



## Patient information for gastroscopy and colonoscopy (oesophagogastroduodenoscopy, OGD and colonoscopy, ileocolonoscopy)

Dear patient,

You wish to have a gastroscopy and a colonoscopy performed. As the doctor treating you, I would like to provide you with some important information about the procedure.

### **What happens during a gastroscopy?**

The endoscope is a flexible device similar in shape to a hose with a diameter of about 7 to 9 mm. It is inserted into the oesophagus via the mouth. It is then moved further down into the stomach and, finally, into the duodenum. The device blows in some air to expand the organs. A camera is fitted in the tip of the instrument which shows images of the organs being examined on a monitor. A small forceps in an instrument channel is used to take tissue samples for histological examination and to determine whether the patient is infected with *Helicobacter* bacteria. Taking tissue samples does not cause pain.

### **Why can a gastroscopy be uncomfortable?**

Inserting the endoscope may trigger the pharyngeal reflex (gag reflex). This can be avoided using a breathing technique which we will be glad to explain to you before the examination. Many patients wish to receive a calming injection (sedation). This ensures that they sleep during the examination and hardly perceive any discomfort (see "Sedation").

### **What happens during a colonoscopy?**

The colonoscope is a flexible device similar in shape to a hose. It is inserted through the anus as far as the caecum (the uppermost section of the large intestine) and may also be moved into the end section of the small intestine. Air or carbon dioxide is introduced to expand and inflate the intestine. The images taken by a digital camera in the tip of the endoscope are transmitted to a screen. Tissue samples can be taken with a small forceps for histological examination. As the patient, you do not feel any pain when this is done. If polyps (tissue growths) are found, these should be removed (see "Polyp removal" on next page).

### **Why can a colonoscopy be uncomfortable?**

The curves and loops of the large intestine are different for everyone and are temporarily stretched when the endoscope is advanced. This can be painful. The air required for the intestine to expand can also cause pain. The use of carbon dioxide helps to avoid this pain. The

examination becomes much less of an issue if a calming injection is given. This causes you to sleep for the majority of the time and means that you feel practically no discomfort.

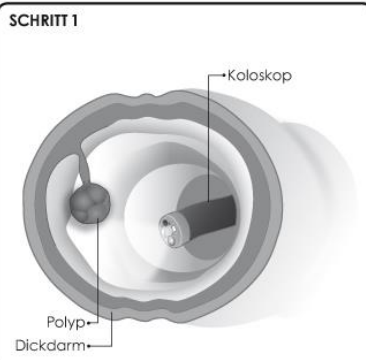
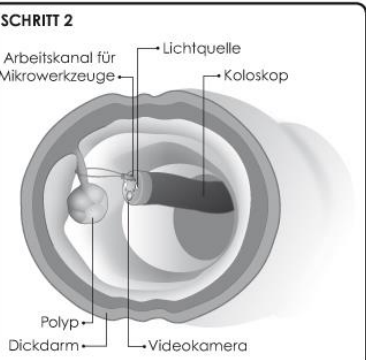

### Are there other ways of examining the large intestine?


X-rays and computer tomography are rarely used.

Disadvantages: exposure to radiation, less precision when dealing with diseases of the mucosa, not possible to remove polyps or take tissue samples

Advantage: reduced risk of injury to the intestinal wall

## Die Koloskopie ist sicher, sauber, schmerzfrei.

<b>SCHRITT 1</b>  <p>Koloskop Polyp Dickdarm</p>	<b>SCHRITT 2</b>  <p>Arbeitskanal für Mikrowerkzeuge Lichtquelle Koloskop Polyp Dickdarm Videokamera</p>	<b>SCHRITT 3</b> <b>Glückwunsch!</b> Während der Untersuchung wurden alle Polypen aus dem Darm entfernt.  <p>Dickdarm</p>
Ab 55 zählt die Krankenkasse die Vorsorgekoloskopie. Die Untersuchung dauert nur ca. <b>20 Minuten</b> .	<b>Vorsorge und Behandlung in Einem.</b> Wird ein Polyp (Vorstufe von Darmkrebs) entdeckt, kann er sofort, sicher, sauber und schmerzfrei entfernt werden.	<ul style="list-style-type: none"><li>• <b>Polypen gefunden und entfernt:</b> Der Gastroenterologe empfiehlt die <b>nächste Darmspiegelung in 3 oder 5 Jahren</b>.</li><li>• <b>Nichts Auffälliges</b> entdeckt: In <b>10 Jahren</b> die <b>Vorsorgeuntersuchung</b> wiederholen.</li></ul>

Weitere Informationen unter [www.darmkrebs.de](http://www.darmkrebs.de) 

Source: Felix Burda Foundation

### What complications could occur?

#### 1. Injury to the intestinal wall

Extremely rare, occurs in about 1 in 10,000 to 20,000 examinations.

Treatment: Surgery

#### 2. Bleeding after taking tissue samples

Extremely rare, usually only occurs in patients with blood thinning issues (medication: aspirin, Plavix, Marcumar etc., serious liver disease)

Treatment: Usually possible by injecting haemostatic medication or placing a small metal clip using the endoscope

#### 3. Respiratory, cardiac and circulation issues

These may occur in patients with severe respiratory, lung or heart disease after the calming injection is given.

Prevention: Continuous measurement of oxygen saturation and pulse (pulse oximetry).

This enables a risk to be detected and treated in good time.

#### 4. Side effects caused by the calming injection after the examination

(see information on sedation)

#### 5. Dental damage, particularly in the event of loose teeth

#### **Discussion with your general doctor or examiner before the colonoscopy**

Please ask us or your general doctor about anything which is unclear or that you think has not been mentioned or discussed. Before the examination, I, as the doctor treating you, will speak to you again personally.

#### **Hygiene**

In this practice, all examination equipment is cleaned and hygienically prepared according to the most modern methods and current guidelines of the Robert Koch Institute. This process is regularly checked by external quality controls. Our endoscopes are cleaned in cleaning and disinfection machines (RDG-E) with individual channel monitoring – this is the most advanced method currently technologically possible for preparing these devices. We always use disposable forceps and disposable slings for tissue samples and polyp removal.

#### **Expanding the intestine using gas**

During a colonoscopy, air is used to expand your intestine. This is a standard procedure which is required for your intestine to be viewed fully. As a result, an unpleasant feeling of pressure and, in some patients, cramp-like abdominal pain may occur after the examination. Special technical equipment allows the intestine to be expanded using carbon dioxide, a non-toxic gas that is quickly absorbed by the intestine after the examination and exhaled through the lungs. This will cause you no discomfort whatsoever afterwards and make the examination itself a much more comfortable experience.

The costs for this special technical equipment are not reimbursed by health insurance companies (“Krankenkassen”). The **additional cost** of using **carbon dioxide** instead of air is **€6**.

If you have any questions about practice hygiene, endoscope preparation or expansion of the intestine with air or carbon dioxide, please feel free to contact us at any time.

## **Patient information on polyp removal (polypectomy)**

Almost all bowel cancers develop from benign growths called polyps. If these are removed in time, bowel cancer can be prevented. The polyp is removed with biopsy forceps or a wire loop through which an electric current is passed. These measures can still lead to the following complications several days to two weeks after the procedure:

### **1. Injury to the intestinal wall**

Rare, in approx. 1 in 500 – 1000 polyp removals

Treatment: Surgery

### **2. Bleeding**

In approx. 1 in 150 to 250 polyp removals

Treatment: Injection of medication into the source of bleeding or application of small metal clips via the endoscope; occasionally hospital admission with possible blood transfusion is required. Transmission of infectious diseases via blood transfusions is possible but very rare. Extremely rarely, surgery is required to stop bleeding.

After a polyp removal, you may only be allowed to drink clear liquids for 48 hours. In consultation with your general doctor, blood-thinning medication must not be taken in the 14 days after polyp removal.

If you experience pain or discharge blood, contact a doctor or go to the nearest hospital. For your safety, do not plan any major journeys for the two weeks following the examination. After polyp removal, we will give you instructions on how to act after the procedure.

## **Patient information on sedation**

A gastroscopy and colonoscopy can be performed without sedation, i.e. without a calming injection. However, most patients require sedation for a colonoscopy.

The perception of the level of discomfort (such as retching or belching) which occurs in a gastroscopy varies very significantly between patients. If you have no problems swallowing a large tablet and do not need to retch in ENT or dental examinations, you are welcome to undergo the gastroscopy without sedation. However, if you retch when you have your teeth cleaned or if you are simply frightened, we strongly recommend that you have a calming injection.

The advantage of undergoing the examination without sedation is that you can leave our practice immediately after the examination, drive a car yourself and go about your regular business.

A gastroscopy and colonoscopy with sedation (calming injection) has the advantage that the patient is asleep and does not remember the examination.

### **Which medication is used for sedation?**

In our practice, we use propofol and, if necessary, midazolam. Both substances are administered via a vein. Propofol is an anaesthetic medication which acts for a very short time and takes effect rapidly. You wake up very soon after the examination. However, it has no pain-

relieving effect and there is also no antidote if unexpected side effects of sedation (see below for details) occur.

The sedative midazolam reduces anxiety and relaxes the muscles. It also ensures that you do not remember the examination afterwards. Midazolam also has the advantage of an antidote (flumazenil) that can be used to reverse the effect if sedation causes problems. However, you will need to be monitored for longer.

After the examination, you will be monitored in a separate recovery area.

### **What are the possible side effects of the medication and what sedation complications could occur?**

The medication used for sedation can be used to achieve different reductions in consciousness up to and including general anaesthesia. In certain circumstances, sedation can therefore lead to full anaesthesia. If life-sustaining reflexes (such as breathing) are impaired or interrupted in this process, appropriate countermeasures (such as assisted breathing) must be taken. However, this is only to be expected extremely rarely - in a maximum of one in ten thousand patients.

In addition, sedation can cause reduced oxygen content in the blood and a drop in blood pressure. Because of this, you will be closely monitored (e.g. with a finger clip during the examination and by regular measurement of your blood pressure).

If you have a heart condition, it may be necessary to also monitor your heart activity by applying special electrodes (ECG).

The practice is appropriately equipped for monitoring and supporting respiratory and cardiovascular function. During sedation, you will be supplied with oxygen through your nose as needed.

In addition, phlebitis (vein inflammation) may occur at the location where the medication is injected. Very rarely, allergic reactions to the soya oil or protein components contained, for example, in propofol have been observed. You should therefore tell us about any allergies you have (e.g. by showing us your allergy passport).

### **What happens after the examination?**

After the examination, you will be helped to our separate recovery area as soon as you have woken up sufficiently. You can continue to sleep there for 30-60 minutes. For safety reasons, even if you are awake, you should remain in the recovery area until you are discharged. The examination findings will be discussed with you before you go home. The result of the tissue sample analysis will be available from your general doctor after 14 days.

For us to discharge you, you will require someone to pick you up, take you home and, ideally, stay with you for a few hours.

After the examination, you must (depending on the medication used) not actively participate in road traffic for up to 24 hours. This means in particular that you must not drive a vehicle, operate heavy machinery, drink alcohol or make any important and legally binding decisions. The ability to work is usually restored the next day (exceptions include professional drivers, pilots, etc.). We will determine the precise length of time for which you must not participate (actively or passively) in road traffic and how long you will be unable to work on the basis of the medication used, the duration and depth of your sedation, your job and your risk profile

Surname, first name, date of birth:

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Do you suffer from any diseases which are relevant to the examination? (Please check the relevant box)

- |   |                              |                             |
|---|------------------------------|-----------------------------|
| Severe lung diseases, asthma  | <input type="checkbox"/> Yes | <input type="checkbox"/> No |
| Severe heart and/or heart valve diseases  | <input type="checkbox"/> Yes | <input type="checkbox"/> No |
| Transmissible infectious diseases   | <input type="checkbox"/> Yes | <input type="checkbox"/> No |
| Blood clotting disorder   | <input type="checkbox"/> Yes | <input type="checkbox"/> No |
| Metal implants (hip, knee, shoulder)  | <input type="checkbox"/> Yes | <input type="checkbox"/> No |
| Epilepsy, glaucoma, myasthenia  | <input type="checkbox"/> Yes | <input type="checkbox"/> No |
| Allergy to latex, plasters, propofol, soy protein, peanuts, Novalgine or Buscopan | <input type="checkbox"/> Yes | <input type="checkbox"/> No |
| Are you pregnant?   | <input type="checkbox"/> Yes | <input type="checkbox"/> No |
| Is there a history of colon cancer or stomach cancer in your family?              | <input type="checkbox"/> Yes | <input type="checkbox"/> No |
| Have you ever had any operations on your abdomen?                                 | <input type="checkbox"/> Yes | <input type="checkbox"/> No |
- If yes, what were they?
- 

Other important diseases (please enter here and inform the examiner):

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What medication do you take regularly? (please present medication plan if applicable)

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If you are taking anticoagulant medication, a decision must be made on a case-by-case basis as to whether and when you should stop taking it.

What is the reason for the examination?

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**Declaration of consent for colonoscopy/sedation (sleep injection)**

- |  |                              |                             |
|--|------------------------------|-----------------------------|
| a) I would like to have the planned colonoscopy performed.     | <input type="checkbox"/> Yes | <input type="checkbox"/> No |
| b) I agree to polyp removal.                                   | <input type="checkbox"/> Yes | <input type="checkbox"/> No |
| c) I would like carbon dioxide to be used instead of air (€6). | <input type="checkbox"/> Yes | <input type="checkbox"/> No |
| d) I would like to be sedated (sleep injection).               | <input type="checkbox"/> Yes | <input type="checkbox"/> No |

**If so, I hereby confirm that I will not drive myself home with a vehicle (car, van etc.) or ride home on a bicycle. I will have someone pick me up at the practice or take a taxi home.**

Remarks: \_\_\_\_\_

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Place, date, patient signature

Dr Stefanie Strobl

## Declaration of consent for the transmission of findings

Surname, first name, date of birth:

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I hereby agree that

- my treatment data and medical findings may be requested from my general doctor or referring specialist if necessary

yes

no

- medical findings may be forwarded to my general doctor/referring specialist/doctor providing further treatment if requested

yes

no

- a person authorised by me may collect prescriptions, medical findings or other documents on my behalf

yes

no

- a telephone consultation about medical findings (e.g. laboratory results) may take place

yes

no

I have been informed that I can revoke my declaration of consent at any time. If I revoke consent, no further data will be transmitted.

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Place, date

Signature