Comparison of characteristics of Hemophilia A and B

**Hemophilia A**
- **Prevalence**: 1:5,000 males
- **Mode of inheritance**: X-linked recessive
- **Clinical symptoms**: Joint bleeding, muscle hematoma, soft tissue bleeding
- **F8 gene defects reported in severe patients**
  - Large deletion (3%)
  - Split site (1%)
  - Intron 1 inversion (2%)
  - Missense (15%)
  - Nonsense (10%)
  - Intron 22 inversion (45%)
  - Small deletion/insertion (16%)
- **Characteristics of missing factors (FVIII)**
  - Function: Co-factor
  - Molecular weight: 280 kDa
  - Normal concentration in plasma: 5 µg/mL

**Hemophilia B**
- **Prevalence**: 1:30,000 males
- **Mode of inheritance**: X-linked recessive
- **Clinical symptoms**: Joint bleeding, muscle hematoma, soft tissue bleeding
- **F9 gene defects reported in severe patients**
  - Large deletion
  - Split site (7%)
  - Small deletion (10%)
  - Nonsense (18%)
  - Missense (58%)
- **Characteristics of missing clotting factor (FIX)**
  - Function: Enzyme
  - Molecular weight: 55 kDa
  - Normal concentration in plasma: 0.3–0.4 µg/mL

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