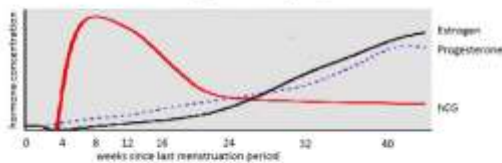


Hormones secreted by the placenta



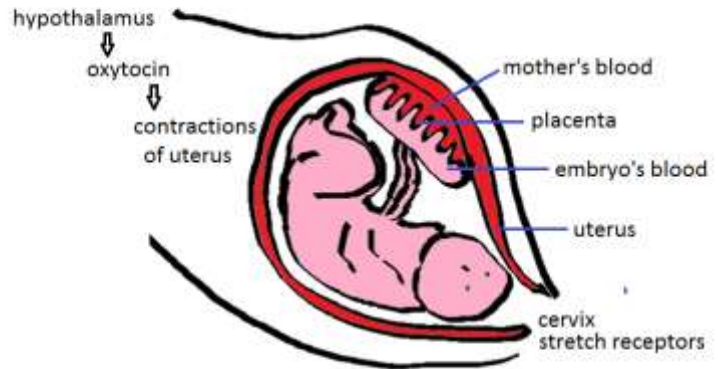
As the placenta grows it produces more estrogen and progesterone



D Faure 2015

Exchange of materials

The placenta provides a large surface area for exchange of oxygen, carbon dioxide, urea and nutrients between mother's blood and fetus's blood



Positive feedback.

The baby's head pressing on stretch receptors in the cervix causes the mother's hypothalamus to produce oxytocin, which causes contractions of the uterus, which causes the baby's head to press on the cervix...

Use the diagram above to help answer the following questions.

- Which hormone(s) are made by the placenta during pregnancy?
 - Oxytocin
 - Estrogen
 - Progesterone
 - hCG
 - i only
 - i and ii
 - ii and iii
 - i and iv
- Which of the following are likely to diffuse from the fetus's blood to the mother's blood in the placenta?
 - Urea and carbon dioxide
 - Carbon dioxide and oxygen
 - Glucose
 - Oxygen, glucose, and many nutrients.
- Estrogen increase the number of oxytocin receptors in the uterus during pregnancy. What is the role of oxytocin during a pregnancy?
 - It prevents muscle contraction in the uterus.
 - It stimulate muscle contractions in the uterus
 - It maintains the this uterus lining
 - It inhibits the production of estrogen and progesterone



Pregnancy – IB style questions

Positive feedback is very important during the process of birth.

1. Outline the term 'positive feedback'

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2. Describe the role of uterus muscles, stretch receptors in the cervix and oxytocin in positive feedback which leads ultimately to the birth of a baby.

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