



## DECISION AID

### Gallstones:

#### What are the treatment options?

You have been diagnosed with gallstones. They might have already led to symptoms such as cramp-like pain in the upper abdomen (colic). But in a lot of people, gallstones don't cause any problems. Then there is usually no need to treat them. Symptoms like digestion problems and nausea often have other causes.

Gallstones can be found in the gallbladder and in the bile ducts. Stones in the gallbladder can usually be detected using ultrasound. Bile duct stones can often only be diagnosed by endoscopic ultrasound scans or MRI.

In rare cases, the gallbladder, bile duct, or pancreas becomes inflamed because of the gallstones. Inflammations or jaundice are comparatively more common in people with colic or bile duct stones.

Your doctor might have recommended that you have your gallbladder or any bile duct stones removed to prevent further symptoms. The aim of this decision aid is to help you choose a suitable treatment together with your doctors.

#### THESE ARE THE TREATMENT OPTIONS:

- > “Wait-and-see” approach
- > Medications to dissolve the gallstones
- > For gallbladder stones: removal of the gallbladder
- > For bile duct stones: removal of the stones

#### PERSONAL DECISION

This short decision aid probably won't include all of the information that you need. It is intended to help you prepare for doctor's appointments, not to replace them. Your treatment decision will depend on various things, including

- where the gallstones are and how big they are,
- which symptoms you have, and
- how certain it is that the gallstones are actually the cause of your symptoms.

**IMPORTANT:** Don't let anyone pressure you into choosing a certain treatment! You normally have the time to gather information and make a decision.

## **WHY ARE THE SYMPTOMS I HAVE IMPORTANT FOR MAKING A DECISION?**

Cramp-like pain (colic) in the upper abdomen is a typical symptom of gallbladder stones. It is very unpleasant, but goes away again after a few hours. But it can keep coming back and be very distressing in the long term. It is also connected with an increased risk of complications, such as inflammation of the gallbladder or pancreas. That is why colic is the main reason for gallbladder surgery. But surgery can also be an option for very large gallstones or a calcified gallbladder wall (porcelain gallbladder) even if there are no typical symptoms. They increase the risk of gallbladder cancer.

Some people also experience other symptoms such as digestion problems, unclear abdominal pain, or nausea. But they are often not caused by gallstones. Gallstones are sometimes discovered by chance without the affected person having any symptoms. Surgery is then not normally needed.

## **WHAT HAPPENS IF THE GALLBLADDER BECOMES INFLAMED?**

The signs of gallbladder inflammation include persistent, severe pain in the right upper abdomen, fever, and chills. These symptoms are first treated in the hospital with antibiotics and painkillers. Removal of the gallbladder within one day is recommended in order to stop the symptoms from coming back and prevent complications.

## **WHAT DOES GALLBLADDER SURGERY INVOLVE?**

Nowadays, laparoscopy is typically used to remove the gallbladder. The procedure is less invasive than open surgery. Laparoscopy involves making three to four small cuts (incisions) in the abdominal wall under general anesthesia. The surgeon inserts thin tubes through these cuts so that small instruments can be moved along them to reach the gallbladder. Open abdominal surgery is only needed in rare cases, such as if problems occur during a laparoscopy.

## **CAN MEDICATIONS DISSOLVE THE GALLSTONES?**

Ursodeoxycholic acid (UDCA) can dissolve gallstones. But it is rarely used and is typically only an option for people who have small, freshly developed gallstones made of cholesterol. Ursodeoxycholic acid is taken for 6 to 24 months. New gallstones often form after treatment.

## SURGERY OR “WAIT-AND-SEE” – PROS AND CONS

	“Wait-and-see” approach	Gallbladder removal	Removal of stones in the bile duct
<b>What does the treatment involve?</b>	Symptoms are treated where necessary. Painkillers and cramp-relieving medications help with colic. Symptoms like bloating or nausea can also be treated.	The gallbladder is usually removed via laparoscopy. Open abdominal surgery is only rarely necessary.	Endoscopic retrograde cholangiopancreatography (ERCP) can be used to removed bile duct stones. Like laparoscopy, a tube is gently pushed through the small intestine to the opening of the bile ducts.
<b>Who is the treatment suitable for?</b>	For people who do have gallstones but no or only unclear symptoms. And if only one colic episode has occurred, it still might be possible to wait and see.	For people who have gallbladder stones and (recurrent) colic.  For very large gallstones or a porcelain gallbladder.  For gallbladder inflammation.	For people with suspected bile duct stones.
<b>What are the advantages of the treatment?</b>	The risks of surgery can be avoided. About half of people who only had one occurrence of colic do not have any more.	Painful colic and complications can be prevented. But unclear symptoms such as bloating, nausea, or abdominal pain might still occur after the surgery.	Painful colic and complications can be prevented. But unclear symptoms such as bloating, nausea, or abdominal pain might still occur after the procedure.
<b>What are the possible disadvantages?</b>	If colic does keep coming back, the risk of complications such as inflammation of the gallbladder or pancreas increases. About 2 out of 100 people with colic caused by gallstones experience complications within a year.	Complications such as damage to the bile ducts occur in about 1 out of 100 operations. Bleeding needing treatment or infections occur in about 4 out of 100 procedures.  Not having a gallbladder is generally not associated with any major disadvantages. But some people have a looser stool or diarrhea a little more often. It normally isn't necessary to change your diet.	About 5 out of 100 people experience complications such as pancreatitis or damage to the bile duct or gastrointestinal tract as a result of the procedure.

## HELP WITH YOUR DECISION

You may still be unsure about which treatment you would prefer. You can write down your thoughts and questions on the following two pages.

Which treatment would I consider?		What do I like about it?	What don't I like about it?
<b>“Wait-and-see” approach / No treatment</b>	<input type="radio"/>		
<b>Gallbladder removal</b>	<input type="radio"/>		
<b>Removal of stones from the bile duct</b>	<input type="radio"/>		

### IF YOU STILL AREN'T SURE: WHAT ELSE DO YOU NEED IN ORDER TO MAKE A DECISION?

With all the different pros and cons to consider, it can be hard to choose a treatment. Depending on your personal situation, it might be possible to wait and see for a while. If distressing symptoms keep developing, surgery is still an option.

If you need more help:

- You will find links to further information on the next page.
- You can talk to your doctor again.
- You can also talk to a different doctor. You will find information about this option on the next page, too.
- You can talk to other people, such as family or other people who have gallstones.





## **DECISION AID**

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#### **Publishing details**

This decision aid was developed by the Institute for Quality and Efficiency in Health Care (IQWiG, Germany). You will find information about our work and the sources used here:

- [www.informedhealth.org/our-approach](http://www.informedhealth.org/our-approach)

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