

A Case Study
Circulatory, Lymphatic and Digestive Systems Review - Bi 12

Scenario:

A healthy woman is 8 months pregnant. Her blood type is O negative and the fetus is O positive.

At 12 PM the woman visits a friend and eats a chicken burger with lettuce, tomato, pickle, mayo, fries and a large glass of milk.

1. Explain what happens within the next 6 hours (i.e.: which food is being digested, where, enzymes involved, absorption/excretion of nutrients, etc)
2. Take into account the fetal nutritional requirements (how, where and what it receives)

At 6:30 PM the woman drives home but becomes involved in a car accident where she breaks her arm and bleeds severely.

3. Explain what is happening to her blood pressure, blood velocity and blood volume during the next few minutes before she gets medical attention.
4. How does her body compensate for the blood loss?

Her body automatically begins to repair the damage.

5. Describe how the circulatory and lymphatic systems are involved in this process.

She arrives at the hospital after losing a lot of blood.

6. What type of blood can she receive? Explain why.

With all of the trauma the woman goes into labour.

7. What hormones are released during the birth? Describe the function of each.
8. What special considerations would the doctor take into account once the baby is born? Describe how further complications will be avoided.