



Manchester University  
NHS Foundation Trust

**Manchester Royal Infirmary**  
Gastrointestinal (GI) Investigations Unit

# Lactose Breath Test for Lactose Intolerance

Information For Patients



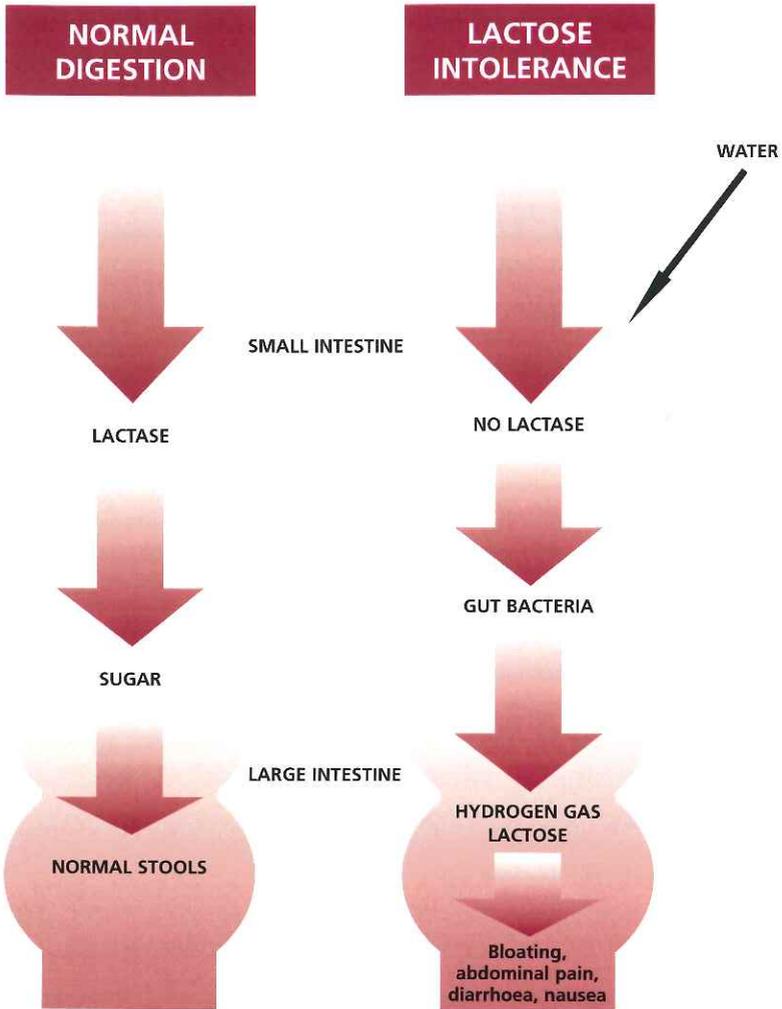
## Introduction

You have been referred by your General Practitioner (GP) or your hospital consultant to our department for a lactose breath test.

A breath test is a safe, painless and non-invasive procedure to investigate lactose intolerance.

## What is lactose intolerance?

- Lactose is a sugar that is found in milk or milk containing products e.g. cheese, butter or cream.
- Normally the body produces an enzyme called Lactase that helps break down lactose into smaller pieces so that it is easier to digest in the small intestine.
- However if you are lactose intolerant, your body does not make enough of the Lactase enzyme to break down milk or milk containing foods.
- This results in lactose reaching the large bowel where there are natural gut bacteria. These bacteria then attempt to break down the lactose.
- However, as they are not designed to break down lactose properly, they produce lots of hydrogen gas and leave some lactose behind.
- This results in symptoms such as bloating, pain, diarrhoea and nausea.



## How do we test for Lactose intolerance?

Healthy people who have fasted and followed a 2 day low fibre diet normally do not produce hydrogen gas (H<sub>2</sub>) mixed in with their breath. Lactose is used to test for lactose intolerance. Normally lactose is broken down by lactase, absorbed by the small bowel and does not reach the large bowel where bacteria normally live. If you are lactose intolerant, the bacteria will attempt to digest this sugar and produce hydrogen gas (H<sub>2</sub>) as

a by-product. The resulting hydrogen gas (H<sub>2</sub>) is then absorbed into the blood stream and expelled by the lungs. Breath samples are taken at regular intervals using a breath analyser to measure the hydrogen gas (H<sub>2</sub>) content.

## What to do before your test

1. Please contact us immediately if you:
  - a. Have Diabetes.
  - b. Have taken any antibiotics in the last 4 weeks (for any reason).
  - c. Had an endoscopy looking into your large bowel (Colonoscopy), within the last 4 weeks.
  - d. Had a Barium Follow Through investigation within the last 4 weeks.
  - e. Had a Nuclear Medicine appointment within the last 4 weeks.
  - f. Had any investigation where you needed to have bowel preparation e.g. Moviprep, Picolax beforehand in the last 4 weeks.
  - g. Are taking laxatives.
2. Two days (48 hours) before your appointment please:
  - a. Stop any of the following medication: Zomorph, Sodium Docusate, Motilium, Domperidone, Metoclopramide, Loperamide, Imodium, Fybogel and Senna. You can take paracetamol, ibuprofen or co-codamol (if prescribed) to manage pain.
  - b. Please do not eat or drink any High Fibre foods, but choose Low Fibre foods from the allowable foods list.
  - c. Please complete fully the enclosed diary. Recording any foods eaten, drinks drunk, cigarettes smoked or medication taken, and any bowel movements.

3. If your appointment is in the morning please fast (No food or drink) from 6.00 pm the day before.

**OR**

4. If you have an afternoon appointment please fast (No food or drink) from midnight the day before.
5. The morning of the test:
  - a. Please brush your teeth and rinse mouth out but do not swallow any toothpaste etc.
  - b. Please do not smoke or passively smoke.
  - c. Please do not chew gum including nicotine gum.
  - d. Please do not eat/suck sweets.
6. Please arrive 10 minutes before your appointment time and please do not forget to bring your completed diary.

### **What does the test involve?**

On arrival into our department you will be:

- a. Greeted by a member of staff
- b. Directed to a clinic room where you will be asked some basic health questions
- c. Instructed on how to use the breath analyser (Gastrolyser) to take breath samples

**During the test you will be:**

- d. Asked to give 2 baseline breath samples
- e. Given a lactose drink (lactose sugar mixed in water)
- f. Asked to take breath samples at regular intervals for 2 hours

## What happens next?

When you have completed the breath test, the result will be sent to the referring doctor.

- If the test is positive and you are lactose intolerant, your doctor will refer you to a dietitian. We will also give you a leaflet explaining a low lactose diet that should help reduce your symptoms.
- If the test is negative and everything is normal, you will be referred back to your doctor.



Picture of Gastrolyser used to measure hydrogen (H<sub>2</sub>) levels in breath

## Any questions?

If you have any questions please contact us using the details below. Thank you for reading this leaflet. We will see you on the day of your appointment

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You can read more about this test at the following website:  
[www.nhs.uk/conditions/lactose-intolerance/pages/introduction.aspx](http://www.nhs.uk/conditions/lactose-intolerance/pages/introduction.aspx)

## No Smoking Policy

Please protect our patients, visitors and staff by adhering to our no smoking policy. Smoking is not permitted in any of our hospital buildings or grounds, except in the dedicated smoking shelters in the grounds of our Hospital site.

For advice and support on how to give up smoking, go to [www.nhs.uk/smokefree](http://www.nhs.uk/smokefree).

## Translation and Interpretation Service

It is our policy that family, relatives or friends cannot interpret for patients. Should you require an interpreter ask a member of staff to arrange it for you.

تتص سیاستا علی عدم السماح لافراد عائلة المرضى او اقاربهم او اصدقائهم بالترجمة لهم. اذا احتجت الى مترجم فيرجى ان تطلب ذلك من احد العاملين ليرتب لك ذلك.

بماری یہ پالیسی ہے کہ خاندان، رشتہ دار اور دوست مریضوں کے لئے ترجمہ نہیں کر سکتے۔ اگر آپ کو مترجم کی ضرورت ہے تو عملے کے کسی رکن سے کہیں کہ وہ آپ کے لئے اس کا بندوبست کر دے۔

ইহা আমাদের নীতি যে, একজন রোগীর জন্য তার পরিবারের সদস্য, আত্মীয় বা কোন বন্ধু অনুবাদক হতে পারবেন না। আপনার একজন অনুবাদকের প্রয়োজন হলে তা একজন কর্মচারীকে জানান অনুবাদকের ব্যবস্থা করার জন্য।

Nasze zasady nie pozwalają na korzystanie z pomocy członków rodzin pacjentów, ich przyjaciół lub ich krewnych jako tłumaczy. Jeśli potrzebują Państwo tłumacza, prosimy o kontakt z członkiem personelu, który zorganizuje go dla Państwa.

Waa nidaamkeena in qoys, qaraaboamasaaxiiboaysanu tarjumikarinbukaanka. Haddiiaad u baahatotarjumaankacodsoxubinka mid ah shaqaalahainaykuusameeyaan.

我们的方针是，家属，亲戚和朋友不能为病人做口译。如果您需要口译员，请叫员工给您安排。



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