

Parturition & Lactation

Biology 30 - Reproduction



Parturition:

- Complex shift in hormone levels causing birth to occur

3 Stages:

1. Cervix dilates: early cervical dilation may result in the loss of the mucous plug
 - Dilates about 4-5 cm
 - Hormones:
 - A. Relaxin – produced by placenta – causes pelvic ligaments to loosen
 - B. Oxytocin – produced by hypothalamus (PPG) – levels gradually increase
 - C. Prostaglandins – produced by the placenta – help stimulate uterine contractions



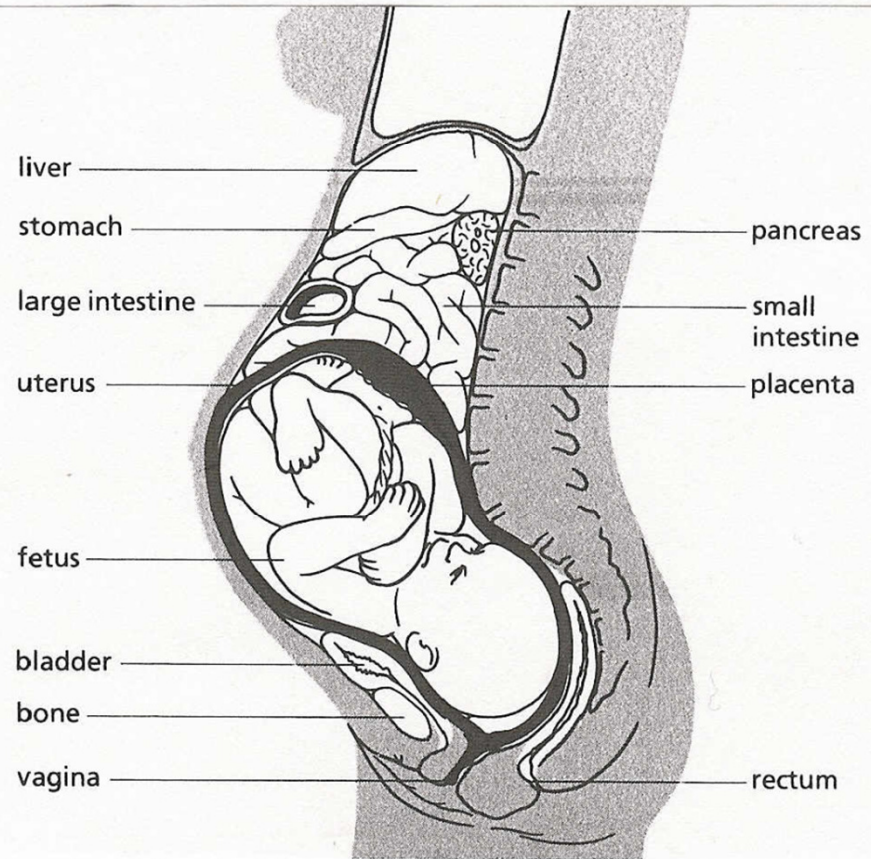
2. Expulsion of baby (delivery)

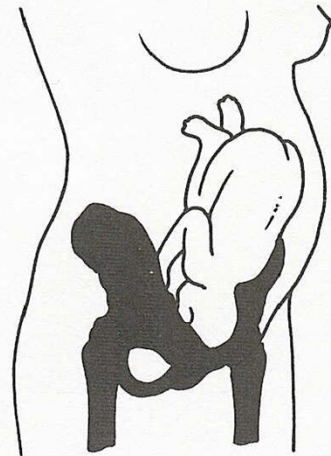
- The cervix dilates to 10 cm

3. Expulsion of the Placenta

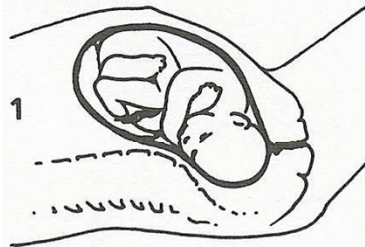
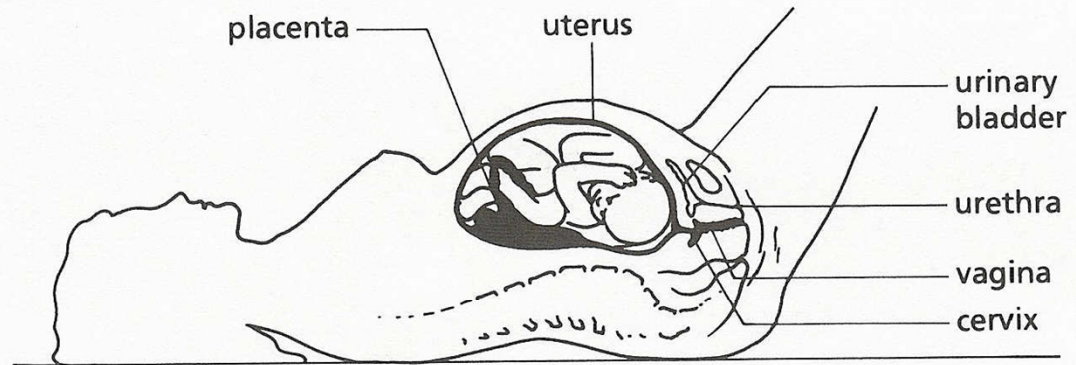
- Most vigorous contractions
- Oxytocin levels increase during delivery of placenta

Figure 19.6.
Section through the abdomen.
The fetus is shown in position
with the head down ready to
enter the birth canal at the
start of labour.

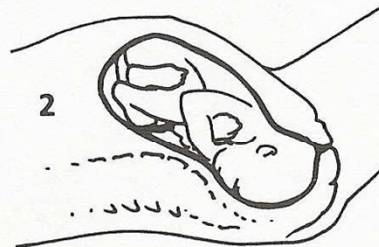




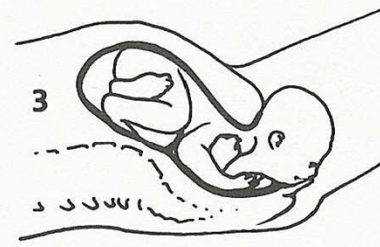
position of head in pelvis



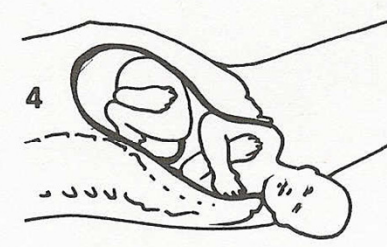
1 engagement and descent



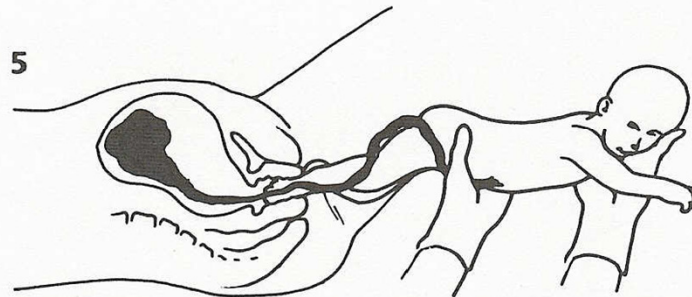
2 rotation start of extension



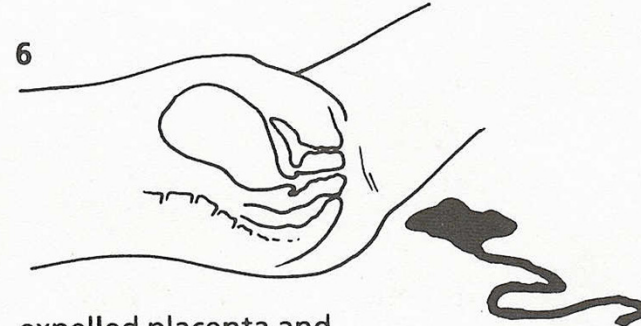
3 extension



4 delivery of head and first shoulder



5 expulsion of placenta follows shortly after birth.



6 expelled placenta and umbilical cord. Uterus contracting.

(a)



(b)



(c)

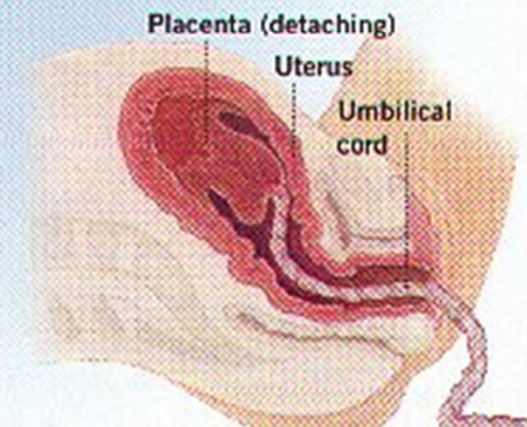
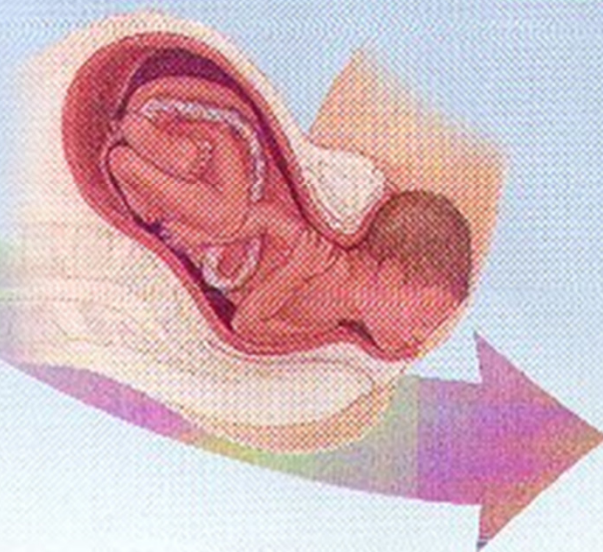
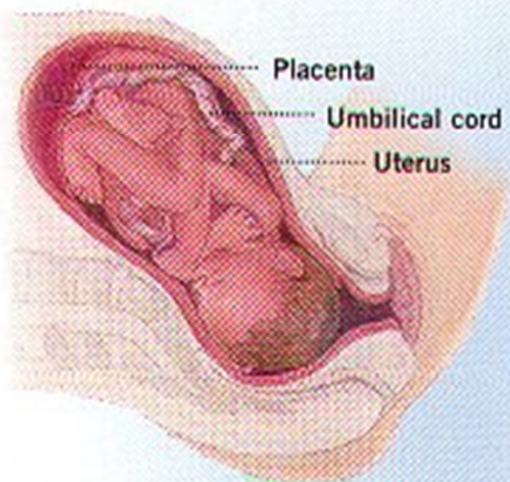


(d)



Human Birth

During a normal birth, a baby is delivered headfirst through the vagina. The muscles of the uterus contract to push the baby out.



Lactation Hormones:

- *Prolactin:*
 - increases in concentration after birth
 - Colostrum milk produced immediately after birth (high in sugars and proteins, low in fat, contains antibodies)
 - Sometimes inhibits FSH secretion
 - A woman who is producing milk may lose 1-2 grams of calcium per day

Ovarian Cancer and Breastfeeding

- *Oxytocin*

- Stimulates smooth muscle of the breast to release milk as the baby begins to nurse

- The release of milk is stimulated by the baby's suckling AND presence of Oxytocin

