### Understanding Hemophilia A

Hemophilia A is typically an X-linked, inherited bleeding disorder caused by a deficient coagulation protein, factor VIII. It is caused by mutations in the F8 clotting factor gene.

#### Incidence/Prevalence:

Hemophilia A is the most common type of hemophilia disorder.

<table>
<thead>
<tr>
<th>Symptom</th>
<th>Prevalence</th>
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</thead>
<tbody>
<tr>
<td>Hemophilia A present in male births</td>
<td>~1 in 5,000</td>
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<tr>
<td>80-85% of total hemophilia population</td>
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<tr>
<td>Global population living with hemophilia A*</td>
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*Source: World Federation of Hemophilia

#### Symptoms and Primary Tissues/Organs Affectected:

Depending on severity, Hemophilia A can cause prolonged or spontaneous bleeding especially into the muscles and joints or internal organs.

Although any bleed can be serious, the severity and frequency depends on the baseline level of factor VIII protein present. In patients with severe disease, excessive bleeding can occur without a triggering injury. Untreated serious bleeds can lead to long-term irreversible damage or even death.

#### Genes/Gender

- **XY**: Father: without hemophilia
- **XX**: Mother: carries the gene
- **XY**: Son: without hemophilia
- **XX**: Daughter: carries the gene
- **XY**: Son: has hemophilia
- **XX**: Daughter: does not carry the gene

**The F8 gene is an X-linked recessive gene so the symptoms of hemophilia A occur mostly in males.**

#### Age of Onset/Diagnosis

Hemophilia A severity has traditionally been defined based on the residual amount of FVIII in the blood.

- > 5-40% = Mild
- 1-5% = Moderate
- < 1% = Severe

#### Current Standard of Care

Replacement of clotting factor through regular infusions.

#### Inhibitors: Complications with Current Standard of Care

Some people with Hemophilia A develop inhibitors, proteins in the blood that inactivate infused clotting factor, so bleeding episodes continue even with treatment.

- ~33% of people with severe Hemophilia A develop inhibitors.

#### Hemophilia A in History

- **1803**: A Philadelphia doctor identifies an inherited bleeding disorder primarily affecting men.
- **1947**: First laboratory distinction between hemophilia A and B.
- **1984**: The F8 gene was first cloned.

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#### Stay Informed. Stay Connected.

For information about gene therapy research for Hemophilia, check out [www.hemophiliaforward.com](http://www.hemophiliaforward.com)