

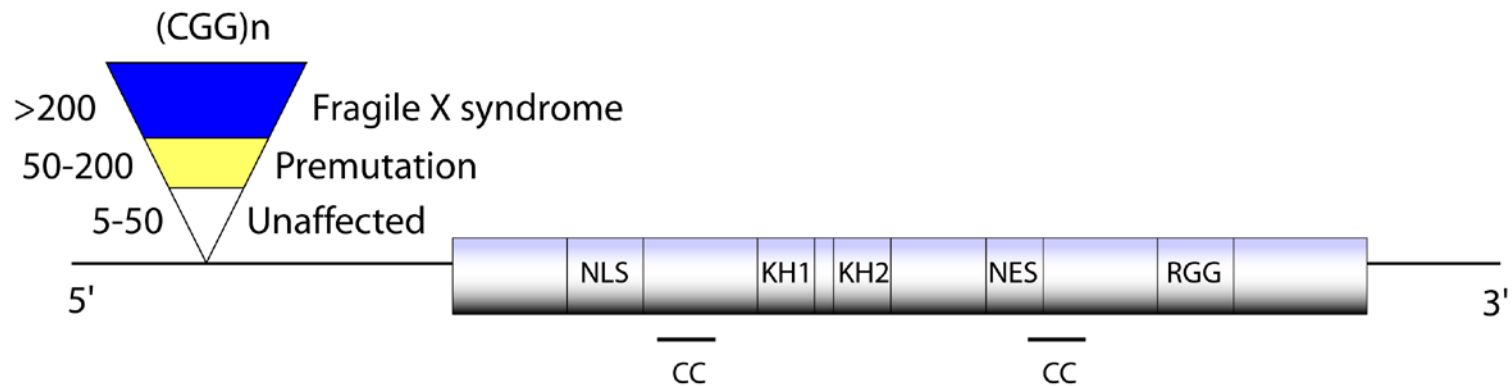
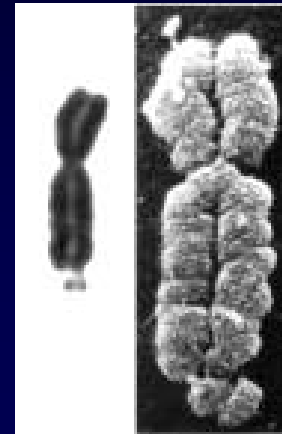
Fragile X Syndrome

- Moderate intellectual deficiency (ID)
- Relatively large cranium
- Large ears
- Long face, prominent jaw
- Hyperextensibility
- Macroorchidism: pubertal males

- Inheritance: X-linked, females can have ID
- Gene: FMR-1 (Xq27.3). Mutation is a CGG repeat. Affected individuals have >200 repeats.

Genetics of Fragile X Syndrome

- **Affects 1/2000 males**
- **X-linked, Xq27.3**
- **CGG repeat**
- **Normal 7-52**
- **Affected 230+**
- **Maternal expansion**





- Large ears may be seen
- Babies may appear normal
- Macro-orchidism after puberty
- Intellectual deficiency



Fragile X Syndrome in Adults

- May have relatively long face
- Ears may be prominent
- Testicles usually exceed 80-100 cc volume

