

Bombay Blood Group

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Bombay Blood Group Latest News

Recently, in a rare and complex medical procedure, a 30-year-old woman with the extremely rare 'Bombay' (hh) blood group underwent a successful kidney transplant in India.

About Bombay Blood Group

- The Bombay, a.k.a. HH, blood group is a **rare blood group** first discovered in Mumbai in 1952 by Y.M. Bhende.
- The key differences between the Bombay blood group and the common ABO blood groups lie in the **presence (or absence) of the H antigen**, which is the fundamental building block for the ABO blood group system.
- **Why is it Rare?**
 - In normal individuals, the H antigen serves as the base structure for **building A and B antigens**. In Bombay blood group individuals, the **gene responsible for producing the H antigen is mutated or absent**, so neither A nor B antigens can be formed.

- Unlike common blood groups, people with this type lack the H antigen, making them **incompatible with all standard blood types**, including O-negative, complicating both transfusions and organ transplants.
- They can only receive blood from another Bombay blood group donor. Its prevalence is about 0.0004% (one in 4 million) of the total human population.
- While it drops to one in a million in the European population and one in 10,000 in Mumbai, the act of finding a donor is still daunting.

Bombay Blood Group FAQs

Q1: What is the difference between O and Bombay blood group?

Ans: Bombay blood group is a rare blood group in which there is the absence of H antigen and presence of anti-H antibodies. At the time of blood grouping, this blood group mimics O blood group due to the absence of H antigen, but it shows incompatibility with O group blood during cross matching.

Q2: What is the Bombay blood group defect?

Ans: Named for the city in which it was first discovered, the “Bombay phenotype” describes individuals whose RBCs lack the H antigen.

Q3: What is golden blood?

Ans: The rarest blood type in the world is known as “golden blood type”.

Source: **TH**

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