

Guided Notes - Karyotypes

A karyotype is a picture of homologous chromosome pairs stained and arranged from largest to smallest of the autosomes. The sex chromosomes are last.

What does the picture show?

of Chromosomes
Sex of an individual
(female, male)

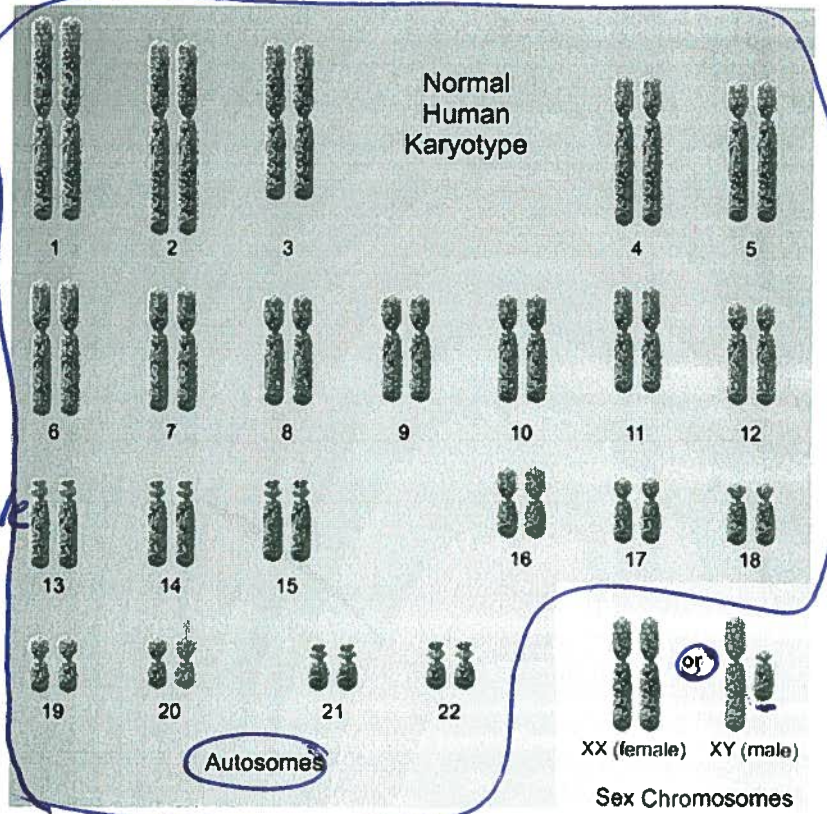
★ Could show extra or missing chromosomes.

A karyotype can identify the sex from the sex chromosomes. male/female

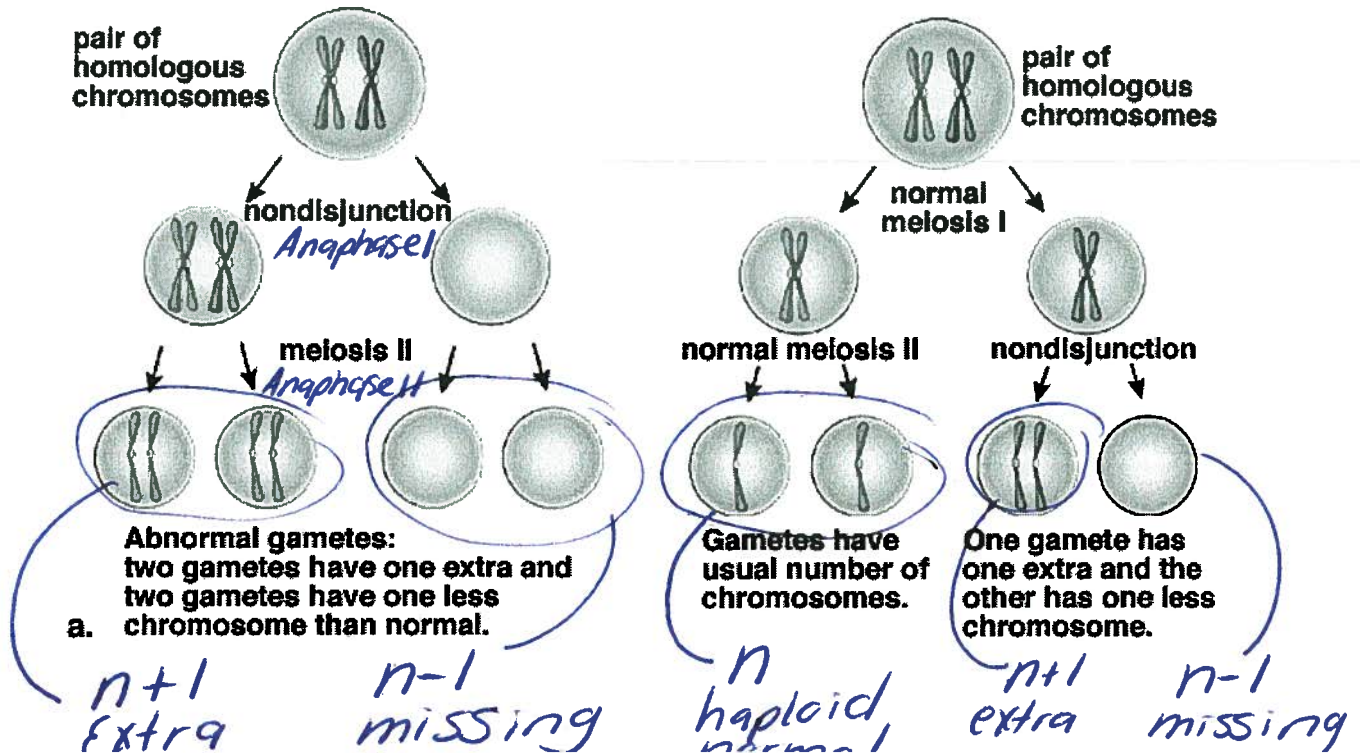
Humans should have 46 chromosomes, 23 pairs.

Extra or Missing? What happened?

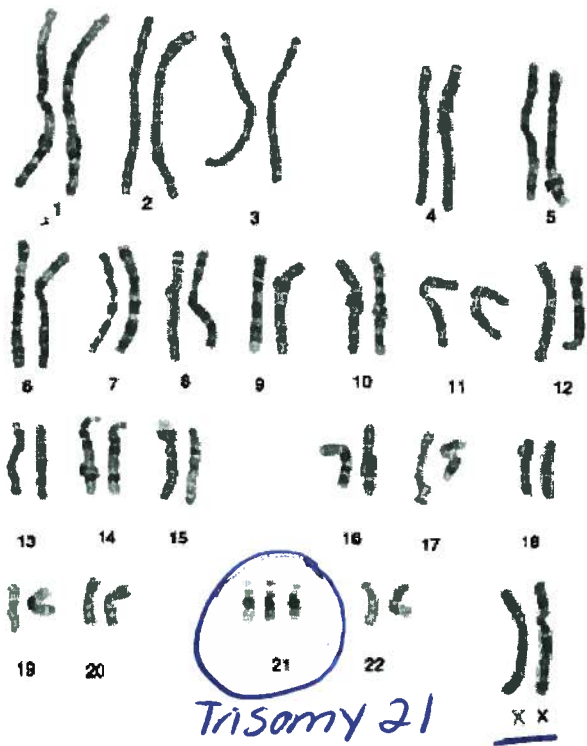
nondisjunction in meiosis



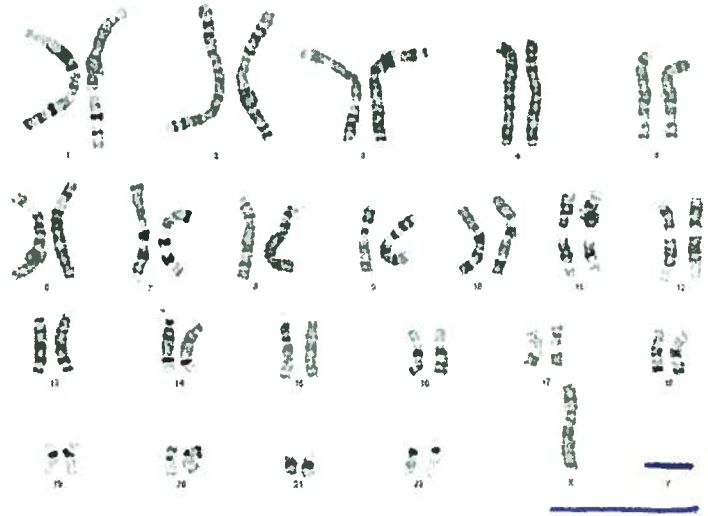
Nondisjunction of chromosomes during meiosis



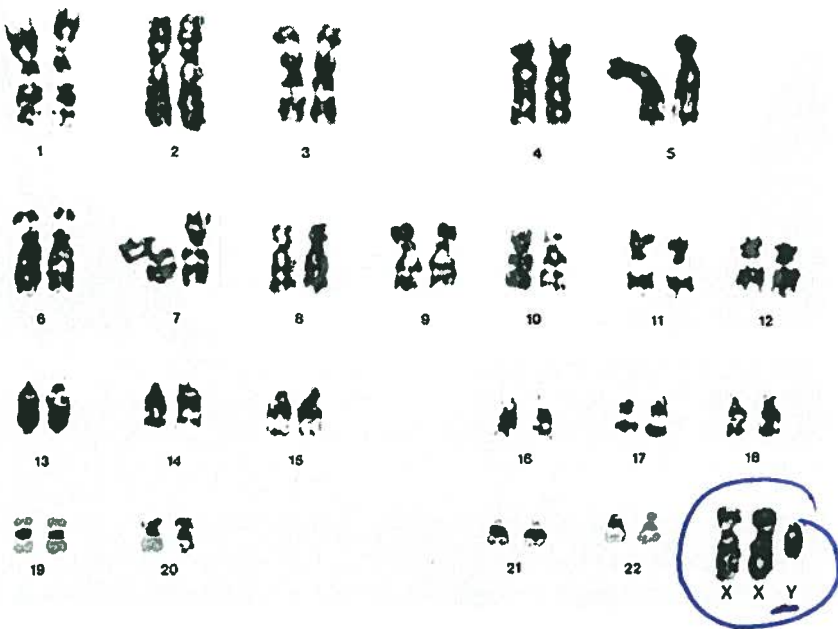
Examples of nondisjunction shown on a karyotype.



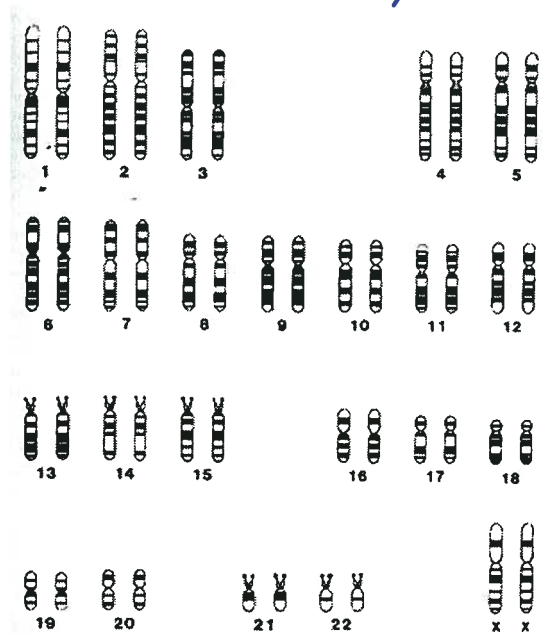
Female, 47, Downs Syndrome



Female, 45, Turner's Syndrome



Male, 47, Klinefelter's Syndrome



Female, 46, "Normal"