

# Reproductive Technologies

Biology 30

## Learner Outcome:

- Describe the physiological or mechanical basis of different reproductive technologies;
  - i.e., conception control, in-vitro fertilization, infertility reversal

# Infertile vs. Sterile

*Infertility* – trouble getting pregnant

*Sterility* – not able to become pregnant  
(permanent)



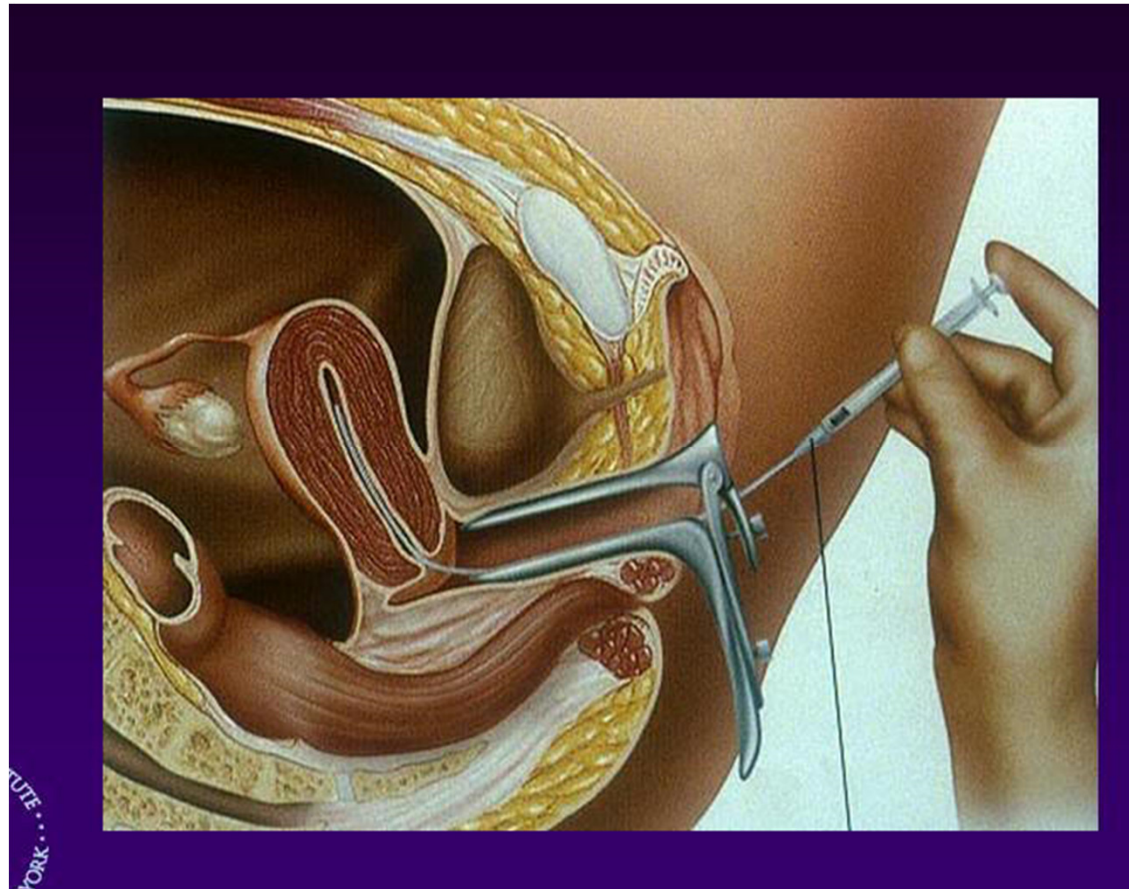
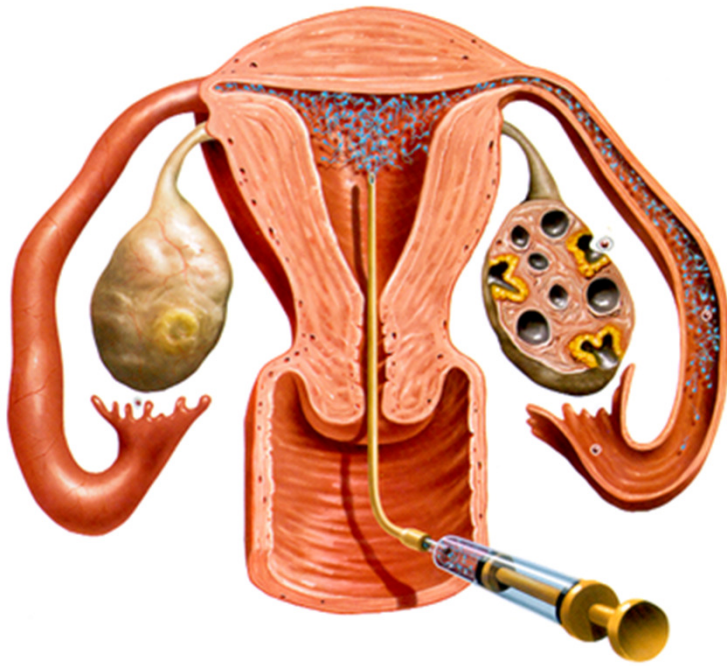
## Reason in Males:

- low sperm count
- decreased testosterone levels
- injury
- mumps
- blockage – from trauma or infection
- vasectomy (surgical cutting of vas deferens)  
text pg. 513
- psychological factors

# Reasons in Females:

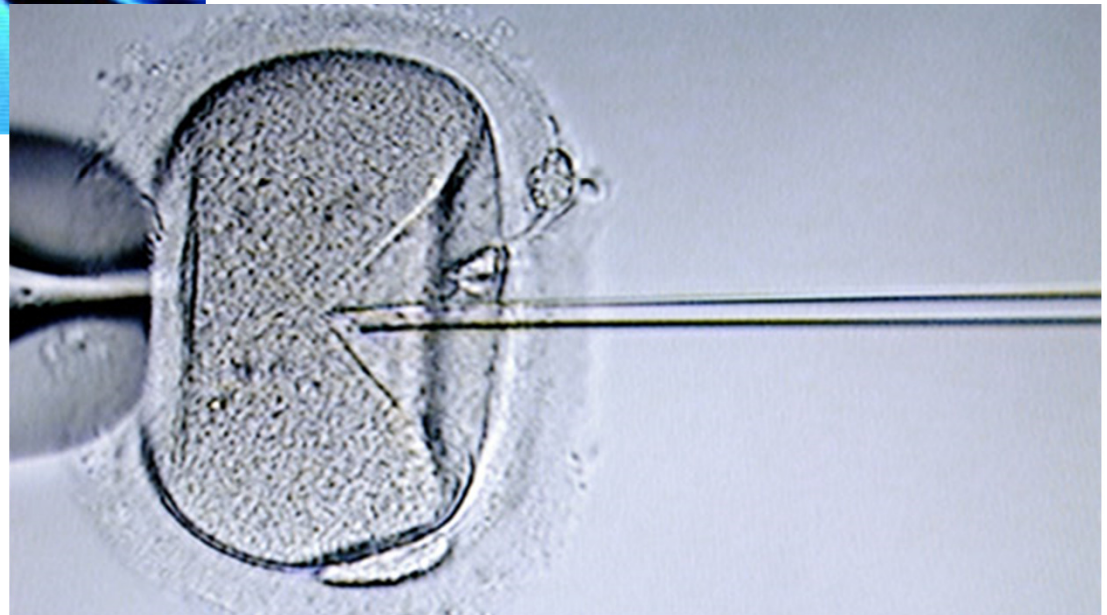
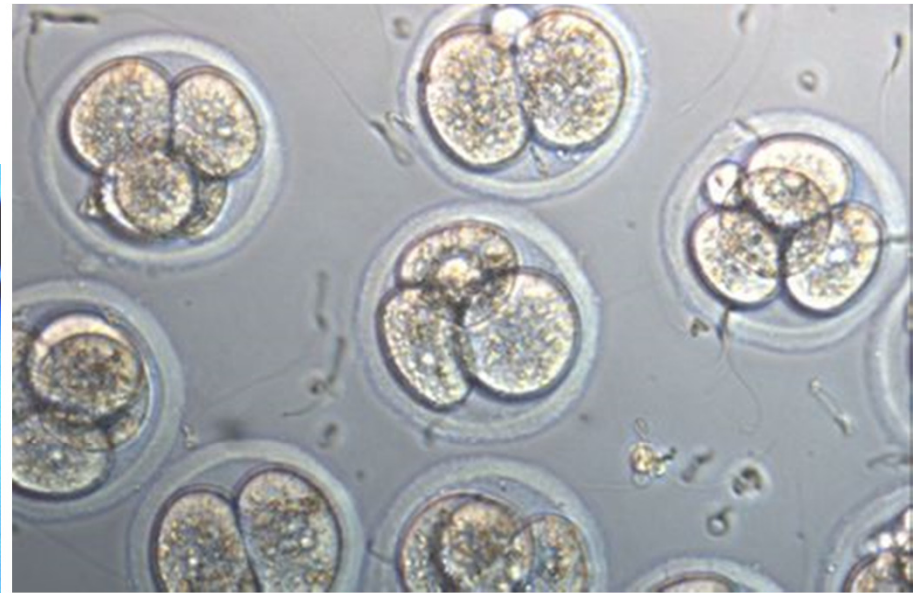
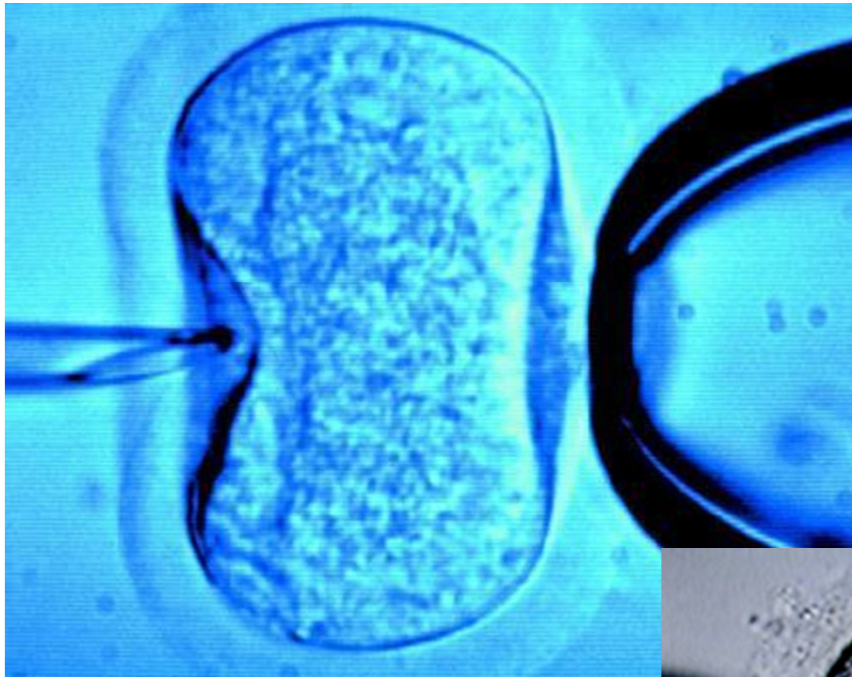
- inability to produce eggs
- stress
- rigorous activity (sports training)
- breast feeding (sometimes)
- blockage – cervix or fallopian tubes
- inability to carry an embryo
- tubal ligation (text. pg. 523)
- hysterectomy (removal of uterus)
- oophectomy (removal of ovary)

# Artificial Insemination





# IVF



# Inside the IVF Lab

- [http://www.dailymotion.com/video/x9alkl\\_exclusive-inside-the-ivf-lab\\_tech](http://www.dailymotion.com/video/x9alkl_exclusive-inside-the-ivf-lab_tech)
- [Hard link](#)



U  
l  
t  
r  
a  
s  
o  
u  
n  
d



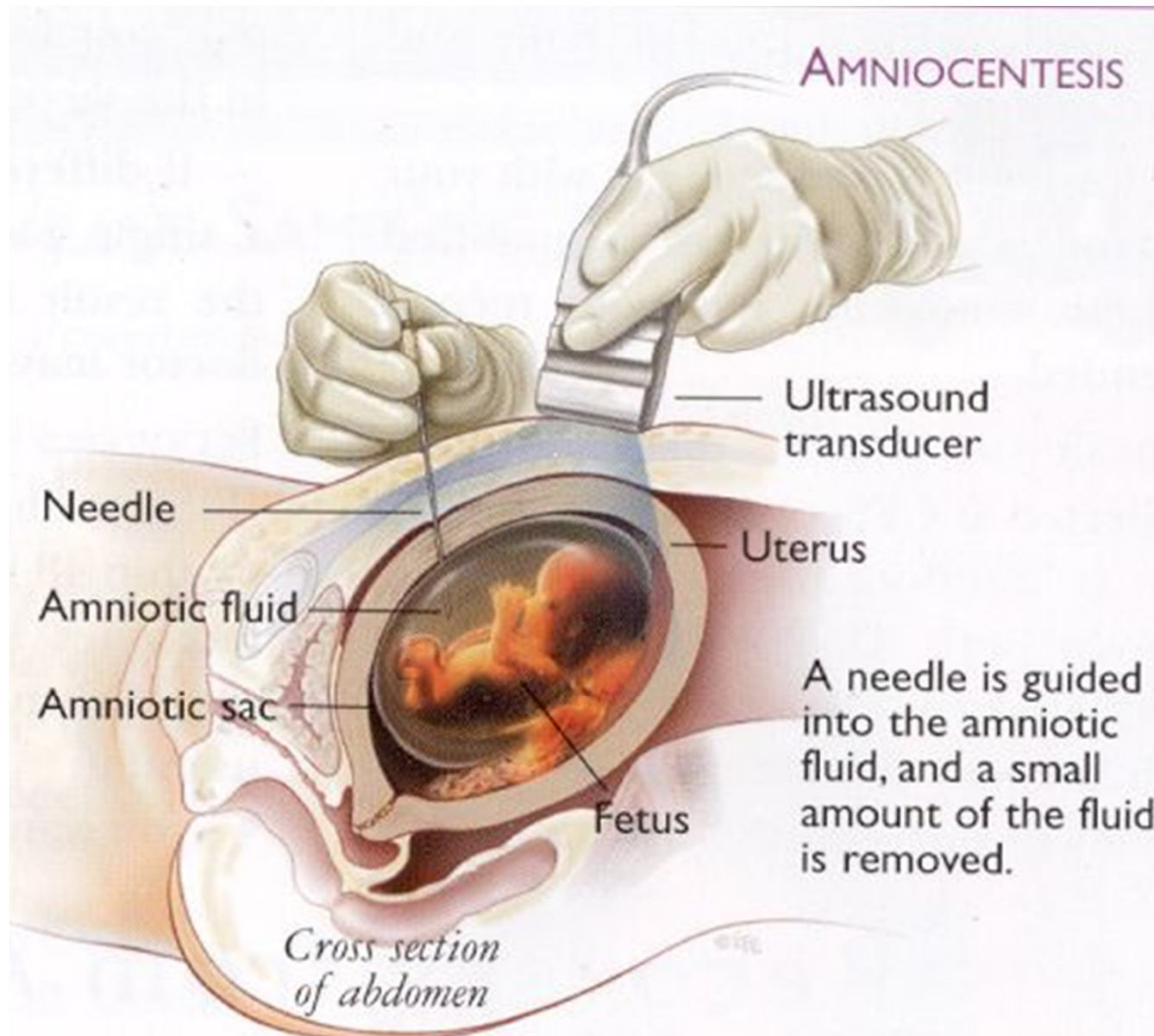
Transducer (probe) on the abdomen



Fetus at 9 weeks



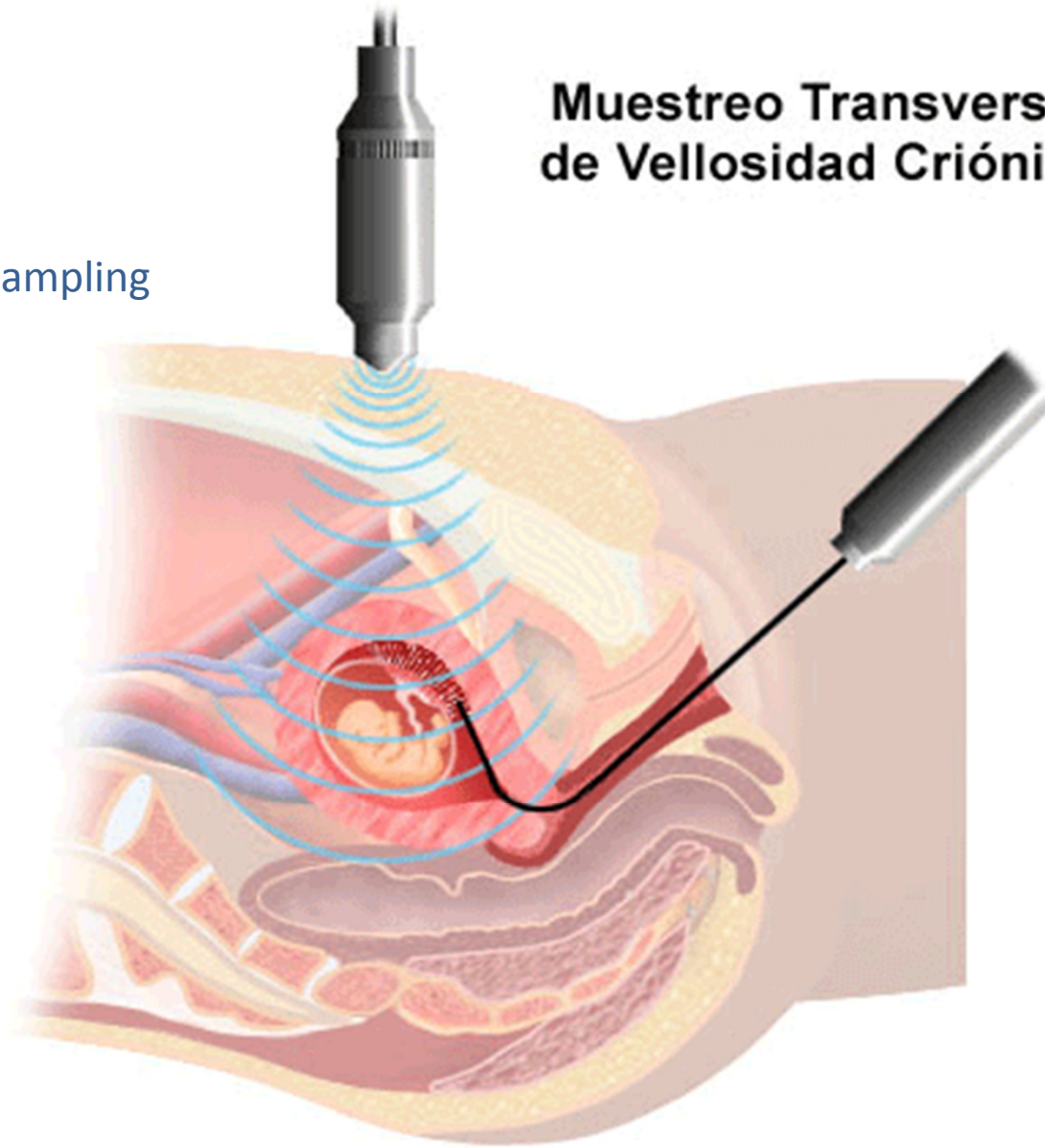
# Prenatal Diagnosis



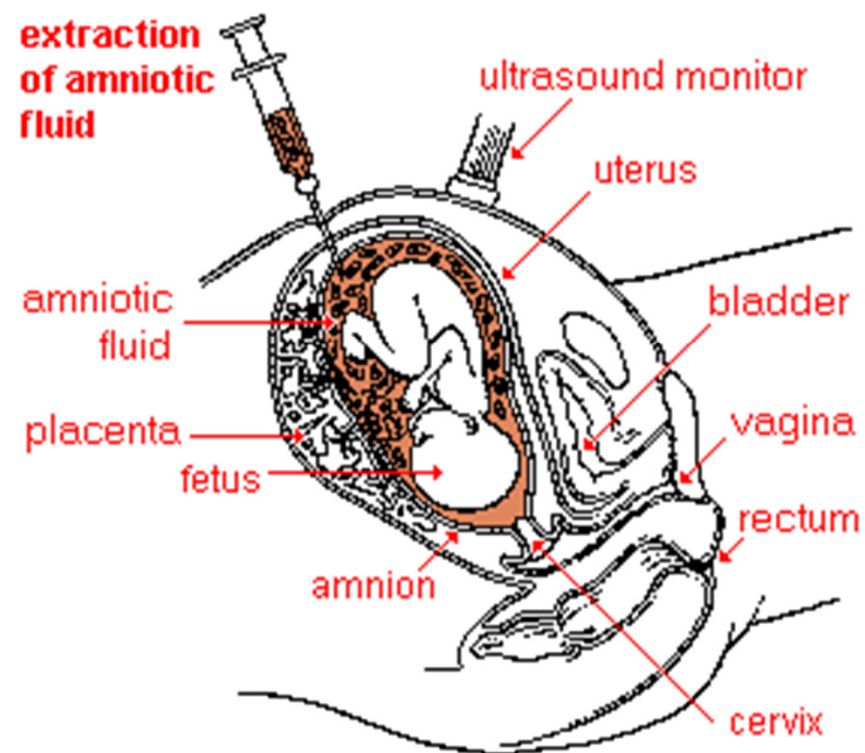
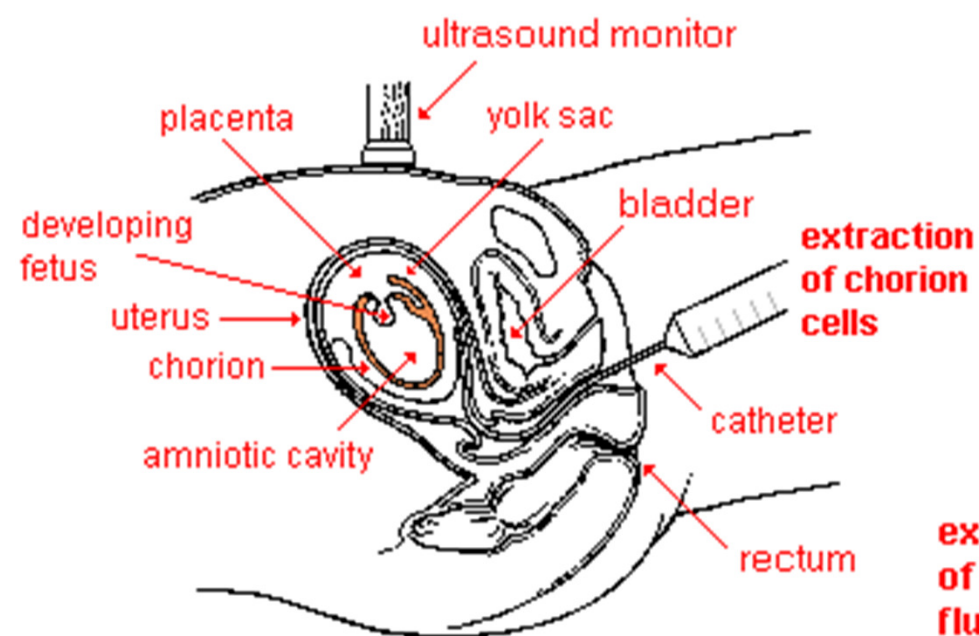
**CVS**

Chorionic Villi Sampling

**Muestreo Transversal  
de Vellosoidad Criónica**







# Fertility Drugs

- Artificial Hormones to help induce the reproductive system of a woman.
- **FSH** can be used to stimulate a woman to produce multiple mature oocytes for triggered ovulation (**LH**) or harvest for IVF

# To Do:

- Case Study: Human Reproductive Technology
  - Page 542-543 #1-5
    - #5 is worth 4 marks so make sure you explain your answer!