

Making a decision about gallstones

What is this leaflet?

This leaflet is for people with **gallstones**. It can help you decide whether you want treatment and which treatment to choose. You should go through it and then talk to your healthcare professional. There are some parts you can fill in to prepare for your next appointment.

Pages **1 – 5**
are about **gallstones**

Pages **6 – 10**
are about **treatments**

Pages **5 & 11**
are for you to **fill in**

Page **11** is for use with your **doctor / GP**

What is a gallbladder and what are gallstones?

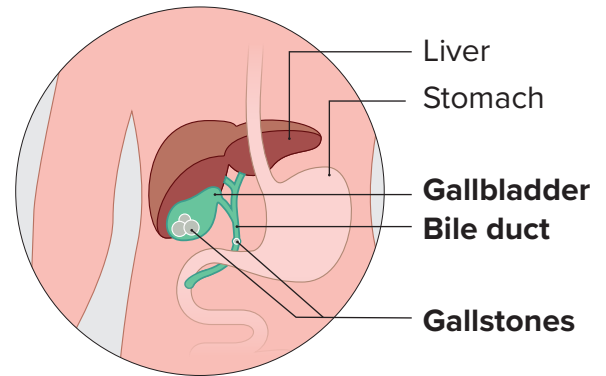
The **gallbladder** is a small bag that stores and releases bile.

Bile is a liquid that helps digest fatty foods. It is made by the liver. When we eat, the gallbladder squeezes to release bile into the intestines (gut), which then mixes with food. If the gallbladder is removed, bile goes directly from the liver into the intestines.

Gallstones are small stones made of cholesterol and bile. They form in the gallbladder. They can take many years to form. They can be there for many years without ever causing symptoms or pain.

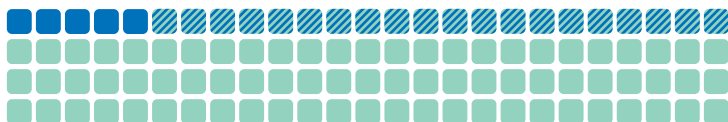
Gallstones can cause **pain** if they:

- irritate the gallbladder and it becomes inflamed
- move and block the flow of bile
- move into the bile duct



How common are gallstones in the UK?

Between **5 and 25** out of every **100** people have gallstones **75 – 95** do not.



What are the treatments for gallstone pain?

Do nothing



Things I can do myself
(diet & being a healthy weight)



Medicines



Surgery



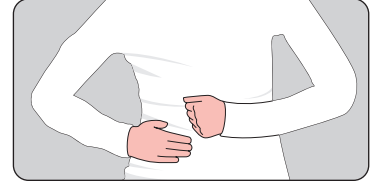
Which treatment is best for you will depend on your situation and how your symptoms are affecting your life.

2 About symptoms of gallstones

What are the symptoms of gallstones?

Sometimes gallstones cause mild symptoms

- Discomfort in the abdomen.
- Feeling of heaviness under the ribs on the right hand side.
- Bloating.

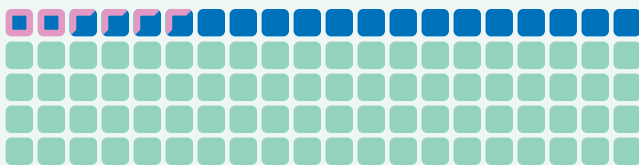


Sometimes gallstones cause sudden attacks of pain. This is called biliary colic

- You might have sudden severe pain in the abdomen.
- Pain might spread from the right hand side of your abdomen (tummy) to your back or shoulder.
- Pain might feel like it is stabbing from your abdomen to your back.
- Pain often comes in waves of intensity. This is because the gallbladder is contracting (squeezing) against the stones.
- Pain might happen after eating because the gallbladder and duct contract (squeeze) to release bile.
- Pain can be constant and not relieved by going to the toilet, passing wind or being sick.
- Pain usually lasts for about 30 minutes.

Sometimes gallstones cause serious conditions that need urgent treatment

- **Cholecystitis** (Inflammation of the gallbladder).
- **Pancreatitis** (Inflammation of the pancreas).
- **Cholangitis** (Stones get stuck in the bile duct and become infected).



Around **20** out of every **100** people with gallstones will have **painful symptoms**, **80** do not.

2 – 6 will develop a serious condition within **5** years needing **urgent medical treatment**.

Gallstones are often found when you are having a scan for something else. They do not always cause pain. If you have not had symptoms for 5 years it is less likely that you will ever get pain from your gallstones. If you have symptoms, they usually go away when the gallstones are removed.

When to get urgent medical help (visit A&E or call 111)

- You feel unwell with a **high temperature, chills and jaundice** (the whites of your eyes and skin look yellow) and might be **sick** (vomit).
- You feel unwell with **pain in the upper right hand side of your abdomen** and you have a **fever**.
- You have **pain that is so intense** you can not find a position to make it better, or pain that does not go away with normal pain relief.

3 More about gallstones

Gallstones are more likely in people who:

- are living with obesity (BMI over 30)
- are over 40 years old
- are female
- have a family member with gallstones
- use HRT or the combined oral contraceptive pill or are pregnant
- have had surgery to remove part of their bowel
- take certain medicines
- have Crohn's disease
- have diabetes
- have lost a lot of weight very quickly

Why do gallstones form?

We don't know exactly why gallstones form. Bile is made up of cholesterol, bilirubin and other substances. It is thought that if the liver makes too much of one of these substances then stones form.

What does bile do?

Bile helps digest what we eat. If you have your gallbladder removed, the liver will still make bile and you can still digest fats.

How many gallstones might I have?

Some people have just one gallstone, others can develop many. Treatment is the same if you have one or more than one.

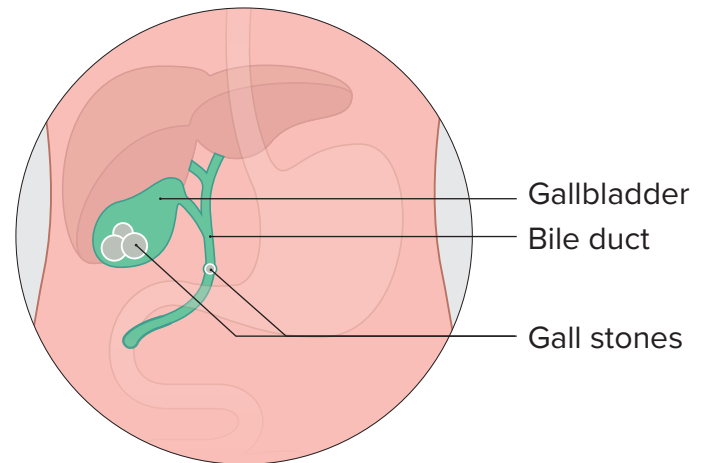
How big are they?

Stones can be as small as a grain of salt or sometimes even as big as a golf ball. Small stones can move and block the bile duct causing pain. Larger stones can cause problems and pain in the gallbladder itself.

How big is a gallbladder?

The gallbladder is about 7 – 15 cm long.

Gallstones can be in the gallbladder or they can move into the bile duct



How long does it take for gallstones to form?

It can take 10 – 20 years for gallstones to form. This is why they are more common in people over 40.

Will I make more gallstones if you remove these?

If you have your whole gallbladder removed it's unlikely you will make new gallstones.

If you have stones removed from your bile duct but your gallbladder is left intact, you may still have pain from stones in the gallbladder and they may get bigger. You might also develop new gallstones.

Can gallstones cause problems to other organs in the body?

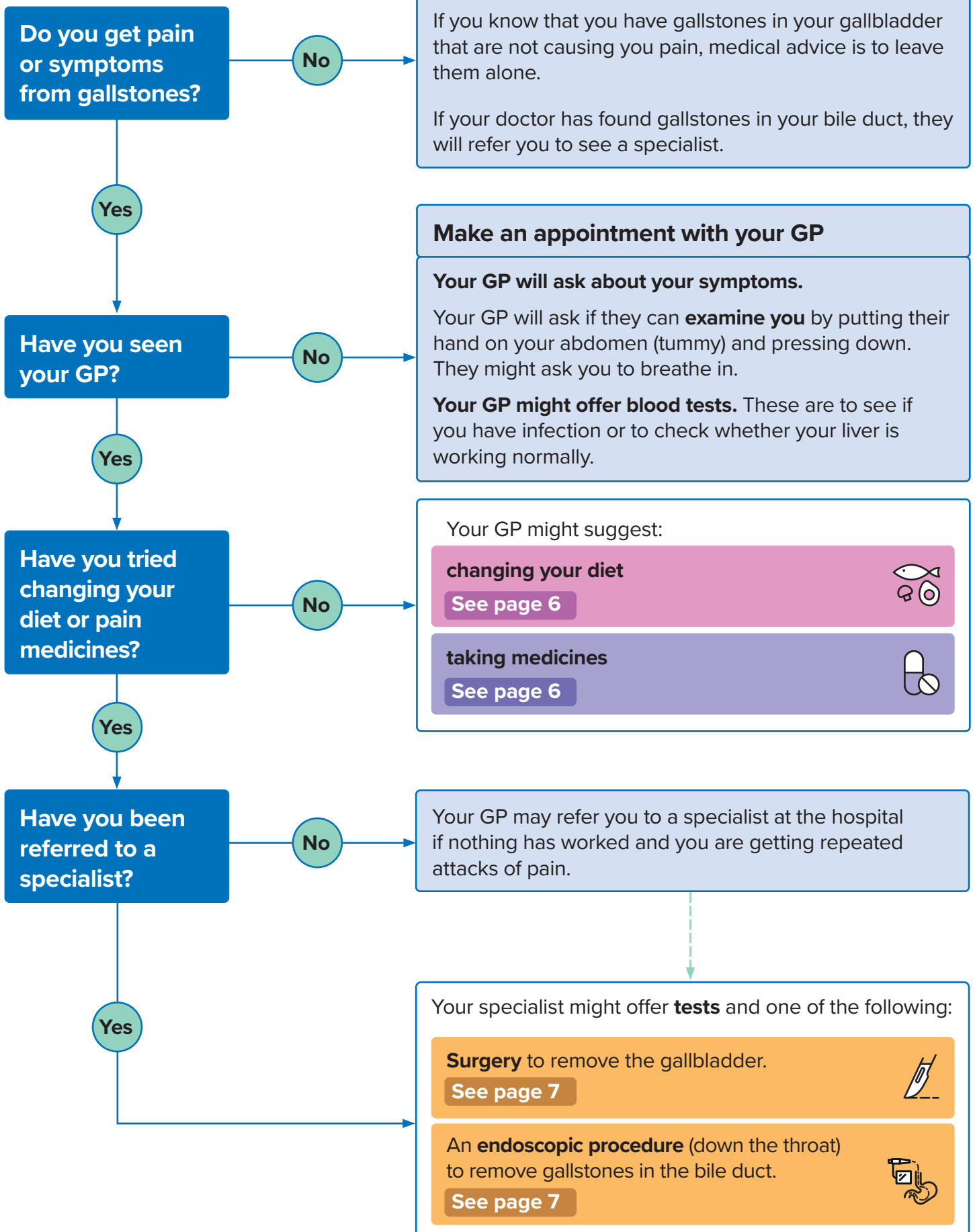
If they move from the gallbladder, they can:

- block the bile duct causing jaundice
- block the pancreas tube causing pancreatitis
- sometimes block the intestine

Can you 'zap' gallstones with ultrasound like kidney stones?

Gallstones and kidney stones are made up of different things. Kidney stones can sometimes break up with ultrasound but gallstones can not.

4 What can I do if I have gallstones?



5 How are gallstones affecting my life?

The treatment that is right for you depends on how your symptoms are affecting you.

You might want to use this page to write down what's important to you and then talk about your answers with your doctor.

Circle what you need help with



Pain



Sleep



Mental well-being

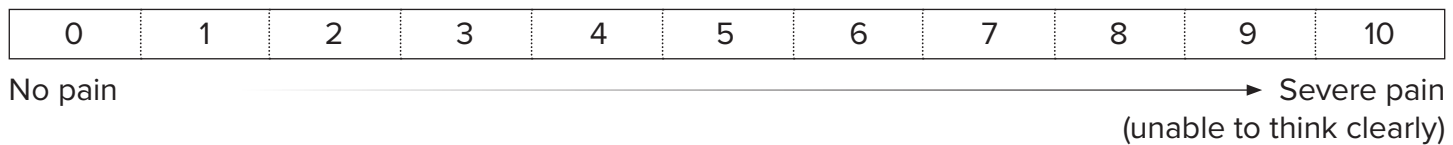


Physical Activity



Work

Circle on the scale where your pain is when you get an attack



Think about these statements and put an x on the scale

	No/not at all ←	→ Yes/a lot
I am unable to go to work or stay at work due to attacks		
I worry I might have an unpredictable attack		
My symptoms are affecting my mental health and well being		
I have tried changing my diet How have you changed it? _____		
Pain from gallstones is affecting every aspect of my life		
I have tried medicines Which medicines have you tried? _____		

Use this space to write down anything else you're worried about regarding gallstones

What triggers an attack for you and what helps if you have an attack?

.....

What does an attack feel like for you?

.....

6 Treatment options for gallstone pain

If you have gallstones, only **surgery** can remove them.

Changing your diet will not get rid of gallstones once they have formed because gallstones take many years to form. It might help prevent new gallstones forming (we don't have enough evidence to say yet).

It is possible to manage attacks of pain or discomfort from gallstones by avoiding things that trigger attacks. You can also take **pain relief** when you get an attack.

Things I can do myself



If you don't have other conditions that could cause complications, you can try to manage attacks yourself.

Avoid foods that trigger painful episodes. Keeping a food and symptoms diary can help you identify foods that trigger pain for you. These might be fatty foods, spicy foods or something else. Everyone is different.

You don't need to remove all fat from the diet. Choose foods like oily fish, avocado, nuts, seeds, olives and olive oil, which contain 'healthier' fats.

Eat lots of fibre (fruits, vegetables and wholegrains such as oats and wholewheat bread). This might help prevent new gallstones or stones getting bigger. Fruit smoothies do not count as a good fibre source and are often very high in sugar.

Keep active. You might want to choose exercise activities that you enjoy to help you maintain a healthy weight.

Eating smaller meals more often rather than large portions can help some people's symptoms.

Medicines



Talk to your pharmacist or GP about safe medicines to take for gallbladder pain. There may be some that are good to take for a short time and others you can take longer term.

For example you can take pain relief such as ibuprofen or paracetamol to help when you get an attack. You should not take ibuprofen long term without talking to your doctor first.

Your pharmacist might suggest other medicines such as antispasmodics e.g. Buscopan.

Your doctor can prescribe stronger pain relief if needed.

7 Treatment options for gallstone pain at the hospital

If you are referred to hospital you might be offered tests

Tests help your doctors understand where your stones are and which treatment to offer.

An ultrasound scan is the best way to see if you have gallstones, where they are, how big they are, and how many there are. A device is put on top of your abdomen and sound waves create a picture of your gallbladder. It usually takes about 10 – 15 minutes.

You will be asked not to eat before you go for the scan. This is important so that your specialist can see your gallbladder when it is full and makes it easier to see the stones.

If your specialist needs to investigate further they might offer an MRI or CT scan.

If you have gallstones you might be offered surgery

Which surgery or procedure you will be offered depends on where your gallstones are, your preferences and other things about you and your health.

You will be offered surgery if:

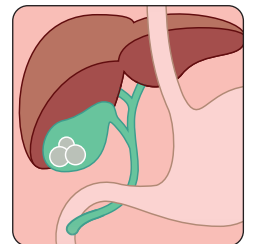
- your symptoms are severe and frequent
- your gallbladder becomes inflamed (cholecystitis). You might be admitted to hospital and offered antibiotics and surgery right away

If your gallstones are in the gallbladder



You will usually be offered **surgery to remove the gallbladder and gallstones**.

- Surgery is usually done as a laparoscopy (keyhole). You will have a number of small cuts in the abdomen. You will be asleep (general anaesthetic).
- If keyhole surgery is not suitable for you, you will be offered open surgery. Your surgeon will make one larger cut in your abdomen.

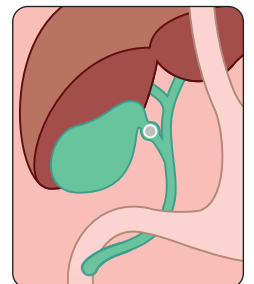


If your gallstones are in the bile duct



ERCP (endoscopic retrograde cholangio pancreatography) is a procedure to remove stones in the bile duct through a long tube called an **endoscope**. The endoscope goes down your throat. You have sedation to make you sleepy and you should not feel any pain. You are usually offered surgery later to remove the gallbladder.

In some hospitals you might be offered **keyhole surgery to remove stones in the bile duct and your gallbladder**. It is not yet done in all hospitals. Ask your specialist if you want to know more.



You usually have stones in the gallbladder if you have them in the bile duct.

8 What if I'm offered **surgery** or **ERCP**?

This page will help you compare the options to remove gallstones. Which you will be offered depends on where your gallstones are and other things about you.

To remove gallstones in the **gallbladder** and **bile duct**

To remove gallstones in the **bile duct**

Laparoscopic (keyhole) surgery

Open surgery

Endoscope (tube) down the throat (ERCP)

You may be offered open surgery if keyhole surgery is not suitable for you.

You are usually offered an operation to remove the gallbladder after ERCP.

How common is it?

About 57,000 each year in England.

About 3,000 each year in England.

How will they access the gallstones?

Your surgeon makes a number of small cuts in your abdomen.

Your surgeon makes one cut about 10 – 15 cm.

Your doctor puts a long thin tube with a camera at the end, an endoscope, into your mouth, down your throat and into your intestine.

What does the procedure involve?

Your surgeon removes your gallbladder with special tools through one of the small cuts.

Your surgeon removes your gallbladder through the cut in your abdomen.

Your doctor widens the opening of the bile duct and removes your stones with the endoscope. Sometimes they leave them to pass out in your poo. Sometimes they put a stent in. This can prevent jaundice and other complications. Usually you have another ERCP later on to remove the stent and the stones.

Will I have stitches?

Cuts usually closed with dissolvable stitches and glue.

Not applicable

Anaesthetic or sedation?

You will have a general anaesthetic (you will be asleep)

Usually you will be sedated which means you will be awake but sleepy and should not have any pain.

How long does it take?

Takes 60 – 90 minutes

Takes 2 – 2.5 hours

Takes 30 – 60 minutes

Hospital stay

Usually you go home the same day. Sometimes you need to stay overnight.

You might stay in hospital for up to 5 days.

Usually you go home the same day. Sometimes you need to stay overnight in hospital.

Recovery

If it all goes smoothly, 7 – 10 days. It can be much longer for some people.

You can exercise when you feel comfortable and drive when you can safely perform an emergency stop without pain.

About 6 weeks to get back to a normal routine.

You can exercise when you feel comfortable and drive when you can safely perform an emergency stop without pain.

You can't drive for 24 hours after the procedure due to the sedation.

You can try to eat normally after these operations. Food should be digested normally.

9 Potential benefits and risks of treatments

The numbers here are based on research studies (see **page 12** for details). These numbers are averages. What works well for one person may not work for another.

People who had gallstones in their gallbladder (out of every 100)

In people who had **mild or moderate** gallstone **pain** and chose

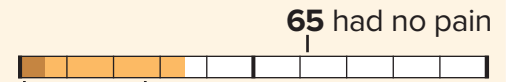
No Surgery / do nothing

Surgery to remove gallbladder

After **1 year** how many still had **pain**?



50 – 60 had pain
40 – 50 had no pain



5 had serious pain
30 had mild pain (did not interfere with daily life)
65 had no pain

It seems that people who have their gallbladder out because their pain is more severe, have more improvement than those who had mild pain.

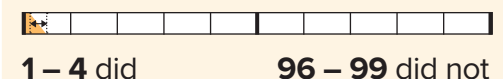
Why did people still have pain after having their gallbladder removed?

It is likely the gallstones were not the cause of their pain. About a third of people do not find the cause of their pain. If you still have pain after you have recovered from your operation, **see your GP**.

How many needed urgent medical treatment due to **pancreatitis** or **stones in the bile duct**?



2 – 6 did
94 – 98 did not



1 – 4 did
96 – 99 did not

How many needed urgent medical treatment due to **colic-like pain**?



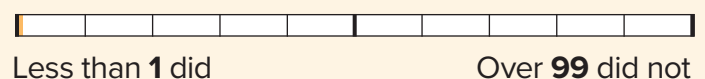
3 – 4 did
96 – 97 did not



Less than **1** did
Over **99** did not

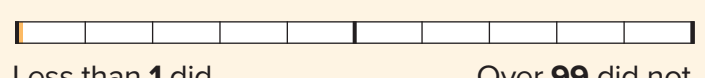
People who had keyhole/open surgery to remove their gallbladder (out of every 100)

How many had **damage to the bile duct** needing another surgery?



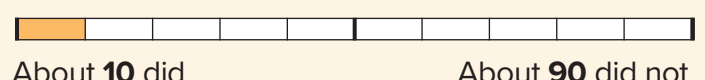
Less than **1** did
Over **99** did not

How many had **bile leaks** that need another surgery or drain?



Less than **1** did
Over **99** did not

How many people **found their stools (poo) were looser** after their gallbladder was removed?



About **10** did
About **90** did not

Some people can have treatment with a medicine for this. If you have **loose stools** after having your gallbladder removed, **see your GP**, they can help.

10 Potential risks of treatments

Potential risks of general anaesthetic

How many out of **100** people feel **thirsty**, have a **sore throat**, feel **sick**, have **bruising** or **shivering**?



60 – 65 in every **100** do

35 – 40 do not

How many out of **100** people have **temporary (1 month)** problems **remembering**, **brain fog**, **emotional changes**?



10 in every **100** do

90 do not

How many out of **100** people have **longer term (1 year or more)** problems **remembering**, **brain fog**, **emotional changes**?



1 in every **100** does

99 do not

How many out of **100,000** people have a **severe allergic reaction** (anaphylaxis)?



Less than **1** in every **100,000** do

More than **99,999** do not

The Royal College of Anaesthetists has up to date patient leaflets about risks of general anaesthetic and other anaesthetic <https://rcoa.ac.uk/patients/patient-information-resources/>

Out of 100 people who have ERCP

How many have **damage to their oesophagus** (food pipe), **stomach** or **intestines** (gut)?



Less than **1** does

Over **99** do not

How many have **mild pancreatitis** that needs treatment in hospital?



5 do

95 do not

How many have **moderate** to **severe pancreatitis** that needs treatment in hospital?



1 – 2 do

98 – 99 do not

How many have **other major complications** like **bleeding** that needs treatment in hospital?



Less than **1** does

Over **99** do not

11 Preparing for your appointment

Questions for my doctor

These can be about any concerns you have, for example what you hope from your treatment decision, what will happen next.

.....

.....

.....

.....

Contacts

Name of doctor, nurse or specialist:

.....

What are their contact details:

.....

.....

.....

Next steps

What will happen next (treatment / tests?)

.....

When will these happen?

.....

When will I be reviewed next?

.....

Do I need to decide anything today?

When do I need to make a decision?

.....

Thinking about your decision

I know enough about the potential benefits and harms of each option Y / N

I am clear about which potential benefits and harms matter most to me Y / N

I have enough support and advice to make a choice Y / N

I feel sure about the best choice for me Y / N

I need more information to make this decision Y / N

I have decided what to do next Y / N

Your specialist might ask you:

- about your prescriptions and doses so it might help if you take your repeat prescription if you have one or note them down
- about your symptoms and how long you have been having problems
- about any other operations you have had in the past and when

12 More information

Where can I go for more information?

Find out how long waiting times are for surgery in your area

<https://www.myplannedcare.nhs.uk>

Information on nutrition and eating to avoid gallstone pain

Patient information

<https://patient.info/news-and-features/gallstones-diet-sheet>

NHS Eat Well Guide

<https://www.nhs.uk/live-well/eat-well/>

NHS Being a healthy weight

<https://www.nhs.uk/better-health/lose-weight/>

Patient Support Groups and Charities

Guts UK

<https://gutscharity.org.uk/advice-and-information/conditions/gallstones/>

British Liver Trust – Gallstones page

<https://britishlivertrust.org.uk/information-and-support/liver-conditions/gallstones/>

Royal College of Anaesthetists - Information about general anaesthetic

<https://www.rcoa.ac.uk/patients/patient-information-resources/anaesthesia-risk/risk-explained>

Where did we get our numbers from?

The numbers of people who have symptoms from their gallstones: from an expert review from 2013

<https://doi.org/10.1002/14651858.CD005440.pub3>

The number of people who have bile duct stones: from reviews in 2006

<https://doi.org/10.1016/j.bpg.2006.05.009> and 1987 <https://doi.org/10.1002/bjs.1800740703>

Numbers of those whose pain was relieved by either doing nothing or having their gallbladders removed: from the SECURE trial of over 1000 people from 2019

[https://doi.org/10.1016/S0140-6736\(19\)30941-9](https://doi.org/10.1016/S0140-6736(19)30941-9) an observational study in 397 Swiss patients from 2000

<https://doi.org/10.1007/s002680010243> 1998, and a study of 92 UK patients

<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2502763/>

The risks of surgery: from reviews of studies, published in 2006

<https://doi.org/10.1002/14651858.CD006231> and 2013

<https://doi.org/10.1002/14651858.CD005440.pub3> and from the C-Gall trial from 2023.

Risks of ERCP: from a review of over 1000 patients in the US from 2002

[https://doi.org/10.1016/S0016-5107\(02\)70112-0](https://doi.org/10.1016/S0016-5107(02)70112-0)

Diarrhoea from two reviews of data, from 2012 and 2022

<https://doi.org/10.4236/ss.2012.36065> and <https://doi.org/10.1136/bmjopen-2020-046172>

For declarations of conflicts of interest, to see other decision support tools in the series, or to find out more about how this one was created, go to:

<https://www.england.nhs.uk/personalisedcare/shared-decision-making/decision-support-tools/>