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BLOOD GROUPS

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BLOOD GROUPS AND BLOOD TYPING

There are a few different blood types, this refers to the antigens present on red blood cells (or erythrocytes) within the persons blood. Blood typing is something that is genetically passed on, therefore two parents that are blood type A couldn't have a child that was blood type B.

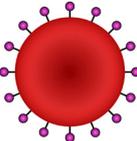
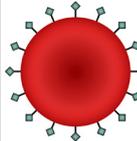
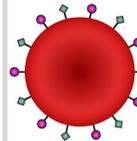
There are 4 main blood groups:

A – A antigens on RBCs and antibodies to B present

B – B antigens and antibodies to A present

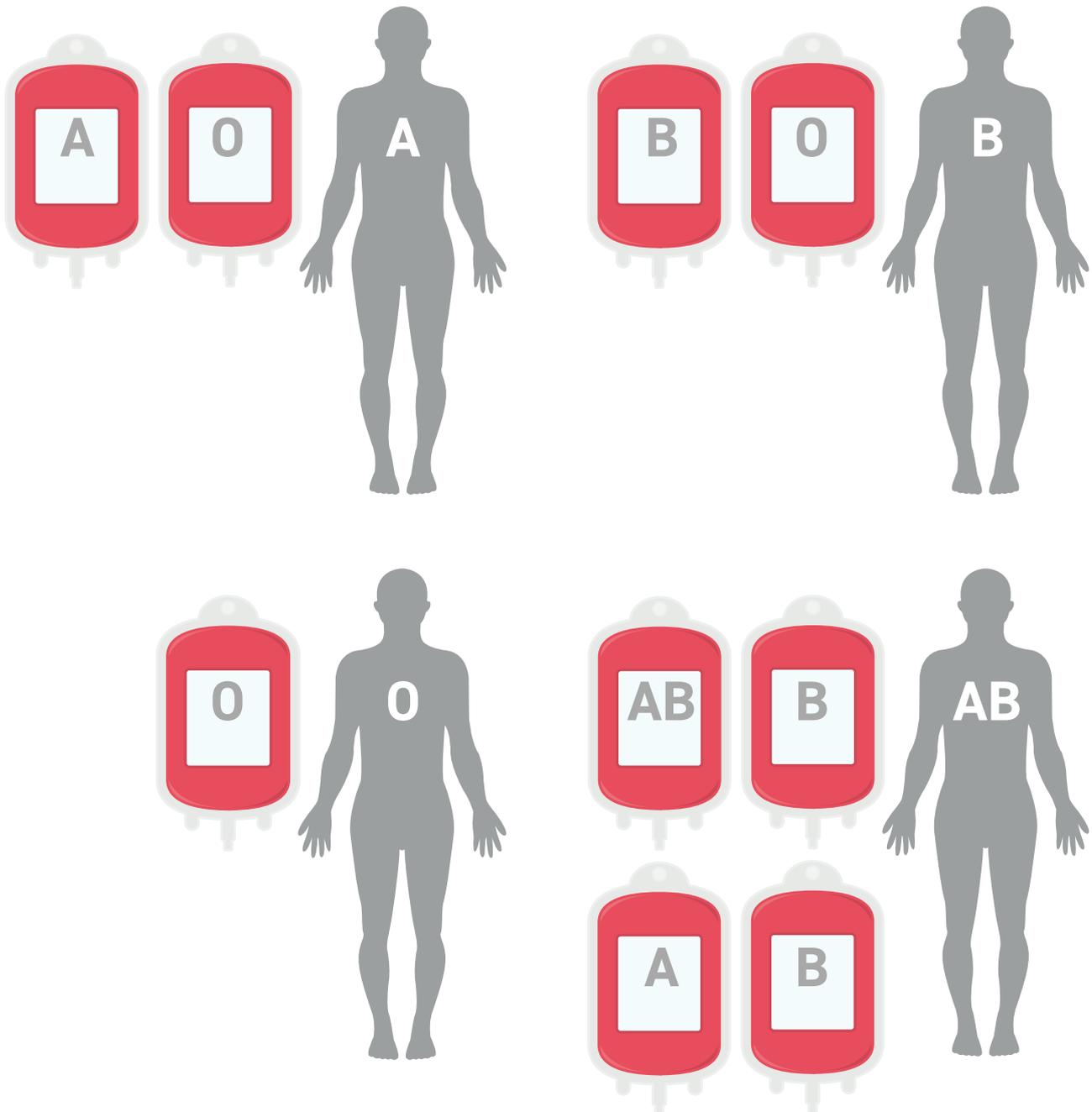
AB – A and B antigens on RBCs and no antibodies

O – no antigens are present on the surface of RBCs. Antibodies to both A and B are present.

ABO BLOOD GROUP SYSTEM				
GROUP	A	B	AB	O
RED BLOOD CELL TYPE				
ANTIGENS PRESENT	 ANTIGEN A	 ANTIGEN B	 ANTIGEN A&B	NONE
ANTIBODIES PRESENT	 ANTI-B	 ANTI-A	NONE	 ANTI-A&ANTI -B

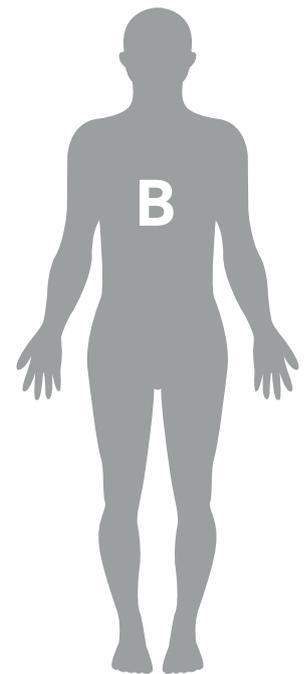
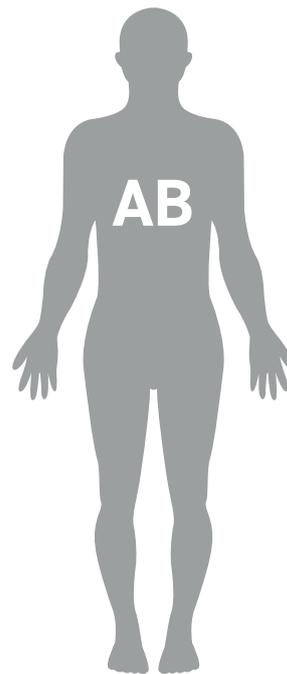
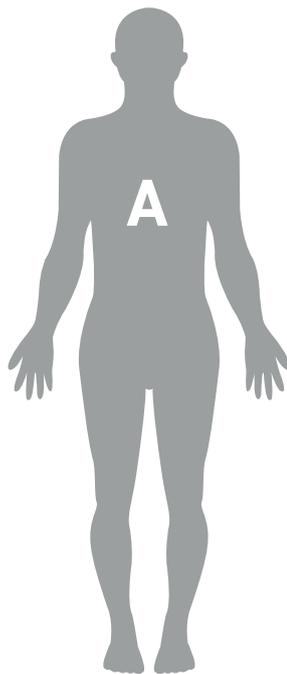
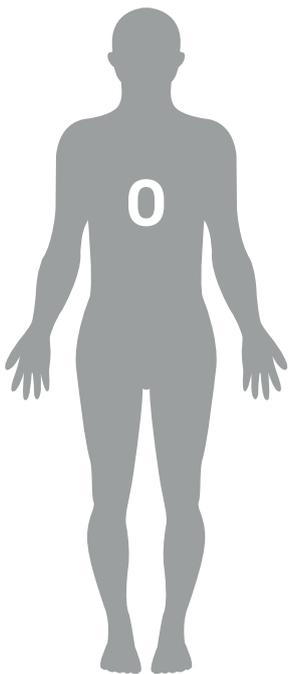
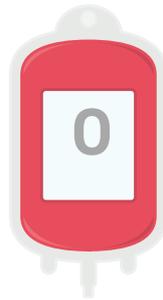
The antibodies mean that the bodies immune system will react to a certain antigen. For example blood type A has anti b antibodies therefore an immune system reaction will occur if B antigens around detected. This causes problems when giving patients blood transfusions.

What blood you can receive depends on what antibodies you have in your blood. If a blood type is given that your blood contains antibodies too it will cause a reaction that can be fatal.



QUESTIONS

1. Connect the blood bags to the patients lines that can receive that blood type. Hint: some might be able to receive more than one bag



2. Complete the Punnett square with the blood types of a blood type AB parent and an A parent.

	A	B
A		
A		

3. What as a percentage is the chance of the child with the parents in question 2 being AB?

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4. Which blood type is a universal donor (can give blood to anyone, no matter their blood type)?

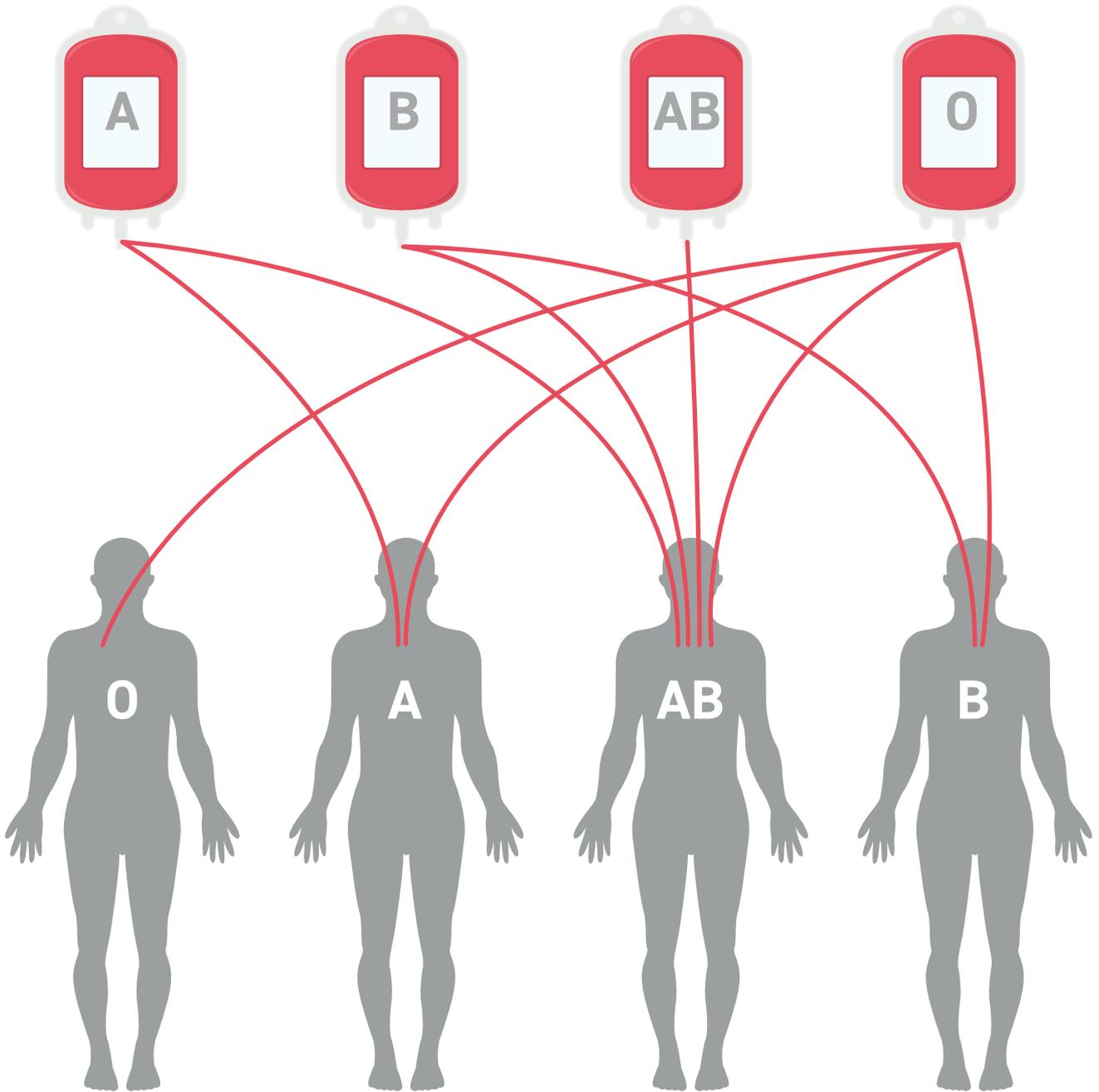
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5. What can happen if the wrong blood type is given to a patient?

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ANSWERS

1. Connect the blood bags to the patients lines that can receive that blood type. Hint: some might be able to receive more than one bag



2. Complete the Punnett square with the blood types of a blood type AB parent and an A parent.

	A	B
A	AA	AB
A	AA	AB

3. What as a percentage is the chance of the child with the parents in question 2 being AB?

50%

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4. Which blood type is a universal donor (can give blood to anyone, no matter their blood type)?

O

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5. What can happen if the wrong blood type is given to a patient?

The body produces an immune reaction that can be fatal

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