

Colonoscopy



NATIONAL SCREENING
PROGRAMME FOR THE EARLY
DETECTION OF PRECANCEROUS
CHANGES AND COLORECTAL
CANCER

Svit 

It's time to think about yourself.

Dear reader!

This booklet is aimed at people who have been identified by Svit, the national screening programme for the early detection of colorectal cancer, as possibly being susceptible to pathological changes in the bowel, and who therefore require a more detailed examination.

Proper and thorough investigation of those at risk of developing colorectal cancer is one of the basic aims of the programme. We hope that this booklet will help you find answers to questions you are asking yourself, encourage you to undergo any necessary procedures, and help you prepare for those procedures. Only in this way can we all work together to ensure that you enjoy good health. You will be part of the Svit Programme until you are 74 years of age, but do please keep hold of this booklet as you might need it again at some point in the future.

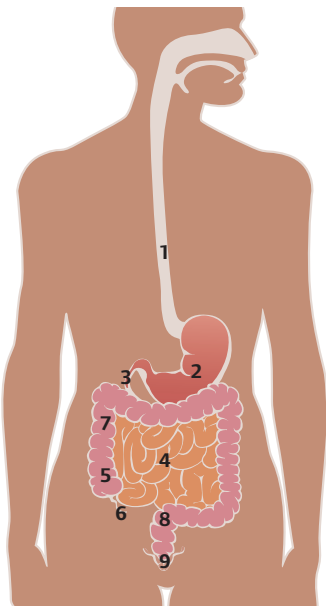
We wish you the very best of health.

The Svit Programme team



The colon and how it works

The colon is the final section of the digestive tract. It is about 1.5 metres long and ends in the rectum. It is here that electrolytes and liquids are absorbed. The colon is also where faeces is stored temporarily, and is the organ for excreting digested matter from the body. The bacteria that populate the colon as beneficial intestinal flora play a very important role in this process. The food we eat passes through the small intestine relatively quickly as a thin mixture, but stays longer in the colon, where it is churned and thickened and the residues are prepared for excretion.



How important a healthy colon is for general well-being and for ensuring that the body functions normally is something we usually only realise when problems arise. Even then, we are often surprisingly indifferent to this part of our body – which is entirely the wrong way to think. Ensuring normal bowel movements is an important task of the digestive tract, so when prolonged problems arise in connection with this, a visit to the doctor is necessary. You shouldn't feel embarrassed – any potentially embarrassing event for you is an everyday part of the doctor's profession.

1 oesophagus; 2 stomach; 3 duodenum; 4 small intestine; 5 caecum;
6 appendix; 7 large intestine; 8 rectum; 9 anus

Colonoscopy

A medical procedure that uses an endoscope, a special medical device for examining the inside of the human body, is called an endoscopy. A

rectal endoscopy (rectoscopy) and bowel endoscopy (colonoscopy) is the **most important diagnostic method for detecting pathological changes in the colon and the rectum**. It enables a precise examination to be made of the lining of the bowel and tissue to be taken for further detailed examination.

A **colonoscopy** is the endoscopic investigation of the colon using a colonoscope – a flexible tube comprising a large number of optical fibres through which a picture of the interior of the bowel is transferred to a screen, allowing the doctor to examine the lining of the colon and the rectum in their entirety. Prior to a colonoscopy, the patient must empty and cleanse their bowel using the appropriate laxatives. During the colonoscopy, the doctor may remove polyps from the bowel. This procedure is called a polypectomy. If the doctor notices a tumour during the investigation, s/he takes a sample of tissue for further testing. We call this ‘performing a biopsy’. The tissue sample is examined under a microscope by pathologists, who then prepare a set of pathohistological results that confirm or rule out the presence of cancer or another bowel disease.

Colonoscopies are performed in hospitals, at clinics specialising in the treatment of gastrointestinal diseases (gastroenterology clinics) and diagnostic centres. While the procedure is not normally painful, it can be slightly uncomfortable.

A colonoscopy is the most reliable diagnostic method for detecting precancerous and cancerous changes to the colon and rectum. If the colonoscopy yields a completely normal set of results, the next colonoscopy normally does not have to be scheduled for another ten years. For people

with a higher risk of developing colorectal cancer, the next colonoscopy will be scheduled before this. A gastroenterologist will decide how long you should wait for the next procedure based on information on the type of risk you face.

As colorectal cancer does not develop in the same way in every person, it is important, even in this case, to continue to monitor bowel functioning carefully and to contact your doctor should any problems arise (changes in bowel movements, e.g. constipation followed by



Colonoscope

diarrhoea or very thin stools, bloating, stomach pain, blood in the stool or other unexplained stomach problems). You should contact your doctor immediately if you experience sudden and severe stomach problems.

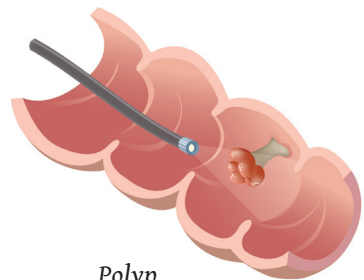
What is a colonoscopy able to show?

Traces of blood in the stool can indicate pathological changes. The doctor will be able to detect any such changes during the colonoscopy. It is entirely possible that a detailed investigation will not show any pathological changes in your bowel – indeed, this is the outcome of around one third of colonoscopies. The following pathological changes that may be detected during a colonoscopy.

Colon polyps

A polyp is a tissue formation or growth that arises from the lining of the colon, protruding from the intestinal or rectal wall into the intestinal cavity. **Specialists recommend that all polyps be removed from the colon and rectum, as cancer almost always starts with a polyp.** Small polyps do not often cause any problems at all – if they do, it is most commonly bleeding from the bowel. A large polyp can cause cramps, stomach pain and severe constipation. In exceptional cases, a large polyp may even lead to complete blockage of the bowel, stopping the movement of stools and gases. Not only is this extremely painful, it can be life-threatening.

Colon polyps are found in more than half of all colonoscopy patients over the age of 50. They are normally removed during the procedure, and this is often the end of treatment. Further procedures are necessary only in the case of larger or potentially cancerous polyps.



Chronic inflammatory bowel diseases (ulcerative colitis, Crohn's disease)

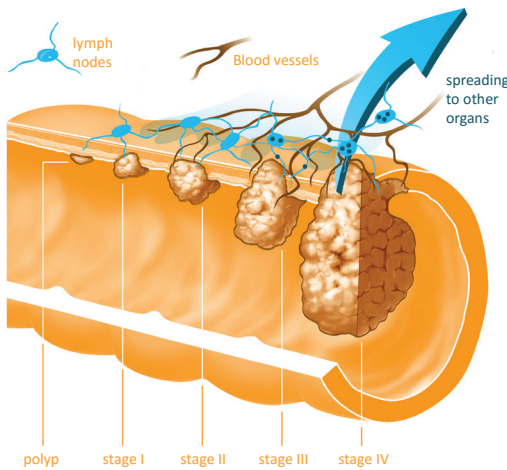
Ulcerative colitis and Crohn's disease are the two most common chronic inflammatory bowel diseases. The risk of developing cancer is higher

among patients with these diseases, which is why frequent colonoscopies are required. These patients are usually under the special supervision of a specialist.

Tumour

If cells in the colon or rectum begin dividing uncontrollably, this means that a tumour is forming. Tumours can be benign or malign. Benign tumours do not cause any major problems, do not usually grow back after being removed, and do not spread to other parts of the body (metastasis). Colorectal or bowel cancer is the name we give to malign tumours in the colon and rectum. Cancer cells multiply, penetrate into surrounding tissue and may spread to other parts of the body via the blood or the lymphatic system, where cancerous tissue metastasises.

It is extremely important for cancerous changes in the bowel to be detected as early as possible, when treatment is still possible.



The stages of colorectal cancer

Why cancer develops in the colon and the risk factors for developing cancer

Why colorectal cancer occurs has still not fully been explained, although research does show that it is most likely the result of a combination of hereditary and environmental factors. Risk factors are

factors that increase the likelihood of an individual contracting a form of cancer.

The following factors have been proven to increase the likelihood of contracting colorectal cancer.

Age. The fact that around 90% of those found to have the disease are over 50 makes age the **top risk factor for colorectal cancer**. Specialists therefore advise people in this age group to undergo screening and diagnostic examinations.

Environment (diet, alcohol, smoking, unhealthy lifestyle). The risk of developing colorectal cancer is increased mainly by the consumption of meat and fatty foods. Experts recommend a varied diet with plenty of fruit and vegetables, which contain large amounts of fibre. In contact with liquid, fibre swells and binds many harmful substances that are ingested or formed during the digestion process. Fibre promotes bowel movement and shortens the period of contact between digested food and the lining of the bowel. The bowel is emptied more quickly, with harmful substances having less time to affect the cells that line the bowel wall. An unhealthy lifestyle (insufficient exercise, being overweight, excessive alcohol consumption and smoking) increases the risk of contracting colorectal cancer. Healthy living will protect you not only against cancer but also against numerous other diseases.

Colon polyps are a 'hidden danger' when it comes to cancer development, which is why they must be detected and removed as soon as possible.

Some hereditary diseases that are otherwise very rare present a particular risk for the development of colorectal cancer. These include various polyposis syndromes, as well as hereditary nonpolyposis colorectal bowel cancer, which also increases the risk of developing other cancers. People whose closest blood relatives have at any time contracted colorectal cancer are at greater risk of falling ill to the same disease themselves. It is therefore vital that you get to know the medical histories of your closest blood relatives.

Everything you have read so far about the bowel and the changes that can occur to this organ should have convinced you of the very great importance of finding out as quickly as possible what is really going on inside your body. This is why you should never postpone a colonoscopy.

Preparing for a colonoscopy

A colonoscopy is a procedure that requires your active cooperation if it is to be successful.

Before visiting your doctor:

- Carefully read the instructions that we have enclosed with the letter informing you of the positive result. Show your doctor the letter and any documents enclosed with it.
- Complete the section of the colonoscopy preparation questionnaire relating to your family's medical history (anamnesis). If you do not have precise information, you can obtain it from the relevant medical institutions. You will complete the other parts of the questionnaire with the help of your doctor.
- Make sure you have compulsory medical insurance in place.
- Prepare a list of all the medications you take, and gather together the results of all the recent examinations you have undergone (your doctor might need this information).
- We suggest that you write down any questions you may want to ask your doctor about the course of the procedure.

1 Visit your doctor

Your doctor will monitor the entire course of the procedure and subsequent treatment. S/he will carry out a thorough consultation with you, conduct a general medical examination, and establish whether your state of health is such that the colonoscopy can be performed. S/he may, prior to the colonoscopy, adjust the way you take any medication that could affect the course of the procedure (particularly if you take anticoagulants). Tell your doctor precisely what medication you take on a regular basis.

Do not stop taking any medication at your own initiative. You must follow your doctor's instructions only. If you have diabetes or suffer from kidney, liver, heart or lung disease, or if you have high blood pressure, haemophilia, epilepsy or any other chronic disease, you must inform your doctor of this, giving precise and detailed information.

Your doctor will also advise you on how to take the medications you need for other health problems in the period leading up to the colonoscopy. If

the doctor's assessment is that you are medically capable of undergoing the colonoscopy, s/he will issue you with a referral for a screening colonoscopy under the Svit Programme and a prescription for MoviPrep®.

2 After visiting your doctor, call us on +386 1 620 45 22 and tell us whether you are (or are not) medically capable of undergoing a colonoscopy.

We will agree on a time and place for the procedure that suits you best. We will, of course, be available to answer any further questions you may have.

3 We will send you by post a letter confirming the date and time of the colonoscopy at the specialist clinic selected.

4 Bowel-cleansing

A colonoscopy is only successful if the patient has thoroughly cleansed their bowel (i.e. there are no stool residues) by the time the procedure is performed. If the bowel is not completely clean, the colonoscopist will not be able to get a good look at the lining of the bowel and the procedure will have to be repeated. You will cleanse your bowel in two ways: by restricting the types of food you eat in the days leading up to the procedure, and by drinking a special preparation on the day of the procedure. **For the procedure to be as successful and as safe as possible, it is vital that you follow these bowel-cleansing instructions.**

4.1 One week before the colonoscopy:

- Make sure you secure your supply of MoviPrep® bowel preparation in good time.
- Adjust your medication regime as advised by your doctor.
- Do not eat wholegrain bread or fruit containing seeds (grapes, kiwi, tomatoes), as the pips can lodge temporarily in the bowel walls and impede the procedure.

4.2 3 days before the colonoscopy:

- In addition to the foods indicated previously, do not eat any raw vegetables or fruit, red-peeled fruit or vegetables (e.g. red pepper, tomato, grapes, etc.), dried fruit, corn or seeds.

- Eat white bread and white flour products, peeled potatoes, lean meat and fish, boiled and peeled vegetables, and compotes.
- Drink at least 2 litres of fluid a day. The fluids should not contain any red colouring.

4.3 24 hours before the colonoscopy:

- **You may eat your last meal of solid food 24 hours before the colonoscopy. This meal may contain:** white bread, pastries and pasta made from white flour, thin jam free of pieces of fruit, honey, lean meat, fish, pudding, pancakes, clear soups and fruit juices, corn and rice flakes, sponge cake, skimmed milk yoghurt, tea and coffee without milk. **This meal must not contain: food containing wholegrain flour or bran, muesli, red-coloured food, fruit and vegetables, thick juices.**
- After the last meal, **you must not eat any solid food.** You may drink water, colourless fruit juices, clear soups, tea and coffee without milk. Do not drink any milk, dairy products, thick juices or alcohol.
- **After the last meal of solid food, you must drink 2 litres of Donat Mg[®], which should be at room temperature and without bubbles (open the bottle the day before).**

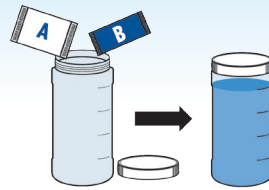
If you are being treated for diabetes, the clinic will give you a specially prepared set of instructions on what you can eat and the medications you may take prior to and after the colonoscopy.

4.4 Bowel-cleansing immediately prior to the procedure

MoviPrep[®], which you will pick up from a pharmacy, is a preparation designed to cleanse your bowels prior to a colonoscopy. It comes in the form of a powder from which you make up 2 litres of solution.

The pack contains 2 sets of sachets. There are 2 sachets in each set (sachet A and sachet B). Mix the contents of one sachet A and one sachet B from the first set with a litre of room-temperature water until the powder dissolves completely. Prepare the second litre of the solution in the same way. The solution may rest in the fridge or at room temperature for a maximum of 24 hours. We recommend that you cool the solution prior to consumption, and use a straw, as this will make the experience slightly more pleasant.

In the morning of the day of the procedure, take any medicines you need to take (except for those you may not take because of the procedure). Use as little water as possible.



4.5 When you start taking MoviPrep® depends on the scheduled time of the procedure:

Morning procedure (before midday)	Afternoon procedure (after midday)
Begin drinking the first litre of solution at 8 pm on the evening before the colonoscopy.	Begin drinking the first litre of solution 8 hours before the colonoscopy.
Begin drinking the second litre of solution early in the morning, 5 hours before the colonoscopy is due to start.	Begin drinking the second litre of solution 5 hours before the colonoscopy.

4.6 How do I take MoviPrep®?

Drink 2.5 dl of the solution every 15 minutes. It is important that you drink a full litre in approx. one hour. If you start feeling unwell or feel like vomiting, wait 30 minutes before taking the next dose. Use that time to walk around the house, as walking helps to improve the outcome of the cleansing procedure. After you have drunk the first litre of solution, drink another half a litre of a clear liquid of your choice. It is about now that the bowel-cleansing procedure will begin. Diarrhoea will appear and last approx. 2 hours.

After you have drunk the second litre of solution, drink another half a litre of a clear liquid of your choice. Diarrhoea will reappear and last approx. 2 hours. After the second litre of solution, you should be passing pure, almost clear liquid, which may be yellowish in colour but will not contain larger pieces of solid matter. If solid matter is present, continue taking Donat Mg®.

You must not eat or drink anything in the last 3 hours before the colonoscopy and until the procedure is completed.

Course of the procedure

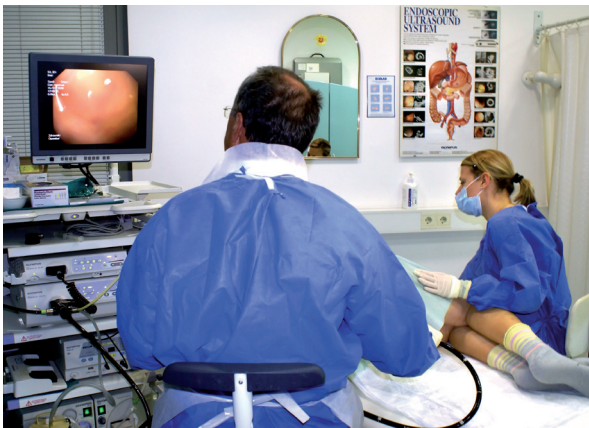
Make sure you take the following with you to your colonoscopy examination:

- confirmation of issue of an e-Referral (eNapotnica)
- your health insurance card
- any documentation and instructions given to you by your doctor
- a completed colonoscopy preparation questionnaire

We recommend that you have someone accompany you. If you receive a sedative or any painkilling medication during the procedure, you must not drive for 24 hours. We therefore recommend that you have someone available to drive or accompany you home.

The procedure normally lasts between 20 and 60 minutes. During the procedure, you will lie on your side and perhaps also on your back. In order to get a better look at the lining of the bowel and at any possible pathological changes, the colonoscopist will blow air or CO₂ into the bowel during the procedure. This may cause a feeling of tension, movement or cramp. If you experience any pain during the procedure, tell the colonoscopist, who will take steps to lessen it.

During the procedure, the colonoscopist might perform several other procedures: removing polyps (polypectomy), taking a sample of tissue for further investigation (biopsy), stemming bleeding from damaged vessels, etc.



Colonoscopy

Can colonoscopy be dangerous

Complications during a colonoscopy are extremely rare. There might be some bleeding after a polyp is removed, but this normally stops of its own accord. Only rarely are other interventions required. In rare instances the bowel might be perforated, necessitating an operation. **In order to ensure a safe procedure, it is very important that your bowels have been thoroughly cleansed by the time it is performed.**

After the procedure

When the procedure is completed, the colonoscopist will tell you how it went, whether s/he detected any pathological changes, removed any polyps, performed a biopsy or carried out any other interventions. If no significant changes in your bowel have been detected, the colonoscopist will inform you immediately of the good news. However, if s/he has taken a sample of tissue for detailed examination, you will have to wait for the results. A biopsy does not mean that the colonoscopist has detected cancer – it is merely for the purpose of establishing what kind of tissue has been detected.

After the procedure you can go home. Only rarely, if larger polyps have been removed, will you be kept overnight for observation.

Possible complications after the procedure

Although post-colonoscopy complications are very rare, you should familiarise yourself with those that can occur so that you are able to recognise and respond to them on time. If you experience sever stomach pain or notice heavier bleeding from the bowel (small amounts of bleeding stop of their own accord), if your temperature rises or you experience chills, you should contact a doctor for help without delay. In rare instances, bleeding may occur for several days after polyp removal, so you should examine your stools during that time. or significant bleeding from your colon (light bleedings will soon pass), if your body temperature increases or you get a fever, you must immediately consult your general practitioner. Bleeding can exceptionally occur a few days after polyps have been

removed, so you need to pay close attention to your stools for a few more days.

Further treatment

It may be the case that the doctor is unable to perform a full examination, or remove all the polyps that could eventually lead to cancer, during the colonoscopy. In that case, s/he will schedule a timetable for further treatment.

The specialists and your own doctor will let you know if you require a special form of treatment. Further procedures will enable them to define any pathological changes more precisely. Together you will decide on the best treatment for you.

Additional information

You can call us for any information on **+386 1 620 45 22**. This line is open from Monday to Friday between 9 am and 2 pm. You can also write to us at svit@nijz.si or by fax to +386 1 620 45 29. You will also find a large amount of detailed and interesting information on the Svit Programme website at www.program-svit.si.

Glossary of the most common medical terms expressions

internist – a doctor specialising in internal medicine

gastroenterologist – a doctor specialising in gastrointestinal diseases

pathologist – a doctor specialising in detecting pathological changes to cells, tissue and organs

histologist – a specialist who studies the microscopic structure of tissue

pathohistological result – any pathological changes to tissue established by microscopic examination

biopsy – the taking of a tissue sample for microscopic examination

polypectomy – the removal of a polyp during a colonoscopy

carcinoma – a type of malignant formation/cancer

benign – non-cancerous, non-malignant

malignant – cancerous tissue in which abnormal cells undergo unregulated growth, spread into the surrounding area and metastasise

metastasis – the spread of cancerous tissue to another site in the body

hospitalisation – admission to and treatment at a hospital

You might wish to share your experiences with others who have undergone a colonoscopy or another procedure, or who might even already be undergoing cancer treatment. You can contact the following organisations, who will be happy to advise you:

Cancer Patients Association of Slovenia (Društvo onkoloških bolnikov Slovenije)

Poljanska cesta 14, 1000 Ljubljana

Tel: +386 1 430 32 63, **Mob:** +386 41 835 460, **Fax:** + 386 1 430 32 64

Email: dobslo@siol.net, **Online:** www.onkologija.org

ILCO Federation of Disability Societies of Slovenia (Zveza invalidskih društev ILCO Slovenije)

ILCO Federation of Slovenia (Zveza ILCO Slovenije)

Trubarjeva 15, 2000 Maribor

Tel: +386 2 228 22 05

Email: info@zveza-ilco.si

Online: www.zveza-ilco.si

Office hours: Every weekday, 8 am to midday

Association for the Fight Against Colorectal Cancer – Europacolon Slovenija (Združenje za boj proti raku debelega črevesa in danke Europacolon Slovenija)

Povšetova 37, 1000 Ljubljana

Tel: +386 31 577 449 or +386 31 313 258

Email: info@europacolon.si

Online: www.europacolon.si

Federation of Slovenian Anti-Cancer Societies (Zveza slovenskih društev za boj proti raku)

Trubarjeva cesta 76a, 1000 Ljubljana

Tel: + 386 1 430 97 80

Fax: +386 430 97 85

Email: info@protiraku.si, **Online:** www.protiraku.si



**NATIONAL SCREENING PROGRAMME
FOR THE EARLY DETECTION OF
PRECANCEROUS CHANGES AND
COLORECTAL CANCER**

Svit Programme

P.P. 241, 1001 Ljubljana
telefon 01/620 45 21
telefaks 01/620 45 29
svit@nijz.si
www.program-svit.si/en