

Human blood types are determined by genes that follow the CODOMINANCE pattern of inheritance. There are two dominant alleles (I^A and I^B) and one recessive allele (i).

Blood Type (Phenotype)	Genotype	Can donate blood to:	Can receive blood from:
O	ii	A,B,AB and O (universal donor)	O
AB	$I^A I^B$	O, AB	A,B,AB and O (universal receiver)
A	$I^A I^A$ or $I^A i$	AB, A	O,A
B	$I^B I^B$ or $I^B i$	AB,B	O,B

1. Write the genotype for each person based on the description:
 - a. Homozygous for the "B" allele _____
 - b. Heterozygous for the "A" allele _____
 - c. Type O _____
 - d. Type "A" and had a type "O" parent _____
 - e. Type "AB" _____
 - f. Blood can be donated to anybody _____
 - g. Can only get blood from a type "O" donor _____

2. Pretend that Mr. Erythrocyte is homozygous for the type B allele, and Mrs. Erythrocyte is type "O."
What are all the possible blood types of their baby?

3. Draw a Punnett square showing all the possible blood types for the offspring produced by a type "O" mother and an a Type "AB" father