

Glutamate dehydrogenase (GDH) positive - toxin negative



What is GDH?

GDH is the abbreviation for Glutamate dehydrogenase, which is a chemical found in *Clostridioides difficile*.

Clostridioides difficile is commonly called *C. diff*. This is a type of bacteria (germ), which may be passed from person to person, and is found in the intestines (gut) of both healthy and sick people. It:

- may cause diarrhoea and sometimes more serious intestinal conditions such as colitis (inflammation of the bowel)
- can be difficult to remove from the environment.

The Department of Health has recommended a two stage testing process to identify whether:

1. You have *Clostridioides difficile* in your bowel
2. *Clostridioides difficile* is causing you an infection.

The test for GDH on stool samples is an initial screening test to detect the presence of the chemical. If it is found, the result is termed 'GDH positive' which means *C. diff* is present in your bowel this means you are a carrier of the *C. diff* bug, but it does NOT mean you have a *C. diff* infection.

What does a GDH positive result mean for me?

If the result is GDH positive, a second test is performed to look for toxins that are produced when *C. diff* is causing an infection.

If the second test shows you do not have toxins present, this means you do not have a *C. diff* infection, but you carry the *C. diff* bacteria in your bowel. This means you are 'GDH positive – toxin negative'.

How can I protect others and myself?

How is it treated?

- Any antibiotics and Proton Pump Inhibitors (PPI) currently prescribed will be reviewed, as they may cause the *C. diff* bacteria to start producing toxins
- The majority of patients do not require treatment for a GDH positive result. However, if there are very severe symptoms or symptoms get worse, your doctor may decide to give you treatment

- It is important to tell staff each time you have diarrhoea as this will help them to monitor your condition.

Do:

- wash your hands regularly using soap and water since alcohol rubs do not kill the *Clostridioides difficile* bacteria
- stay at home until at least 72 hours after your diarrhoea stops
- clean the toilet and area around it with disinfectant after each use
- wash clothes and sheets with faeces on separately from other washing at the highest possible temperature.

Don't:

- share towels and flannels
- take medicine to stop diarrhoea like loperamide because it can prevent the infection being cleared from your body.

How can healthcare staff prevent the spread of infection?

- Staff will wear disposable gloves and aprons whilst caring for patients with diarrhoea.
- Staff will wash their hands with soap and water and not use alcohol hand rubs.
- Cleaning of the environment will take place with a chlorine based detergent.

What happens when I get home?

If you are well, having a GDH positive result should not stop you from going home.

It is important you tell your GP or healthcare provider of the GDH positive result when you see them in the future, especially if you receive antibiotic treatment.

Where can I get further information?

The Public Health England web site at:

www.gov.uk/government/organisations/public-health-england

The Infection Prevention and Control Team at the Royal Cornwall Hospital
Telephone: 01872 254969

If you would like this leaflet in large print, braille, audio version or in another language, please contact the General Office on 01872 252690

