

# get to know hereditary angioedema (HAE)

## A closer look at some potential signs and symptoms

People with HAE have sudden attacks of swelling and pain, which may affect any part of the body. HAE symptoms vary greatly from person to person and can even change within the same person.

If you or someone you know has been diagnosed with HAE, it's hard to know what to expect. But the better informed you are about this unpredictable disease, the better you can manage it.

### throat

Swelling in the *throat*, or a laryngeal attack, happens less frequently than other attacks, but it is the most serious.

**Swelling in the throat can become life threatening because it can lead to suffocation. If you have an attack affecting your throat, seek emergency care right away.**

### abdomen

HAE attacks in the *abdomen* can cause mild to severe pain, as well as vomiting and/or diarrhoea.

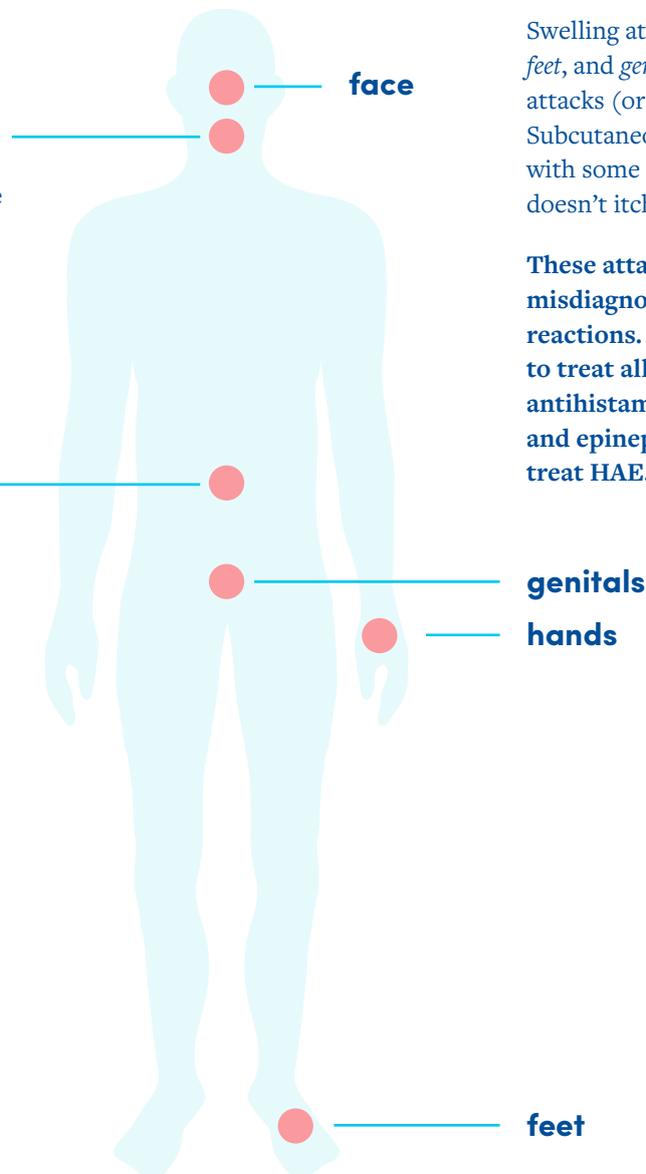
Abdominal attacks can also occur without visible swelling.

**When HAE is undiagnosed, abdominal attacks can be confused with other medical emergencies and lead to unnecessary surgical procedures.**

### other areas

Swelling attacks in the *face, hands, feet, and genitals* are types of skin attacks (or subcutaneous attacks). Subcutaneous swelling may appear with some redness, but it usually doesn't itch.

**These attacks are commonly misdiagnosed as allergic reactions. But medications used to treat allergic reactions—like antihistamines, glucocorticoids, and epinephrine—don't help treat HAE.**



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# do you know what type of HAE you have?

## There is more than 1 type of HAE

In fact, there are many. And while the signs and symptoms of the disease are similar, your type may impact how the disease is treated.

## HAE is caused by genetic mutation

There are more than 450 known genetic mutations associated with HAE, but it only takes one to cause the disease.

Most of these mutations affect a key protein in the body called C1 esterase inhibitor (C1-INH). This protein is responsible for controlling swelling in the body.

### Type 1 HAE

This is the most common type, accounting for about 85% of people with HAE. People with Type 1 HAE do not produce enough C1-INH.

### Type 2 HAE

About 15% of people with HAE have Type 2. In this case, people have enough C1-INH, but it does not work the way it should.

### Other types

C1-INH levels are normal in a very small number of people with HAE. This used to be called Type 3 HAE.

Now researchers know there are a number of potential mutations in people with normal C1-INH, and each of these may be associated with its own type.

**Learn more about what causes HAE at [knowHAE.com](https://www.knowHAE.com) and talk to your doctor about what type you have**