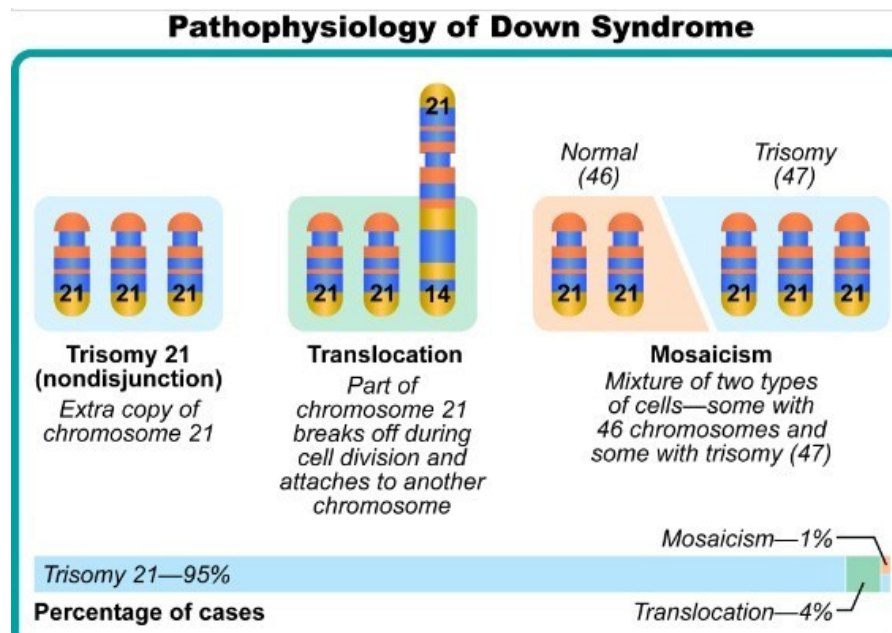


## Patho Quiz 2

### Down Syndrome

- A chromosomal genetic disorder that occurs in individuals with an extra copy of a chromosome from the 21<sup>st</sup> pair
- Causes: biological mother's ovum (egg), biological father's sperm, after fertilization
- Comorbid conditions: hearing loss, leukemia, sleep apnea, immune deficiency
- 3 types
  - Complete Trisomy 21
    - Nondisjunction
    - Extra copy of chromosome 21
    - Extra copy of chromosome alters how the fetus body and brain develop
    - Extra chromosome is present in all cells in the person's body
  - Translocation trisomy 21
    - Part of Extra chromosome breaks off during cell division and attaches, or translocates, to a different chromosome
    - Extra chromosome may be complete or partial and impacts the body and brain development
  - Mosaic trisomy 21
    - A combination of cells with three copies of chromosome 21 and the others with only two
    - Mixture of two types of cells – some with 46 chromosomes and some with trisomy (47)
    - Delayed development of fetus body and brain



- Clinical manifestations
  - Signs and symptoms