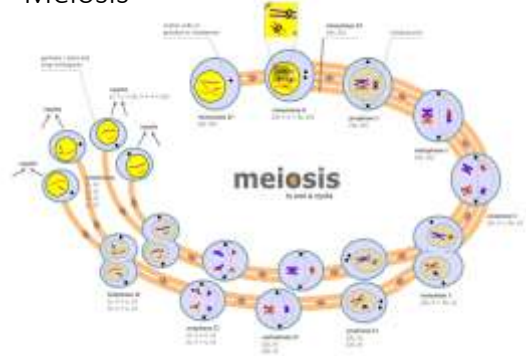


Meiosis Review

Meiosis



Human chromosome counts

22 pairs of AUTOSOMES
(NON-SEX CHROMOSOMES)

1 pair of SEX CHROMOSOMES

- XX = FEMALE
- XY = MALE

What is the total chromosome count in diploid cells?

What is the total chromosome count in haploid cells?

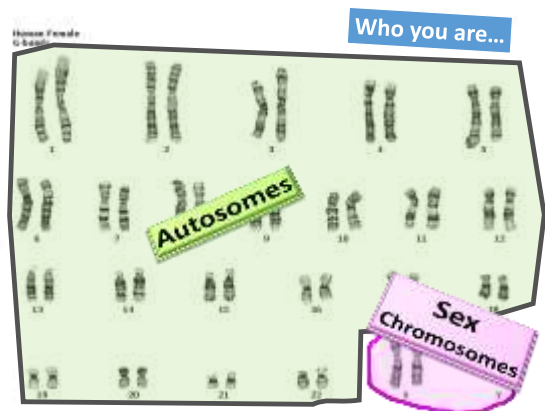
What if meiosis goes wrong?

Who is affected?

Why?

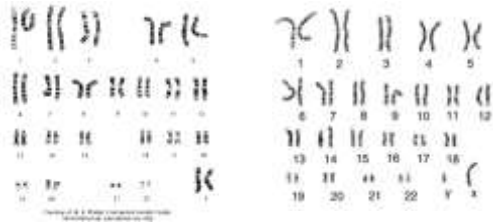
Nondisjunction

- Failure of chromosome pairs to separate properly during meiosis
- Homologous chromosomes or sister chromatids
- Autosomes or sex chromosomes
- Can be diagnosed using a karyotype



KARYOTYPE

Humans have 22 pairs of autosomes and 1 pair of sex chromosomes



Aneuploidy

- Abnormal number of chromosomes within a cell
- Can be more or less

Monosomy

- Missing one chromosome in a pair
- Turner's syndrome

Trisomy

- Three copies of one chromosome in a set
- Down's syndrome, Patau syndrome, Klinefelter's syndrome, Edward's syndrome