**جامعـــــــــة المثنـــــــــى**

**كليــــــــــــــة التمريـــــــــــض**

**محاضــــرات**

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**Hemophilia**

**Hemophilia**

Hemophilia is a rare bleeding disorder in which the blood doesn't **clot** normally. If have hemophilia, may bleed for a longer time than others after an injury. also may bleed inside body (internally), especially in knees, ankles, and elbows. This bleeding can damage organs and tissues and may be life threatening.

Hemophilia usually is inherited. means that the disorder is **passed from parents to children through genes.**

People born with hemophilia have little or no clotting factor. Clotting factor is a protein needed for normal blood clotting. There are several types of clotting factors. These proteins work with platelets (PLATE-lets) to help the blood clot.

**Types of Hemophilia**

* Hemophilia A – Also called classic hemophilia, it is 4 times more common than hemophilia B, and it occurs when factor VIII levels are deficient.
* Hemophilia B – Also called Christmas disease, it occurs when factor IX levels are deficient.
* Hemophilia C – It occurs when factor XI levels are deficient
* Acquired hemophilia – A person can develop hemophilia as a result of illness, medications, or pregnancy. Acquired hemophilia is extremely rare and usually resolves itself with proper diagnosis and treatment.

## Severity of the Disorder

| **Severity / Hemophilia A and B** | **Range** |
| --- | --- |
| Normal factor levels | 50% – 150% |
| Mild hemophilia | 5% – 49% |
| Moderate hemophilia | 1%-5% |
| Severe hemophilia | Less than 1% |

## Symptoms of Hemophilia

A person with hemophilia can bleed inside or outside of the body. People with hemophilia do not bleed more than people without hemophilia, they just bleed longer. The most common types of bleeds are into the joints and muscles. Other symptoms include:

* Nose bleeds
* Prolonged bleeding from minor cuts
* Bleeding that stops and resumes after stopping for only a short time
* Blood in the urine
* Blood in the stool
* Large bruises
* Hematomas
* Easy bruising (unexplained bruising)
* Excessive bleeding with dental work or tooth extraction
* Heavy periods and/or periods lasting more than 7 days

Bleeding can occur on the body's surface (external bleeding) or inside the body (internal bleeding).

***Signs of external bleeding may include:***

* Bleeding in the mouth from a cut or bite or from cutting or losing a tooth
* Nosebleeds for no obvious reason
* Heavy bleeding from a minor cut
* Bleeding from a cut that resumes after stopping for a short time

***Signs of internal bleeding may include:***

* Blood in the urine (from bleeding in the kidneys or bladder)
* Blood in the stool (from bleeding in the intestines or stomach)
* Large bruises (from bleeding into the large muscles of the body)

## *Bleeding in the Joints*

Bleeding in the knees, elbows, or other joints is another common form of internal bleeding in people who have hemophilia. This bleeding can occur without obvious injury.

At first, the bleeding causes **tightness** in the joint with **no real pain** or any **visible signs of bleeding**. The joint then **becomes swollen**, **hot to touch**, and **painful** to **bend**.

Swelling continues as bleeding continues. Eventually, movement in the **joint is temporarily lost**. Pain can be severe. Joint bleeding that isn't treated quickly can damage the joint.

## *Bleeding in the Brain : The signs and symptoms of bleeding in the brain include:*

* Long-lasting, painful headaches or neck pain or stiffness
* Repeated vomiting
* Sleepiness or changes in behavior
* Sudden weakness or clumsiness of the arms or legs or problems walking
* Double vision

### Treatment for bleeding episodes

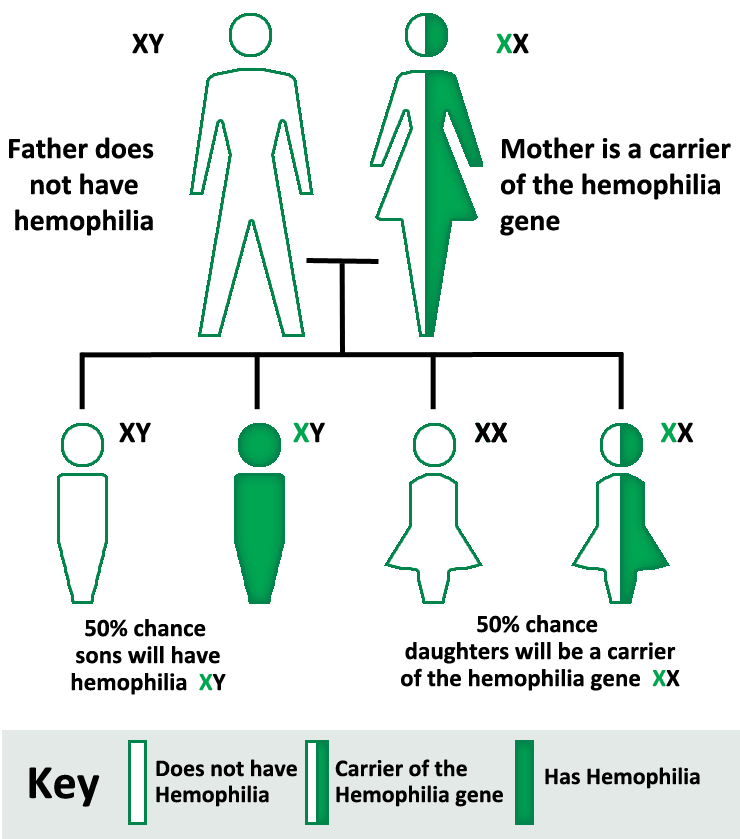
Therapies to stop bleeding depend on the type of hemophilia:

* **Mild hemophilia A.** Slow injection of the hormone desmopressin (DDAVP) into a vein can stimulate a release of more clotting factor to stop bleeding. Occasionally, DDAVP is given as a nasal medication.
* **Moderate to severe hemophilia A or hemophilia B.**Bleeding may stop only after an infusion of recombinant clotting factor or clotting factor derived from donated human blood. Repeated infusions may be needed if internal bleeding is severe.
* **Hemophilia C.** Clotting factor XI, the factor missing in this type of hemophilia, is available only in Europe. In the United States, plasma infusions are needed to stop bleeding episodes.

### Ongoing treatment

**Doctor may recommend:**

* **Regular infusions of DDAVP or clotting factor.** The infusions can help prevent bleeding. This approach may reduce time spent in the hospital and limit side effects such as damage to joints. doctor can show how to perform the infusions.
* **Clot-preserving medications (antifibrinolytics).** These medications help prevent clots from breaking down.
* **Fibrin sealants.** These medications can be applied directly to wound sites to promote clotting and healing. Fibrin sealants are especially useful in dental therapy.
* **Physical therapy.** It can ease signs and symptoms if internal bleeding has damaged your joints. If internal bleeding has caused severe damage, you may need surgery.
* **First aid for minor cuts.** Using pressure and a bandage will generally take care of the bleeding. For small areas of bleeding beneath the skin, use an ice pack. Ice pops can be used to slow down minor bleeding in the mouth.



* **Vaccinations.** Although blood products are screened,

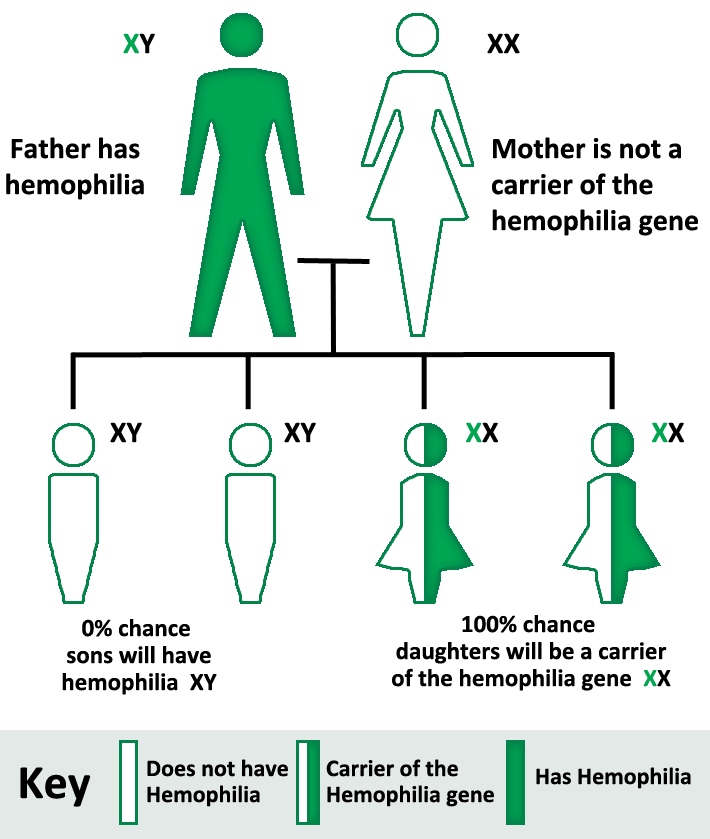
it's still possible for people who rely on them to

contract diseases. If you have hemophilia, consider

receiving immunization against hepatitis A and B.

## Mother is a carrier

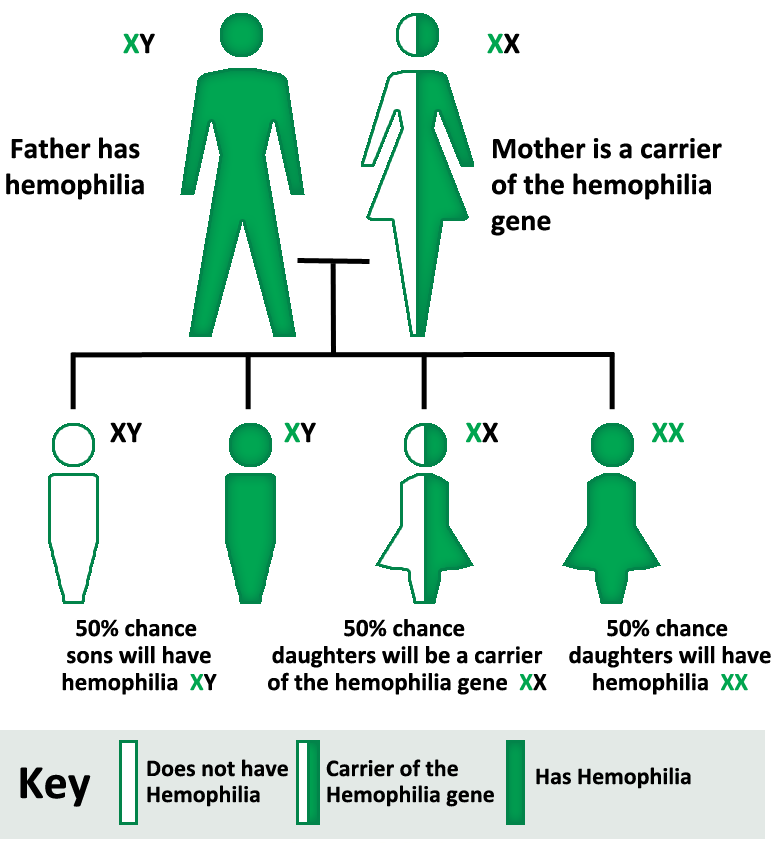
* 50% chance that each son will have hemophilia.
* 50% chance that each daughter will be a carrier



* of the hemophilia gene.

## Father has hemophilia

* All daughters will carry the hemophilia gene.
* No sons will have hemophilia.



## Mother is a carrier AND Father has hemophilia

* 50% chance that each son will have hemophilia.
* 50% chance that each daughter will be a carrier of the

hemophilia gene.

* 50% chance that each daughter will have hemophilia.