

RH Factor

Rhesus factors

→ Rh factor is an inherited protein found on the surface of the RBC. [DEPTH OF BIOLOGY]

• If your RBC's has the protein you are Rh positive.

• If your RBC's lacks the protein you are Rh negative.

Rh positive is the most common blood type.

→ In addition to 'A' and 'B' antigens there is this protein called 'Rh factor', this may or may not be present.



This leads to the creation of 8 most common blood types

$A^+, A^-, B^+, B^-, O^+, O^-, AB^+, AB^-$

→ Though Rh^+ is the most common blood type but Rh^- also does not affect the body's normal functioning.

Rh⁻ blood type is not an illness.

Rh factor in Pregnancy.

Pregnancy needs special care if you are Rh negative and your baby is Rh^+ due to the Rh^+ factor inherited from the father.

This will lead to the Rh Incompatibility.

[DEPTH OF BIOLOGY]

PARENT 1	AB	AB	AB	AB	B	A	A	O	O	O
PARENT 2	AB	B	A	O	B	B	A	B	A	O
Possible Blood Type of Child	O									
	A									
	B									
	AB									

Red blood drops are placed under the columns corresponding to the blood types of Parent 1 and Parent 2. Red blood drops are also placed under the columns corresponding to the blood types of the possible children.

[DEPTH OF BIOLOGY]

A baby can inherit the Rh factor from either parent.

But,

Rh Incompatibility happens only when mother is Rh⁻ and the father is Rh⁺.

[DEPTH OF BIOLOGY]

↓
Then the baby tends to have Rh⁺

why its done? why does complications happen in Pregnancy?

If small amount of your 'mother's' blood during the delivery or any abnormal trauma during Pregnancy

If you are Rh⁻ and baby is Rh⁺, the mother's body produce Proteins called Rhantibodies after the exposure to the baby's RBC.

[DEPTH OF BIOLOGY]

- * The antibodies produced as mentioned above aren't a problem during the first pregnancy. If your next baby is Rh positive, these Rh antibodies can cross the placenta and damage the baby's red blood cells.

↓

This could lead to life-threatening anaemia, a condition in which red blood cells are destroyed faster than the body's body can replace them.

Red blood cells are needed to carry oxygen throughout the body.

[DEPTH OF BIOLOGY]

↓

This may cause sickle-cell disease

♀ ♂	+	♀ ♂	→	♀ ♂
Rh ⁺		Rh ⁺		Rh ⁺
Rh ⁻	+	Rh ⁻	→	Rh ⁻
Rh ⁺	+	Rh ⁻	→	Rh ⁺
Parent		Parent		offspring.