

Patient name:

Date of birth:



Dear patient!

CT colonography, also referred to as virtual colonoscopy, is an established radiological method which enables a very gentle examination of the entire colon.

The examination is used both, to clarify complaints and, as an alternative to colonoscopy, for the prevention of colon cancer. It is based on performing a computer tomography. The data obtained is processed into two and three-dimensional images. Images of the colon can be generated on the computer without having to penetrate the intestine as is the case with conventional colonoscopy. Patients usually tolerate the examination very well. It is not necessary to administer tranquillisers or even an anaesthetic.

How is the examination carried out?

Do I need an intestinal preparation?

CT colonography is based on three steps:

1. Diet and intestinal cleansing with laxatives before the examination

As with all intestinal examinations, stool-remains limit the validity of the examination, as diseases can be concealed or faked. In order to examine the colon, it must thus be free of stool. Therefore, a laxative is administered on the day before examination in order to completely empty the intestine. In addition, a contrast agent is administered on the evening before the examination.

2. Filling the colon with CO₂ or air

In order to be able to examine the colon from the inside, it must be unfolded. For this, a thin flexible intestinal tube is carefully inserted 5-6 cm into the rectum. This tube is used to gently and completely fill the intestine with CO₂ (carbon dioxide) or air. The filling causes a slight feeling of tension (similar to “flatulence”) in the abdomen, which is uncomfortable and slightly painful to some patients. To avoid possible intestinal cramps, medication (Buscopan) is administered before the filling. You are monitored and supervised by expert staff throughout the entire examination.

3. CT examination of the abdominal cavity

A low-dose computer tomography of the entire abdomen, including the air-filled colon is now performed, first in prone position and then in supine position, with a respective recording time of 5-15 seconds. For an intestinal assessment it is not necessary to administer a contrast agent via vein infusion, but it can sometimes be necessary for assessment of the other organs of the abdominal cavity. The entire duration of the examination is 10-15 minutes. Then the intestinal tube is removed and the examination is completed. The air or CO₂ (carbon dioxide) in the intestine escapes naturally or is absorbed. After the examination, the patient can drink or eat normally again.

Diagnostic benefit and limitations of the examination:

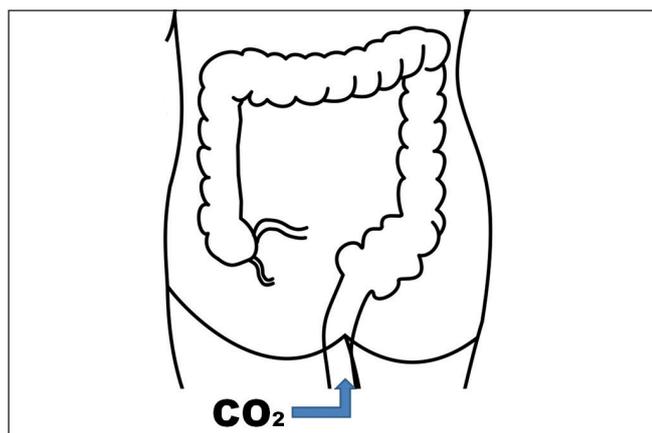
CT colonography is a widely recognised and accepted procedure. It is particularly suitable for patients in whom a conventional colonoscopy is not possible or could not be carried out completely. It can also be used as an alternative to colorectal cancer screening in patients who reject conventional colonoscopy.

CT colonography is equivalent to conventional colonoscopy for the detection of clinically significant colon polyps with a diameter of 1 cm or larger and colon cancer. In tiny polyps less than 6 mm in size, the detection rate of CT colonography is lower than that of colonoscopy. However, these results are far less significant.

If a pathological change is detected, it can however not be eliminated with this method. Then, further colonoscopy and polyp removal or removal of a tissue sampling is necessary.

What complications can occur?

1. Intestinal perforation
2. Bleeding (haemorrhage)
3. Infection



In very rare cases, the intestinal wall may rupture due to the filling with air or CO₂ at previously damaged sites (intestinal perforation) or intestinal bleeding may occur. The risk of this is extremely low (1 patient in approx. 3700)¹. Intestinal perforation can require surgery (1 patient in approx. 12,500)^[1].

CT examination is associated with exposure to X-rays. The risk of X-rays in CT is very low. You have been referred to this CT scan by your attending doctor, because this CT examination is important for diagnosis. The medical advantage far outweighs the possible risk of a secondary disease (radiation sequela).

If a drug is administered to calm the intestine, this can temporarily lead to dry mouth, accelerated heart rate or impairment of the eye's ability to adapt (restricted reading ability). In this case, it is not permitted to drive a vehicle independently within 45 minutes after completion of the examination.

Please inform your doctor prior to the examination if you suffer from a narrow-angle glaucoma (cataract) or increased eye pressure.

Women should always inform their attending doctor and the contact person in radiology (RT or radiologist) about a possible pregnancy, because this type of examination is generally not recommended for pregnant women except in emergency situations.

Colon cleansing

Only a clean colon can be assessed! For this reason, appropriate preparation is essential. **Since there are different variants for the preparation, please refer to the special requirements of the examining department!** If you are taking medication, please note that its effectiveness may be impaired or limited by the laxative. This also applies, e.g. for the contraceptive or blood-thinning drugs. Therefore, additional contraceptives are recommended until the next menstrual period. Please discuss this, as well as the contra-indications and side effects with your attending doctor.

Important questions before the examination:

Size (cm): Weight (kg):

Familien-/Anamnese bezüglich

- | | | | |
|--|-----------------------------|------------------------------|-------|
| Colon cancer | <input type="checkbox"/> No | <input type="checkbox"/> Yes | ..... |
| Polyps | <input type="checkbox"/> No | <input type="checkbox"/> Yes | ..... |
| Chronic inflammatory intestinal diseases | <input type="checkbox"/> No | <input type="checkbox"/> Yes | ..... |
| Diverticular disease | <input type="checkbox"/> No | <input type="checkbox"/> Yes | ..... |
| Intestinal perforation | <input type="checkbox"/> No | <input type="checkbox"/> Yes | ..... |
| Intestinal obstruction | <input type="checkbox"/> No | <input type="checkbox"/> Yes | ..... |

Symptoms:

- | | | | |
|------------------------------|-----------------------------|------------------------------|-------|
| Diarrhoea | <input type="checkbox"/> No | <input type="checkbox"/> Yes | ..... |
| Fever | <input type="checkbox"/> No | <input type="checkbox"/> Yes | ..... |
| Constipation | <input type="checkbox"/> No | <input type="checkbox"/> Yes | ..... |
| Hernia / incarcerated tissue | <input type="checkbox"/> No | <input type="checkbox"/> Yes | ..... |

Previous colon examinations?

- | | | | |
|---------------------|-----------------------------|------------------------------|-------|
| Specify which/when? | <input type="checkbox"/> No | <input type="checkbox"/> Yes | ..... |
| - complete: | <input type="checkbox"/> No | <input type="checkbox"/> Yes | ..... |
| - incomplete: | <input type="checkbox"/> No | <input type="checkbox"/> Yes | ..... |
| Intestinal X-ray: | <input type="checkbox"/> No | <input type="checkbox"/> Yes | ..... |

Previous abdominal, pelvic or gastrointestinal surgery. Which?

- | | | | |
|---------------------|-----------------------------|------------------------------|-------|
| (e.g. appendectomy) | <input type="checkbox"/> No | <input type="checkbox"/> Yes | ..... |
| Artificial anus? | <input type="checkbox"/> No | <input type="checkbox"/> Yes | ..... |
| Radiotherapy? | <input type="checkbox"/> No | <input type="checkbox"/> Yes | ..... |

Allergies:

- | | | | |
|---------------------------|-----------------------------|------------------------------|-------|
| X-ray contrast agent | <input type="checkbox"/> No | <input type="checkbox"/> Yes | ..... |
| Butylscopolamine/Buscopan | <input type="checkbox"/> No | <input type="checkbox"/> Yes | ..... |
| Other allergies: | <input type="checkbox"/> No | <input type="checkbox"/> Yes | ..... |

Glaucoma

- | | | | |
|--------------------------|-----------------------------|------------------------------|-------|
| (increased intra-ocular) | <input type="checkbox"/> No | <input type="checkbox"/> Yes | |
|--------------------------|-----------------------------|------------------------------|-------|

INFORMATION LEAFLET

CT Colonography – Virtual Colonoscopy

Explanatory conversation

By signing, I confirm that I have read and understood the text in this form. I have answered the questions to the best of my knowledge and belief. The risks were explained to me in a personal talk and my further questions were answered satisfactorily. I agree that the suggested examination should be carried out.

 Signature of the patient and/or his/her legal representative	Name and signature of the doctor
Date / time	Name and signature of the medical-technical employee

Please hand this form to the attending medical-technical staff before the examination.

Medical notes on the information talk	Name of the patient	
The patient agrees to the examination	Yes <input type="checkbox"/>	No <input type="checkbox"/>

In the event of rejection of the examination, the patient was informed of possible consequential harm.