect population growth to

slow down. People have to want, and be comfortable with, having fewer children. Some governments have legislation controlling how many children a couple may have, or offer prizes, lotteries, homes, or other incentives to families volunteering for sterilization.