

Gilbert's syndrome

When functioning properly, the liver filters impurities and toxins from the body, processes proteins and carbohydrates, and breaks down fats using bile stored in the gall bladder.

In a person with Gilbert's syndrome, the liver is unable to consistently process the yellowish-brown pigment in bile, called bilirubin. This leads to high levels of bilirubin in the bloodstream, which can cause the skin and eyes to turn yellow (jaundice). Despite the person's jaundiced appearance, the functioning of their liver is normal.

Gilbert's syndrome is a common, mild disorder thought to be inherited in around half of all cases. Men are at higher risk than women, and tend to develop Gilbert's syndrome between their late teens and early 30s. Usually, the disorder is diagnosed by chance during the investigation of unrelated illnesses.

Gilbert's syndrome is considered a harmless condition and typically does not need treatment.

Symptoms of Gilbert's syndrome

Gilbert's syndrome typically has no obvious symptoms, other than yellowing of the skin or eyes (jaundice). Other symptoms are sometimes reported, including gastrointestinal complaints, fatigue, weakness or abdominal pain. However, it is not clear that these symptoms are directly related to higher levels of bilirubin.

Gilbert's syndrome is not related to viral hepatitis, which also causes jaundice. A person with Gilbert's syndrome has normal (straw-coloured) urine. A person with hepatitis will usually have dark urine and may also have a fever.

The processing of bilirubin

Bilirubin is the yellowish-brown pigment that gives bile its colour. It is created by the breakdown of old red blood cells by the spleen. The broken down cells are transported to the liver, where they undergo chemical changes and become the bilirubin in bile.

Bile is needed for the breakdown of fats in the intestine. The bacteria in the intestinal tract process the bilirubin further. Finally, bilirubin is excreted from the body and is responsible for the brown colour of faeces.

If a person has abnormally high amounts of bilirubin or some problem with the chemical conversion in their liver, there will be greater than normal levels of bilirubin circulating in their bloodstream. This can cause yellowing of the skin and eyes. In a person with Gilbert's syndrome, the bilirubin levels typically fluctuate and only sometimes hover within the normal range.

The cause is unknown

Gilbert's syndrome is believed to be due to the reduced activity of a particular enzyme. This makes the liver less capable of processing bilirubin. The cause of the poor enzyme function is unknown, but there is a family history in most cases. Therefore, Gilbert's syndrome is considered an inherited disorder.

Diagnosis of Gilbert's syndrome

In many cases, Gilbert's syndrome is so mild that there are no obvious symptoms. It is often diagnosed by accident when blood tests are ordered to investigate an unrelated condition. In other cases, Gilbert's syndrome may be accompanied by symptoms similar to more serious liver diseases, so thorough medical investigation is needed.

Diagnostic tests include:

- Medical history
- Physical examination
- Blood tests
- Urine tests.

A genetic test exists that can detect the gene that causes Gilbert's syndrome, but this is not usually necessary for a diagnosis and is not widely available.

Treatment is not necessary

Gilbert's syndrome is a mild disorder that typically doesn't need medical treatment. People with the disorder lead normal, healthy lives. There is no evidence to suggest that the condition is harmful or leads to more serious diseases. Medication is available that may lower bilirubin levels and reduce the jaundice if this becomes a problem.

Certain medications may be affected

Occasionally, the presence of Gilbert's syndrome may increase the toxicity of certain drugs used for therapy of severe disorders. These drugs include irinotecan (used in the treatment of cancer) and indinavir (used in the treatment of HIV/AIDS). There is no evidence that Gilbert's syndrome has any effect on most commonly used medicines. However, a patient with Gilbert's syndrome would be wise to seek further advice from their medical practitioner before starting a new medication.

Where to get help

- Your doctor
- Gastroenterologist

Things to remember

- Gilbert's syndrome is characterised by the liver's inability to process the yellowish-brown pigment in bile (bilirubin).
- Too much bilirubin can cause yellowing of the skin and eyes (jaundice).
- Gilbert's syndrome is considered harmless and typically doesn't need medical treatment.

This page has been produced in consultation with, and approved by:

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