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1. Image used in the background of the article title – *Semal* in bloom. Credits: Dinesh Valke. URL: https://www.flickr.com/photos/dinesh_valke/425565846. License: CC-BY-SA.
2. Image of Babool bloom used on page 61 – *Acacia nilotica* flowers. Credits: TREEAID. URL: <https://www.flickr.com/photos/53871588@N05/5749766025>. License: CC-BY.

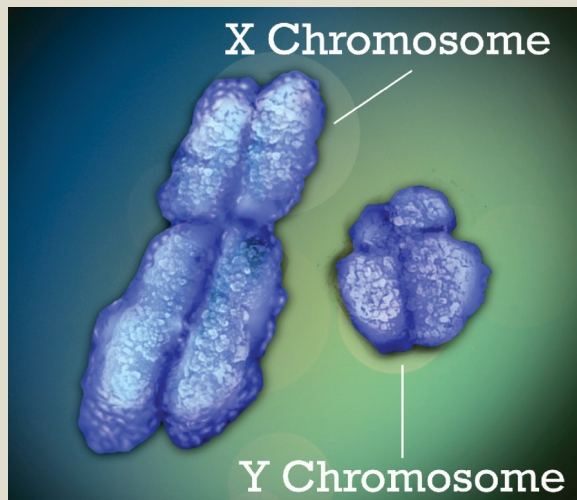
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WHERE DOES THE GIRL CHILD GET HER 'X' CHROMOSOMES FROM?



The human X and Y chromosomes determine the sex of an individual.

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In humans, females have 'X, X' sex chromosomes, and males have 'X, Y' sex chromosomes.

But where does a girl child receive her two 'X' chromosomes from?

- Her father receives his 'X' chromosome from his mother, because all females are 'X, X' and contribute one 'X' to each of their eggs, irrespective of whether the egg gives rise to a male or female child. Similarly, her father receives his 'Y' chromosome from his father.
- The X and Y chromosomes in the girl's father cannot recombine because, unlike autosomes, they are dissimilar. So the father passes on an unchanged copy of the 'X chromosome' he receives from his mother to his daughter.

Therefore, a girl child receives one 'X' chromosome from her mother, and the other 'X' chromosome from her paternal grandmother (through her father)!

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