Clostridium difficile
GDH positive - toxin negative

What is Clostridium difficile?
Clostridium difficile (commonly called C.diff) is a bacteria present in the bowel of approximately 3% of healthy adults. It rarely causes problems as it is kept under control by the normal bacteria in the bowel. However, when antibiotics are given, the balance of bacteria in the bowel can sometimes be disturbed causing the C.diff to multiply rapidly.

What is GDH?
GDH is the abbreviation for Glutamate dehydrogenase, which is a chemical found in C.diff.

The Department of Health has recommended a 2 stage testing process to identify:

1. whether you have C.diff in your bowel and
2. whether it 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 the chemical is found, the result is termed ‘GDH positive’ which means C.diff is present in the bowel.

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 actually causing an infection.

If the second stage of the testing shows that you do not have the toxins present, this means you do not have a C.diff infection, but that you carry the C.diff bacteria in your bowel.

The diarrhoea you are experiencing is probably due to other causes, eg. antibiotics; however, if the diarrhoea continues, further samples may need to be tested.

What happens next?
Once the GDH positive result has been identified, your doctor will review your medication and make any necessary changes, especially to antibiotics as they may cause the C.diff bacteria to start producing toxins.

The majority of patients do not require treatment due to a GDH positive result. However, if your symptoms are very severe your doctor may decide to give you treatment.

It is important to drink plenty whilst you have diarrhoea to stop yourself becoming dehydrated.
Infection control precautions
Although you have not got a C.diff infection it is still possible for the bacteria present in your bowel to spread from person to person. This is because the bacteria from the bowel can spread in the environment, contaminating flat surfaces, equipment, bathrooms, toilets and shower facilities, etc. This is more of a risk whilst suffering from diarrhoea.

To avoid the spread of the bacteria, strict hygiene measures and thorough cleaning is essential.

Washing your hands using soap and water is extremely important. Alcohol hand sanitiser is not effective at killing the C.diff bacteria.

Healthcare workers will wash their hands after treating or caring for every patient affected with diarrhoea. Patients should wash their hands with soap and water after using the toilet, before preparing food and before eating. To avoid the spread of infection staff caring for the patient will wear an apron and gloves.

In hospital, patients who are GDH positive and have diarrhoea will be cared for in a single room, with either en-suite facilities or their own nominated toilet or commode.

Patients are required to remain in the single room until they have passed normal stools for 72 hours.

How can my family and friends protect themselves when visiting?

- Hands must be washed with soap and water when leaving the single room.
- Wash hands with soap and water after using the toilet, before eating and before preparing food.
- Visitors do not need to wear gloves and aprons when visiting unless providing direct care to the patient.
- Visitors should not visit if they are unwell or have recently had diarrhoea.
- Avoid sitting on hospital beds when visiting.
- Observe any restrictions that are in place as these help us to make sure the ward is cleaned thoroughly throughout the day.
- Do not bring in food to eat whilst visiting.

What precautions are needed at home?
If you are well, having a GDH positive result will 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.

We will also tell your GP about your GDH positive result.
General good hygiene precautions
It is sensible to maintain the following good hygiene practices whilst at home, even if you do not have an infection.

- Wash your hands with soap and water after using the toilet, before preparing food and before eating.
- Keep bathrooms, showers and toilets, including taps, toilet doors, toilet flush handles etc. clean.
- The toilet seat/cover should be put down before flushing to reduce the amount of contamination in the room.
- Do not share personal hygiene items, such as toothbrushes and towels with other family members.

Special precautions
The following precautions should be followed whilst you have diarrhoea and until you have passed a stool that is normal for you for 3 consecutive days.

- Bathrooms, showers and toilets should be cleaned using a bleach-based cleaner. Disposable paper towels/wipes should ideally be used. If this is not possible a separate cloth should be used for the toilet area, this should not be used anywhere else in your home.
- If possible do not leave toothbrushes, toothpaste, flannels, soap etc. near to the toilet.
- Clothes should be washed at as high a temperature as possible, according to the manufacturer’s instructions and either tumble dried or ironed. Ideally, your clothes should not be washed with other family members clothes.
- There is no need to restrict family and friends visiting whilst you recover. Encouraging them to follow good hygiene practices, including washing hands with soap and water, will reduce risks to them.

Useful contacts

NHS Choices [www.nhs.uk](http://www.nhs.uk)