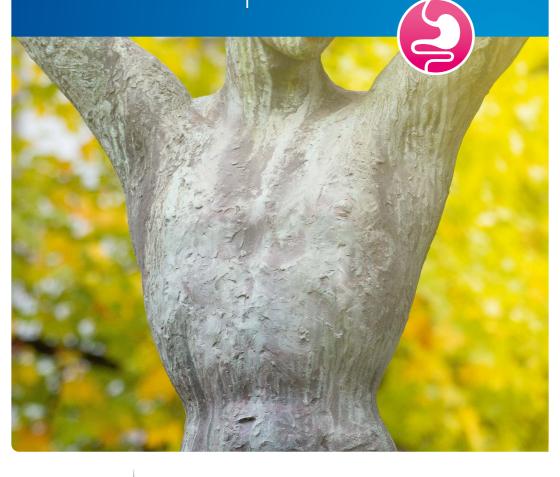
Gastroscopy – Your examination at our practice





Dear Patient,

You are scheduled for a gastroscopy at our practice. Our team will do their best to make this examination as pleasant for you as possible. This brochure is intended to provide information about the examination and its possible results.

What is a gastroscopy and why is it performed?

A gastroscopy (more precisely, oesophagogastroduodenoscopy) is the examination of the oesophagus, stomach and the first part of the small intestine (duodenum). The examination can explain why complaints such as stomach burn/heartburn, belching, abdominal pain, flatulence, nausea, vomiting, difficulty in swallowing, clearing the throat, coughing, diarrhoea and other complaints exist. In addition, several food intolerances can be tested for in this process (such as lactose intolerance, celiac disease, and others). Although there is no clear screening recommendation for stomach tumours, this examination is also useful as a preventive measure in the case of a family history (stomach cancer/oesophageal cancer).

In the case of swallowing difficulties or stomach burn without improvement using medication therapies, vomiting blood or blood appearing in stool or anaemia/iron deficiency (alarm symptoms), this examination should be performed promptly.

Your appointment is planned for:

Please report to our reception about 15 minutes before the examination. If you are unable to attend, please inform us at least 24 hours in advance.

Table of contents

Our practice - how to find us	. 4
Examination day - What you should bring	
and keep in mind	. !
What findings can be determined?	. 8
The practice - About us	1.
Frequently asked questions	16

Our practice - how to find us

Our practice is located in the heart of Zurich between Stadelhofen and Kreuzplatz. We recommend that you avoid driving by car on the day of the examination and let yourself be driven or use public transport.



We are located within a 5-minute walk from Stadelhofen train station or a 2-minute walk from the Kreuzplatz tram stop. You will find us at the end of Merkurstrasse, building number 20, which is a green building located at the back and adjacent to the park (entrance next to Autohaus Kreuzgarage). Parking is only available either at the Opera House (underground parking garage) or in the local blue zones. For pick-up, parking is shortly available directly in front of the building.

Examination day – What you should bring and keep in mind

Please bring the following documents on the day of your examination:

- Signed consent form
- Health insurance card
- Allergy pass (if available)
- Medication card (if available)
- Relevant medical information (if available)

We advise you not to come by car because after the administration of the sleep medication, you should not drive any vehicle. Please come about 15 min before the appointment. If you are unable to attend your appointment, please inform us as early as possible. In the event of short-term cancellations (less than 24 hours), we reserve the right to charge a fee. A detailed description of the examination procedure can be found here below.

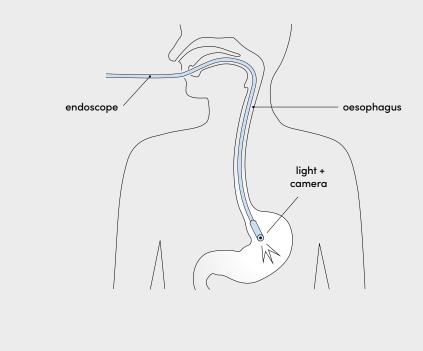
Preparation for the examination

It is important to fast for at least 6 hours. Therefore, it makes sense to perform the examination in the morning and skip breakfast. However, sips of water are allowed. A full assessment can only be done when the stomach is completely empty. Please do not come by car and use public transport or allow someone to drop you off and/or pick you up. If you are taking blood thinning medication or insulin, please discuss this with us or your family doctor. After the examination, you must not drive a vehicle or perform any risky activities (e.g. operating machines or climbing on scaffolding). You should also not sign any legally binding documents. All other activities, however, are usually possible without any problems.

Performing the examination

In most cases, sleeping medication (propofol = Diprivan®) can be administered through the vein to ensure a comfortable examination while you sleep. This medication is not an anesthetic, but allows your body to go into a deep sleep. While sleeping, you will not feel anything during the examination. With the help of a thin endoscope that is fitted with a camera and light source at the tip, images from the stomach are transmitted to a screen. Some air is applied through a channel to see all the sections accurately. Tissue samples can be taken with small forceps that are inserted into the stomach via the endoscope device. Polyps (benign tumors) can also be removed and additional tests (e.g. lactose test) can be made during this process.

Gastroscopy



Possible risks of the gastroscopy

Complications of the gastroscopy are extremely rare (0.2%). Minor secondary bleeding can occur during tissue sampling, although only in the rarest of cases and this event is generally harmless because it can usually be stopped immediately. Temporary mild hoarseness or difficulty in swallowing may occur. Despite the greatest care, injuries to the wall of the digestive tract (perforation) can occur during the examination. In very rare cases, side effects of the sleeping drug (sedation) may also occur.

After the gastroscopy

After the examination, we give you time to wake up. The sleep medication usually wears off within 6-7 minutes (due to the short half-life) and you will quickly feel fine again. Pain or severe bloating does not usually occur. We offer you a drink and a snack if you wish. Afterwards, the doctor will tell you the results and write a report. The results of any tissue samples or removed polyps usually arrive after 1-2 days. In the case of any abnormal findings, the doctor will contact you.

What findings can be determined?

Heartburn/stomach burn (gastroesophageal reflux)

A common finding is inflammation of the lower oesophagus (reflux). In this case, acid and/or stomach contents enter the oesophagus and can cause discomfort or inflammation. The most common reason for reflux is a disrupted function of the sphincter muscle between the stomach and oesophagus. Here, for example, a "diaphragm hernia" (hiatus hernia) may be present (see figure). Early forms of cancer (such as "Barrett's oesophagus") can also occur in this area, which should then be monitored regularly. Therapy mainly includes lifestyle modifications and possibly the use of medication.

1. Lifestyle modifications:

- Weight reduction, if overweight (min. 7%)
- Avoid late evening meals
- Elevate the upper body in bed at night (possibly with an anti-reflux pillow)
- Use herbal antacids
 (e.g., quince syrup, 10mg after meals (1))
- Avoid intolerable foods
 (which may include any of the following: chocolate, coffee, fruit juices, vinegar, very fatty foods, spicy foods, acid-rich foods such as tomatoes, fruits, juices); consider nutritional counselling
- Stop nicotine intake
- Consider changing to a Mediterranean, low-meat diet
- Drink "alkaline water" (pH>8), e.g., by adding a pinch of sodium bicarbonate ("baking soda") to a glass of water (2)

- Use acid-binding medication such as Alucol[®] or Riopan[®] gel, if needed
- Use Gaviscon®
- Medications (proton pump inhibitors [PPI]) such as omeprazole, pantoprazole, esomeprazole, and lansoprazole can be considered



quince juice

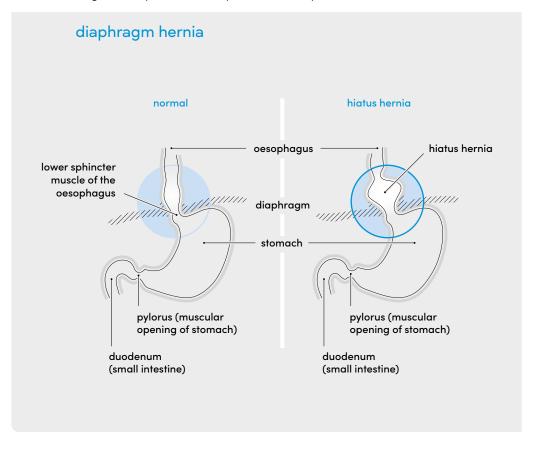
2. If these measures (listed above) are unsuccessful:

- Perform 24-hour oesophageal pH test and manometry (i.e., acid and pressure measurements in the oesophagus)
- Discuss surgical therapies such as gastric fundoplication (i.e., "closure" of a hiatus hernia).

Hiatus hernia - "diaphragm hernia"

A hiatus hernia is a common cause of reflux symptoms. In this case, there is a gap in the diaphragm, which weakens the valve function between the oesophagus and stomach. The development of a hiatus hernia is promoted by obesity (among other factors), but a hereditary component may also be involved. During a normal

lifespan, hiatus hernias can become larger. In severe cases, surgery (e.g., fundoplication) may be necessary.



Infection with Helicobacter pylori

A bacterium called "Helicobacter pylori" can often be detected by a rapid test (urease test) or from tissue samples taken from the stomach. Helicobacter pylori is a bacterium that colonizes (or lives) in the stomach. There are worldwide around 50% of people who carry the bacterium, whereby women and men are equally affected. Transmission can occur through direct contact between people or through contaminated food. While it is harmless in most cases, this bacterium can lead to gastritis, ulcers and even stomach

cancer. Helicobacter is usually treated with a combination of drugs (usually a combination of two antibiotics plus a drug to inhibit acidity).

Eosinophilic oesophagitis ("allergy of the oesophagus")

Eosinophilic oesophagitis is a rare form of inflammation that can lead to difficulties in swallowing. It can only be diagnosed by taking a biopsy of the oesophagus during a gastroscopy. The therapy consists of medication and possible dietary adjustments.

Gastric ulcers

Of 100,000 people, 50 will develop a gastric ulcer every year, and this becomes more frequent with increasing age. A peptic ulcer (ulcus ventriculi) can cause severe abdominal pain, but it does not have to. It can also show up "silently" as internal bleeding, dark stools (melena), and then possibly anaemia. Often these ulcers are caused by infections with Helicobacter pylori - this type of bacterial infection initially leads to gastritis and may additionally cause a peptic ulcer. Medications, especially non-steroidal analgesics (NSAID) or aspirin, are also common causes of peptic ulcers. Stress, smoking and poor diet can promote the disease. If a gastric ulcer is detected during the gastroscopy, it must usually be treated with acid inhibitors (PPI) and the cause (Helicobacter pylori, NSAID) must be eliminated. Operations are still necessary today only in emergencies (perforation). In most cases, a control check to monitor healing is also recommended to safely exclude the presence of a malignant ulcer. Ulcers can also occur in the first part of the small intestine and are then called "duodenal ulcers". The cause and therapy for duodenal ulcers are similar to that for gastric ulcers.

Inflammation of the gastric mucosa (gastritis)

Inflammation of the gastric mucosa is common. It can be triggered by infections (e.g., Helicobacter pylori), but can also be caused by autoimmune diseases or drugs (types A, B, or C). In most cases,

however, no clear cause can be identified. Acid inhibitors (PPI) or herbal medications (e.g., Iberogast®) can be used for therapy.

Gluten intolerance (coeliac disease)

Although a good blood test is available for the diagnosis of this disease, the analysis of samples from the gastroscopy (duodenum) remains the gold standard or optimum test for diagnosis. In severe cases, a flattening of the villi of the small intestine can already be seen visually (macroscopically) in the gastroscopy. Gluten found in food causes inflammation of the small intestine, whereby many substances can no longer be absorbed properly. The therapy involves following a gluten-free diet.

Milk sugar intolerance (lactose intolerance)

The very common intolerance to lactose can be detected with a quick test (Bio-Hit®). This test is not subject to health insurance coverage. Therapy involves reducing lactose-containing foods and/or using lactase products.

Other food intolerances/diseases

Furthermore, evidence for many other (rare) diseases as well as indirect evidence for histamine intolerance (mast cell density) or allergies (eosinophilia) may be suspected in tissue samples. These tests, however, still remain less well proven.

Stomach cancer

Stomach tumours are rather rare in Switzerland and as such there is no clear recommendation for screening. Every year around 900 people in Switzerland develop stomach cancer, mostly at an advanced age. Besides a family history (i.e., first-degree relatives with stomach cancer), additional risk factors for stomach cancer include: permanent infection with Helicobacter pylori; smoking; chronic gastritis (types A and B); excessive consumption of heavily salted foods and preservatives, and cured or smoked meat as

well as an insufficient consumption of fruits and vegetables; rare premalignant diseases of the stomach (Menetrier disease); and previous operations on the stomach.

The practice - About us

The practice at Merkurstrasse 20 has a long tradition of specialist competence. While lung specialists (pneumologists, "Lungdocs") work on the upper floor, the gastroenterologists have been located on the lower floor for over 20 years now, where Dr. Peter Rohr most recently handed over his practice to Dr. Martin Wilhelmi.

The practice borders directly on the park of the "Artergut" and is thus centrally located in the city of Zurich between Stadelhofen and Kreuzplatz, yet quietly surrounded by greenery. We call the park our little "Central Park". We work with the latest generation of endoscopy equipment from Olympus and strictly adhere to all safety and hygiene guidelines. Our team will make your stay as pleasant as possible.



Dr. Martin Wilhelmi has been practising medicine for over 20 years and is an internist and specialist in gastroenterology and hepatology in the cantons of Zurich and Bern. In the last 10 years, he has worked mainly with endoscopy techniques and performed well over 20,000 examinations. In addition to standard examinations

such as the gastroscopy, colonoscopy, and ultrasound, he performs ERCP (examination of the bile ducts), endosonography ("ultrasound from the inside") and various other special examinations/techniques. He has published numerous scientific publications in professional journals as well as the popular science books, "Nie wieder Blähbauch"

(GU Verlag 2019) and "Der Po-Doc" (Trias Verlag 2019). Dr. Martin Wilhelmi speaks German, English, French, a little Spanish and is currently working on his Italian.

Our team includes very experienced medical practice assistants (MPAs) who will do their utmost to make your stay in our practice and the examination as pleasant as possible.



Nicole Burri



Ladina Albonico



Nadine Aebli



Petra Blum

Frequently asked questions (FAQs)

- 1. General questions
- 2. Questions about the examination
- 3. Questions about the time after the examination
- 4. Questions on pre-existing conditions and medication intake

1. General questions

- I could be pregnant, what do I have to consider?
 Pregnancy should be ruled out, although no consequences are likely to result from the examination. Nevertheless especially since sleeping medication is administered pregnancy should be excluded. Please discuss this with us.
- I am currently breastfeeding my child, what do I have to consider?
 After administration of the sleeping medication "propofol", it is recommended to pump out and discard a portion of breast milk after the examination. To be on the safe side, we recommend doing this, even though recent research shows that it is unlikely the drug has any direct effects on breastfed babies.

2.

Questions about the examination

- Is the gastroscopy dangerous?
 No. It is a routine examination with minimal risk of injury or complications.
- Is the examination painful or unpleasant?
 No. We use the sleeping medication "propofol". With propofol, you feel neither pain nor unpleasant during the examination. In many

cases, you may even experience a pleasant feeling.

- Is propofol an anaesthetic?
 No. Propofol is a sleeping medication (acting to provide "short sleep"). Breathing and circulation are not impaired (as with an anaesthesia). However, we monitor breathing and circulation constantly during the examination. The drug works for a very short time only and as soon as we stop the administration, you wake up.
- Can I do the examination without the sleeping medication?
 In principle, yes. Nevertheless, we do not recommend it. A gastroscopy in an awake state can be unpleasant. In addition, research shows that your safety and the quality of the examination increase with the use of sleeping medication.
- Is it possible to have the gastroscopy and colonoscopy during the same examination?

Yes, these procedures can be combined. This has the advantage that only one examination is required and only one administration of sleeping medication is necessary.

- What happens when polyps are found?
 If polyps are found in the stomach, they can usually be removed.
 For this purpose, microtools such as forceps and loops can be used and the low-risk, painless, and complete removal of the polyps can usually be ensured.
- How much time do I have to plan for the examination?

 A total of approximately 1 hour should be planned for the gastroscopy, including the final consultation. Depending on the wake-up phase and program, it may take a little longer.
- Is the cost of the gastroscopy covered by health insurance? In the case of existing complaints, the costs are covered (not exempt from your personal franchise limit).

3.

Questions about the time after the examination

Do I have pain or bloating after the examination?
 No. Carbon dioxide (CO₂) is used for the examination. This gas is

broken down again immediately, and no bloating occurs. Pain also does not occur.

- Can I eat again normally after the examination?
 Yes. There are usually no restrictions.
- Do I find out my examination findings?
 After the examination (and a coffee), we discuss the findings directly. Any tissue samples or polyp tissue will be sent for assessment, and we will receive these results 2-3 days later. If you do not hear from us, the samples are unremarkable. A written report is always sent to your GP.
- How do I get home after the examination? Can I drive?
 You should not participate in road traffic (car, bike) 12 hours after the investigation. You can use public transport or be picked up.

 For older patients, it is helpful to have an accompanying person present.
- What can happen after the examination?
 If you experience high fever, abdominal pain, or a lot of blood in the stool (especially after polyp removal), please contact us immediately. If we are not readily available, please attend an emergency clinic and explain that you have recently undergone a gastroscopy. However, this situation is extremely rare.
- Can I return to work or exercise after the gastroscopy?
 Patients with occupations that require driving vehicles or operating heavy machinery should not work on the day of the examination.
 Other work is possible if you feel good enough. You may also obtain a medical certificate from us, as required. Sport is possible after the examination, but we do not recommend sports such as swimming or high-risk sports (climbing, etc.).

4. Questions on pre-existing conditions and medication intake

Should I take my normal medication as usual?
 On the day of the examination, the medication should only be taken after the examination. If in doubt, please contact us or your GP.

- I take blood thinners, what do I have to consider?

 In the case that tissue samples are taken or polyps are removed, good blood clotting must be ensured. Either Aspirin or Plavix (clopidogrel) as a single medication are not a problem and can still be taken. However, if both medications are combined, one of them should be paused beforehand, if possible. Other medications that thin the blood such as Marcoumar should be paused and this needs to be discussed with your GP. For the medications such as Xarelto, Eliquis etc., these should be paused after consultation either with us or your GP at least 24 hours before the examination, if possible.
- What do I have to consider as a diabetic?

 If you need insulin to control your condition, you should aim for a high sugar level (up to 8 mmol/L) and, if possible, choose an examination date in the morning. No diabetes medications should be taken on the day of the examination. If basal insulin is injected, the dose should be reduced by one third the day before. If you are completely fasting, no insulin should be injected on the day of the examination. It is recommended to measure your blood sugar again before the examination. In case of a very low value, glucose can be taken.
- Does the contraceptive pill work?
 A loss of effect of the oral anticontraceptive pill may occur. In case of any doubt, additional contraceptive measures should be used.
- Is endocarditis prophylaxis necessary (antibiotic administration for heart disease) necessary?
 No. This is currently not recommended for colonoscopy and gastroscopy. If in doubt, please contact us.

Further information

Everything to know about the gastrointestinal tract: www.meindarm.ch - forum for patients and interested parties.



Scientific database for gastroenterology: https://essentialsingastro.com

Swiss Essentials in Gastroenterology

Book tip: "Nie wieder Blähbauch" [Never again a bloated belly] (GU Verlag, 2019)



Book tip: "Der Po-Doc" [The "butt" doc] (Trias Verlag, 2019)



Scientific sources

- J Shakeri A, Hashempur MH, Mojibian M, Aliasl F, Bioos S, Nejatbakhsh F. J Obstet Gynaecol. 2018;38(7):899-905. A comparative study of ranitidine and quince (Cydonia oblonga mill) sauce on gastroesophageal reflux disease (GERD) in pregnancy: a randomised, open-label, active-controlled clinical trial.
- Zalvan CH, Hu S, Greenberg B, Geliebter J. JAMA Otolaryngol Head Neck Surg.
 2017;143(10):1023-1029. A comparison of alkaline water and Mediterranean diet vs proton pump inhibition for treatment of laryngopharyngeal reflux.



Publisher: Dr. Martin Wilhelmi

Concept, layout, design: Faber-Grafik, www.faber-grafik.ch

Photography: Fabian Henzmann Editor: Dr. Martin Wilhelmi

Copyright: The copyright and all other rights to content, images, photos, or other files in this brochure belong exclusively to Dr. Martin Wilhelmi. For the reproduction of any elements, written consent of the copyright holders must be obtained in advance.

Opening hours

Monday to Thursday: 8.00 am - 12.15 pm / 1.00 pm - 5.15 pm Fridays (on every even calendar week) 8.00 am - 12.15 pm



Statue «Jüngling» Hermann Haller 1924 im Arterpark an unsere Praxis grenzend

Practice Dr. med. Martin Wilhelmi

Merkurstrasse 20, 8032 Zurich Telephone: +41 44 251 47 27, Fax: +41 44 251 40 08 praxis.wilhelmi@hin.ch www.magendarm-spezialist.ch

