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# Lyonization

National Human Genome Research Institute (NHGRI)

## Source

*National Human Genome Research Institute (NHGRI). [Lyonization](#).*

Lyonization is commonly known as X-inactivation. In mammals, males receive one copy of the X chromosome while females receive two copies. To prevent female cells from having twice as many gene products from the X chromosomes as males, one copy of the X chromosome in each female cell is inactivated. In placental mammals, the choice of which X chromosome is inactivated is random, whereas in marsupials it is always the paternal copy that is inactivated.