

# MODULE 2 L03

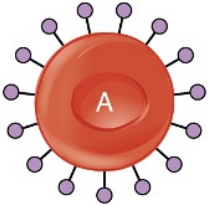
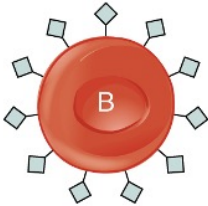
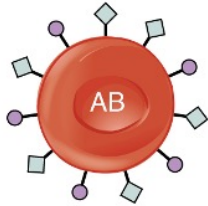
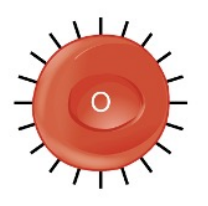



## Blood Type

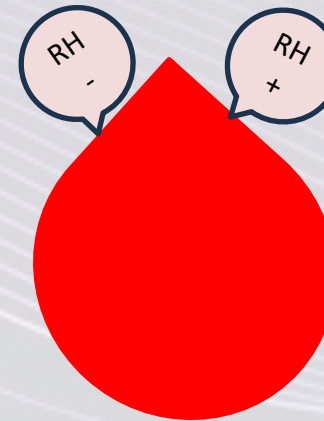
Dr. Lisa Brinn  
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# Blood Types

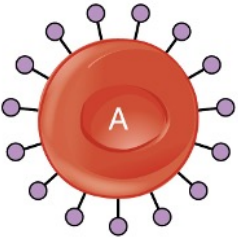
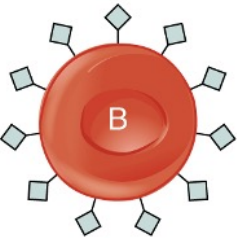
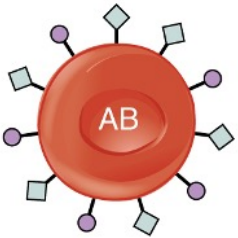
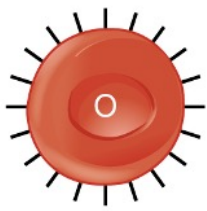






- Determined by surface antigens
  - ❖ Also known as agglutinogens
  - ❖ Are glycoproteins or glycolipids
    - Characteristics are genetically determined
    - 50 different types
      - 3 important ones
        - Antigen A
        - Antigen B
        - Antigen D (Rh)

Blood Type				
	A	B	AB	O
Red Blood Cell Type				
Antigens in Red blood Cell	 A antigen	 B antigen	 A and B antigens	None

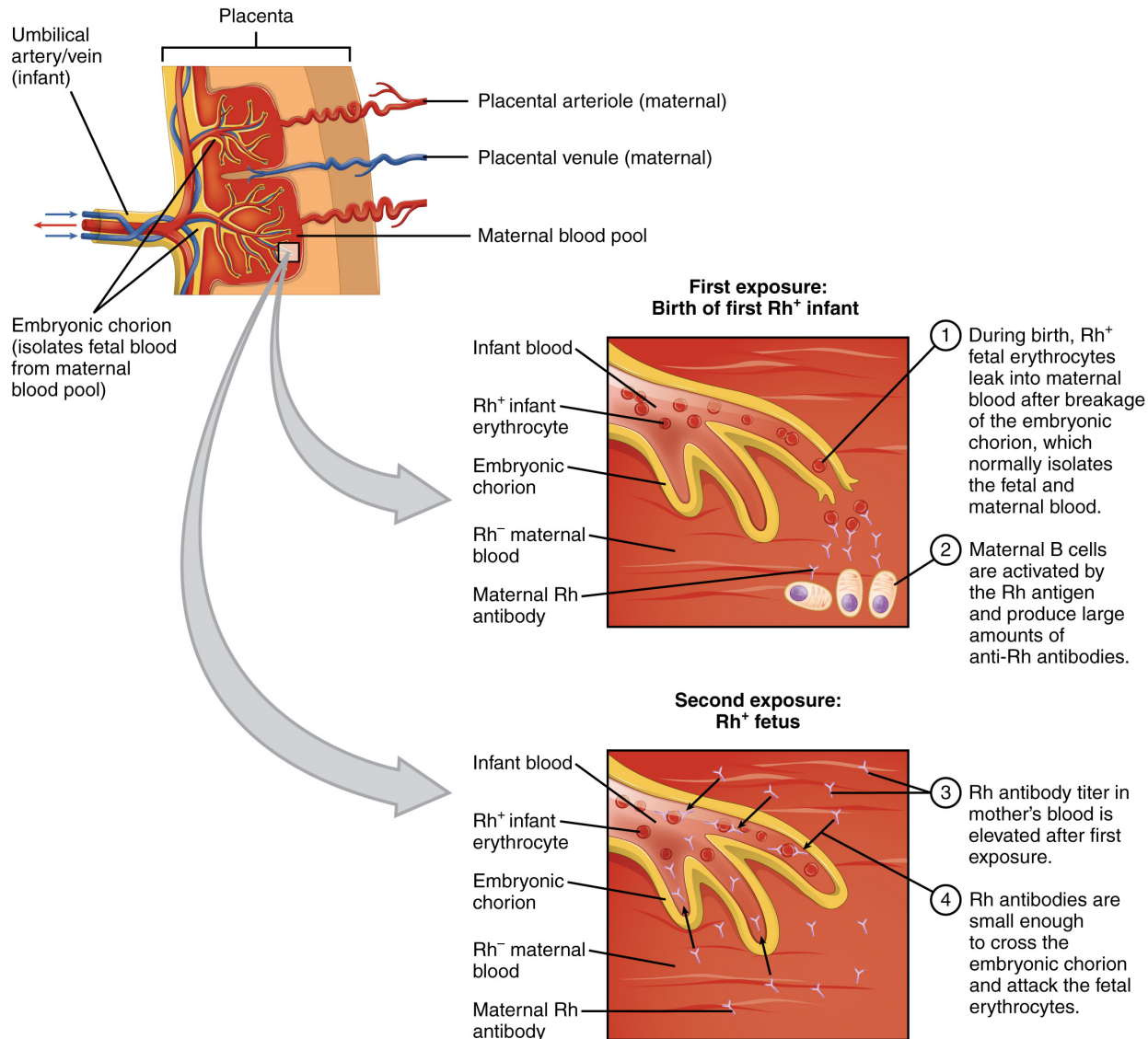


# Antibodies and Cross-Section

Blood Type

	A	B	AB	O
Red Blood Cell Type				
Antigens in Red blood Cell	 A antigen	 B antigen	 A and B antigens	None
Antibodies in Plasma	 Anti-B	 Anti-A	None	 Anti-A and Anti-B
Blood Types Compatible in an Emergency	A, O	B, O	A, B, AB, O (AB <sup>+</sup> is the universal recipient)	O (O is the universal donor)

# Erythroblastosis Fetalis



- First exposure of an Rh<sup>-</sup> mother to Rh<sup>+</sup> erythrocytes during pregnancy induces sensitization.
- Anti-Rh antibodies begin to circulate in the mother's bloodstream.
- Second exposure occurs with a subsequent pregnancy with an Rh<sup>+</sup> fetus in the uterus.
- Maternal anti-Rh antibodies may cross the placenta and enter the fetal bloodstream
  - causes agglutination and hemolysis of fetal erythrocytes.