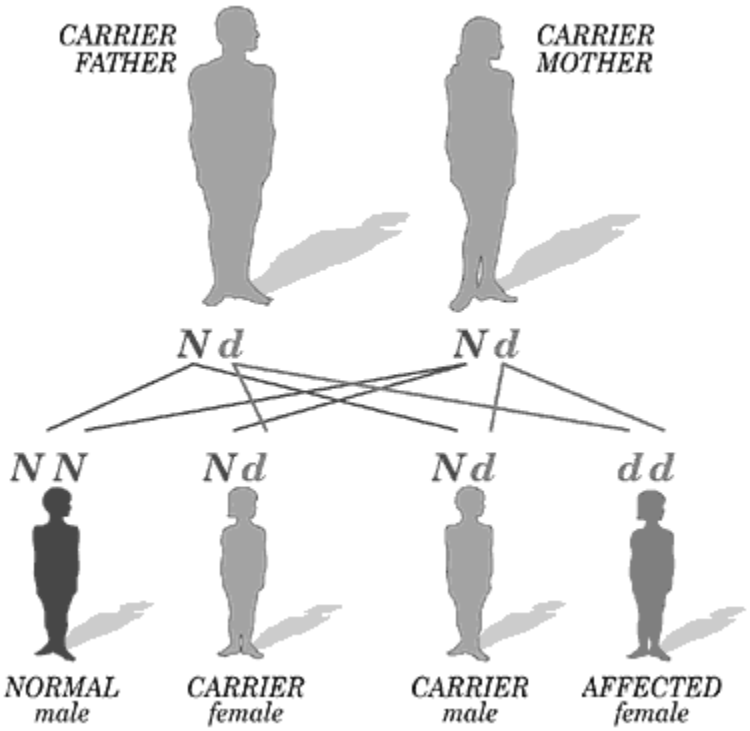
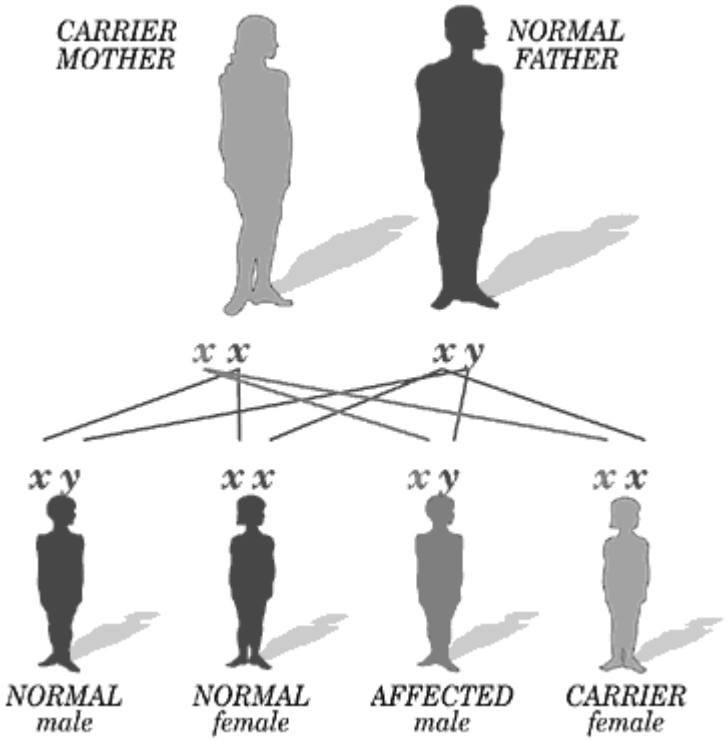
How Genetic Disorders are Inherited



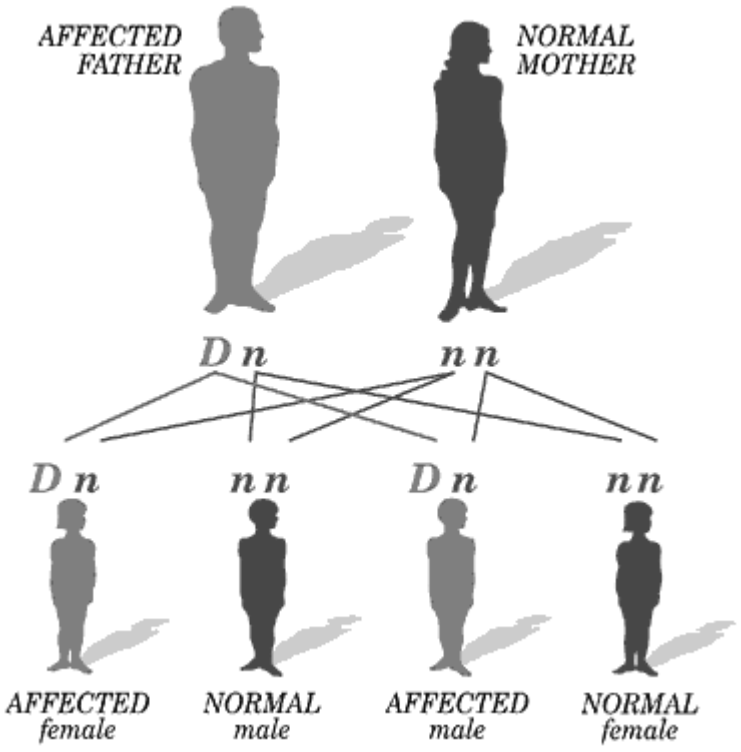
Recessive Disorders:
One Chance in Four

The affected parent has a single defective gene (D), which dominates its normal counterpart (n). Each child has a 50 percent risk of inheriting the faulty gene and the disorder.



Dominant Disorders:
Males Are at Risk

One normal copy (green x) of a gene on the X chromosome is generally sufficient for normal function. Women who have a defective gene (red x) on one of their two X chromosomes are protected by the normal copy of the same gene on the second chromosome. But men lack this protection, since they have one X and one Y chromosome. Each male child of a mother who carries the defect has a 50 percent risk of inheriting the faulty gene and the disorder. Each female child has a 50 percent chance of being a carrier like her mother.



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