

## Parturition -II

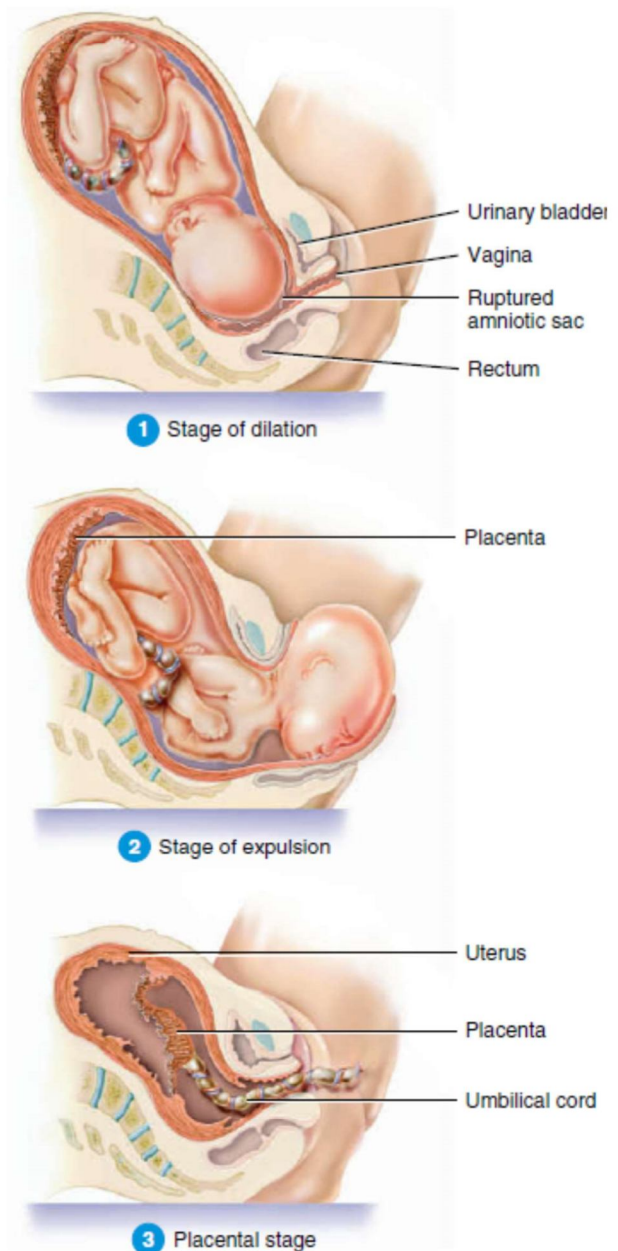
amniotic sac does not rupture spontaneously, it is ruptured intentionally.

2. *Stage of expulsion.* It expands from complete cervical dilation to delivery of the baby. It lasts for 10 minutes to several hours.

3. *Placental stage.* The time (5-30 minutes or more) after delivery until the placenta or "afterbirth" is expelled by powerful uterine contractions is the placental stage. These contractions also constrict blood vessels that were torn during delivery, reducing the likelihood of hemorrhage.

usually, labour lasts longer with first babies, typically about 14 hours. For women who have previously given birth, the average duration of labour is about 8 hours—although the time varies enormously among births.

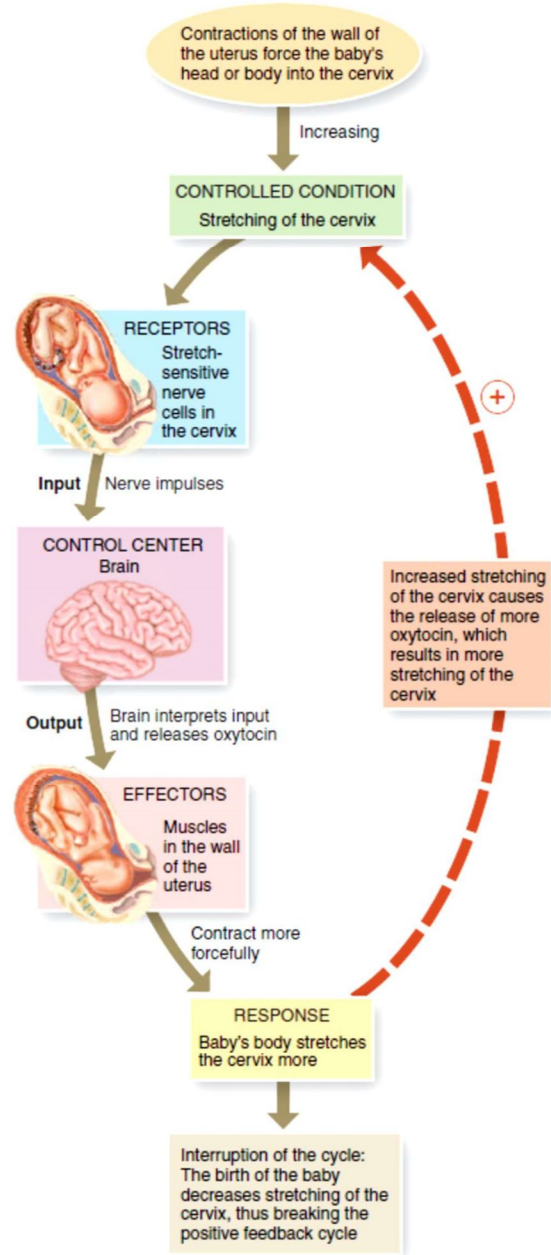
Following the delivery of the baby and placenta is a 6-week period during which the maternal reproductive organs and physiology return to the



prepregnancy state. This period is called the puerperium. Through a process of tissue catabolism, the uterus undergoes a remarkable reduction in size, called involution, especially in lactating women. The cervix loses its elasticity and regains its prepregnancy firmness. For 2-4 weeks after delivery, women have a uterine discharge called lochia, which consists initially of blood and later of serous fluid derived from the former site of the placenta.

### Control of labour

Contractions during parturition occurs via a positive feedback cycle. The first contractions of labour (stimulus) push part of the foetus into the cervix, the lowest part of the uterus, which opens into the vagina. Stretch-sensitive nerve cells (receptors) monitor the amount of stretching of the cervix (controlled condition). As stretching increases, they send more nerve impulses to the brain, which in turn releases the hormone oxytocin into the blood. Oxytocin causes muscles in the wall of the uterus (effector) to



contract even more forcefully. The contractions push the foetus farther down the uterus, which stretches the cervix even more. The cycle of stretching, hormone release, and ever-stronger contractions is interrupted only by the birth of the baby. Then, stretching of the cervix ceases and oxytocin is no longer released.

