The informed patient

Proctological operations
including instructions for aftercare

Information on rectal and anal surgery and rehabilitation
Proctological operations

including instructions for aftercare

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## Contents

### Introduction and foreword

- General information
  - Pain
  - Digestion and bowel movement
  - Wound care and anal hygiene
  - Incapacity for work
  - Recreation and sport
  - Sex life
  - Driving and traveling
  - Medication

### Anatomy of the rectum and anus

### Proctological conditions and operations
  - Hemorrhoids and hemorrhoidal disease
  - Perianal venous thrombosis
  - Abscess
  - Fistula
  - Fissure
  - Anal skin tags
  - Anal tumors
  - Prolapse
  - Incontinence
  - Pilonidal sinus

### Mucofalk® information
Proctology is concerned with diseases of the rectum and anus. Common conditions are hemorrhoids, fistulas, and fissures. Most diagnoses are benign in nature.

With increasing age, functional deficits also become more common, for example general pelvic floor weakness, incontinence, and other disorders.
The majority of proctological conditions respond well to conservative treatment, for instance with medication or topical treatments, meaning that surgery is usually not necessary. However, acute infections, such as abscesses or malignant diseases, in terms of anal or rectal carcinoma, generally require surgery. There are some proctological disorders for which surgery is recommended, in particular when conservative measures have been unable to cure the condition, or in order to prevent the condition from progressing.

Small procedures can easily be carried out using local anesthesia. A locally acting anesthetic is injected as slowly as possible into the tissue using a small needle. Small changes in the tissue can then be excised or tissue samples taken. Surgical treatment for what is known as perianal thrombosis, painful blood clots at the anus, can also be carried out as an outpatient procedure.

However, for most proctological operations anesthesia is recommended and useful – either as partial anesthesia (spinal anesthesia) or as a brief general anesthesia. This is essential for successful, pain-free surgery on this very sensitive part of the body. However, just as important as a well-executed operation is appropriate wound care following the procedure. After proctological procedures, the healing process can easily take several weeks. This booklet is intended to inform you about the various conditions and surgical procedures and to help you recover as fast as possible.
Pain

Pain is, of course, of great concern anytime you undergo a surgical procedure, especially on a very sensitive body part such as the anus. If surgery is carried out only or predominantly on the rectum and not the anus, there is very little pain or none at all. This is because the bowel itself has no real pain fibers. Conversely, anal surgery can undoubtedly prompt pain. However, this can almost always be controlled using topical ointments containing a local anesthetic, combined with oral pain killers. Frequently used analgesics are paracetamol, ibuprofen, and metamizole. Individual intolerances or allergies must, of course, be taken into account. If the pain is more severe, especially in the early postoperative phase, stronger pain killers can be administered by injection. It is important that you visit your doctor in due time rather than waiting until the pain has become severe or even unbearable.

It is also recommended not to abruptly stop taking pain relievers, but to rather reduce the dose over several days, so that you can react promptly if you realize you are not yet sufficiently pain-free. It is a good idea to take pain medication about half an hour before cleaning the wound (see page 8), in order to reduce the pain when changing your wound dressing.

The good news: Pain after proctological surgery usually fades away quickly and pain killers are usually only needed for a few days. Of course, the pain experienced will depend on the extent of the surgical intervention but also on a number of individual factors.

**Important:** Worsening or recurring pain may indicate complications, and your doctor should be notified immediately.
Digestion and bowel movement

Normal digestion and bowel movement are crucial to good wound healing. In particular, it is important to ensure that the stool is sufficiently soft. This prevents mechanical irritation of the internal and external wounds and allows pain-free defecation. Straining should be avoided when going to the toilet.

Apart from a balanced, fiber-rich diet, the most important issue is to ensure sufficient fluid intake of at least 1.5–2 liters per day. Mineral water, diluted fruit juices, and green or herbal teas are suitable fluids. Taking ispaghula husk (Mucofalk®, for example) is also recommended, especially in the first weeks after surgery. Ispaghula husk, also known as psyllium seed husk or plantago ovata husk, is a form of fiber with a particularly high bulking capacity, which is why it is also referred to as bulking agent. It ensures soft stools and helps relieve constipation in particular, although it can also help with diarrhea. Ispaghula husk can be taken over an extended period of time, if necessary.

The husk of the plantago ovata plant (also known as ispaghula, left) swells up to over 40 times its dry volume (right)
Wound care and anal hygiene

Above all, meticulous wound care is required after procedures that leave a more or less external wound opening in the anal region. In particular, these include surgery on abscesses, fistulas, or hemorrhoids, or removal of a tumor. Wounds around the anus are as a rule not closed (as opposed to a laceration in the face, for example), because such closed wounds would inevitably become contaminated, almost always leading to an infection. This would not only cause renewed pain, swelling, fever, etc., but would also require a further surgical procedure to reopen the wound. For this reason, these wounds are not stitched up, but are left open to undergo what is called wound healing by secondary intention.

Anal wounds are ideally treated using water. It is recommended to use pure water at a pleasant temperature with nothing added to it. Cleaning is still easier if a bidet is used. Otherwise, a sitz bath or rinsing is possible. It is entirely sufficient to clean the wound gently for 1–2 minutes.
How often should the wound be cleaned? It is important to clean the wound after every bowel movement, and additionally 2–3 times a day. The wound should then be carefully dabbed dry with a cloth, a pad, or simple paper towels. You should not rub hard in order to avoid causing unnecessary pain or bleeding. After you have finished cleaning the wound, apply a dry, non-sterile wound dressing or pad. This serves to soak up the moisture and can be replaced several times during the day independently of wound cleaning. An alternative, less expensive option is to use paper tissues. However, these are not as sturdy as compresses.

*Slight traces of stool on the wound dressing after surgery is completely normal and does not indicate incontinence. It will disappear after a few days or weeks, if the sphincter is intact.*

Mild bleeding in the first 1–2 weeks is normal and is not a cause for concern. However, a steady flow of blood from the wound is not normal. If this is the case, you should consult your surgeon. Until the doctor can inspect and treat the wound, you should keep pressure on it, for example by applying multiple compresses and then pressing or sitting on it.

You should not use moistened toilet paper on an open wound, as the various additives can cause pruritus, burning, and local irritation.
Incapacity for work

Incapacity for work depends, among other things, on the severity of the condition, the surgical procedure, and the postoperative healing, but also on individual factors, such as the type of work or the patient’s age.

For small outpatient procedures, for instance the removal of a perianal venous thrombosis, a few days off work are usually sufficient. For larger procedures, such as complicated fistula surgery or abscess incisions, incapacity for work can last even longer than a month. Predominantly sedentary work, or work that requires long car journeys, can also extend the period of sick leave.

Recreation and sport

As with incapacity for work, the ability to resume leisure activities and sport or physical exercise can vary greatly. **As a general rule, you must not visit public swimming pools or saunas until the anal wound has completely healed and closed up.**

**Important:** No kind of movement or activity should cause pain or bleeding in the region of the wound.
Exercise which involves a lot of sitting and/or sweating, or tough body movement, is not recommended until the wound has completely healed. This includes cycling, rowing, football, handball, and martial arts.

However, walking and light, uniform movements, such as gymnastics, are beneficial to wound healing. Careful power walking or light jogging is also possible once the first phase of wound healing has been successfully accomplished.
Sex life

This is, of course, a delicate issue, especially as the region operated upon is very close to the sexual organs. The most important thing is that you must feel comfortable and not force anything.

Depending on the type of surgery, it is completely normal, and sensible with regard to hygiene, to abstain from sex in the first days or weeks postoperatively. An understanding and considerate partner will certainly respect this. As you become more confident with the wound management, and – most importantly – as the wound continues to heal, there is no reason not to enjoy an active sex life.
Driving and traveling

*Long car journeys*, that is longer than one hour, should be avoided until the wound has (almost) completely healed. You will notice yourself how comfortable or uncomfortable it is to sit in the same position for a long period of time.

If an extended journey cannot be avoided, due to professional activities for example, you must take breaks often enough to relieve the pressure on your backside and the wound. A silicone ring, which can be purchased in medical supplies shops, might also help to relieve pressure on the wound area. Change the wound dressing regularly on the toilet to avoid moisture around the wound. Pain or bleeding are signs that the wound has been strained too much, and should be avoided at all costs.

Similar considerations apply to long flights, since it is not possible to move around very much while on board. You should therefore try to avoid long trips by airplane in the early postoperative period.

Train journeys, however, are perfectly possible, because you can stand up and walk around every now and then.
Medication

Most medications, for example for high blood pressure or a weak heart, can and should be taken as normal. You should stop taking metformin, a special diabetes drug, according to your anesthetist’s or surgeon’s recommendation.

You should pay particular attention to medication that affects blood clotting (for example heparin, warfarin, aspirin, clopidogrel, or newer anticoagulants, which are often prescribed for thrombosis, atrial fibrillation, or heart valve replacement). In the case of a scheduled procedure, it is important for you to inform your doctor accordingly.
Diagram of the anatomy of the rectum and anus

- Rectum
- Bowel muscle
- Mucous membrane of the rectum: *not sensitive to pain*
- External anal sphincter
- Internal anal sphincter
- Hemorrhoids
- Anal skin: very *sensitive to pain*
- Skin in the anus / anal canal: normal skin
- Anal gland (crypt)
- Transitional mucosa between rectum and anus
Hemorrhoids and hemorrhoidal disease

Hemorrhoids are thickened blood vessels in the lower part of the rectum and are part of normal human anatomy. They have an important function for fine continence.

However, in the case of enlargement, bleeding, or itching they become troublesome. Accordingly, when symptoms are present, it is more accurate to refer to hemorrhoidal disease.

Grade 1 hemorrhoids (not externally visible)

Grade 2 hemorrhoids (prolapse possible during bowel movements)
The vast majority of patients suffering from hemorrhoidal disease can be treated conservatively.

This also includes treatments such as sclerotherapy (injection therapy) and rubber band ligation, which are carried out as outpatient procedures (see pages 18/19).

Grade 3 hemorrhoids (prolapse during bowel movements, can be pushed back in)

Grade 4 hemorrhoids (lasting prolapse)
In *sclerotherapy*, the hemorrhoids are treated with a special solution that is injected with a syringe.

In *rubber band treatment*, a rubber band is tied around the hemorrhoids to cut off the blood supply.

Both treatment options cause hardly any pain when they are carried out correctly. **Typically, the patient will temporarily experience a certain dull feeling of pressure in the region of the anus, but this usually disappears completely within a few hours.**
It should be kept in mind that the rubber bands will drop off after 5–10 days and this can lead to slight bleeding. Patients who are taking medication that affects blood clotting (see page 14) should therefore take particular precautions. Heavier bleeding must always be treated by a doctor.

For advanced cases of hemorrhoidal disease, there are various surgical options.

Traditional procedures involve surgically removing the enlarged hemorrhoidal cushions. This will cause a certain amount of pain in the first 1–5 days, but pain killers can treat this effectively. Since this surgery usually leaves external open wounds, the principles of wound treatment set out above should be observed. The stool needs to be kept soft by means of stool regulation (for instance by using a bulking agent). If there are multiple enlarged hemorrhoids, stapler surgery can also be carried out. This involves using a special stapler to excise the tissue of the rectum just above the actual hemorrhoids, which reduces the blood flow to the hemorrhoids. Stapler surgery is noted for causing very little or no pain, provided that it is carried out properly. However, if the staples are placed too low in the region of the anus, which is very sensitive, this can result in very severe pain, meaning that subsequent surgery will be required to remove some of the staples. Stapler surgery does not leave any external wounds, so there is no need for wound care. But it is important to ensure soft stools following this type of surgery, too.
**Perianal venous thrombosis**

If a blood clot forms in the venous plexus around the anus, this leads to a fairly painful and acute swelling at the anus. Smaller findings can easily be treated via outpatient surgery with local anesthesia.

The wound treatment (see page 8) does not usually cause problems and the wound only takes a few days to heal. Pain relievers are rarely needed, and when they are, usually only in the first days after the procedure. Consistent stool regulation is important in order to keep the stool soft, for example using a bulking agent.
Abscess

An abscess in the region of the anus is an acute condition which requires prompt hospitalization and immediate surgery. It is a painful bacterial inflammation originating from the small glands which are located in the anal canal.

Abscess surgery should always involve a wide incision, which entails a correspondingly long healing phase requiring good wound care. The pain before surgery is much more severe than afterwards, and it mostly disappears entirely within a few days.
**Fistula**

An anal fistula is an abnormal communication between the anal canal and the surrounding skin. In most cases a fistula is the result of an anal abscess, although fortunately not every abscess necessarily leads to a fistula. Fistulas can be classified into various types, depending on their relationship to the sphincter. The problem when treating fistulas is that they tend to recur if the surgery used is not radical enough. However, surgery can damage the sphincter severely enough to cause incontinence. It is thus necessary to find the “happy medium,” as it were. There are different surgical approaches in fistula surgery, and an experienced surgeon must carry out a procedure that is as gentle as possible while also having a good chance of cure. The choice will be based on the location of the fistula, the patient’s history, previous interventions, age, and gender. Depending on the method of surgery, there will be a more or less large external wound, which should be treated according to the principles of wound care as set out in the respective section (see page 8). The importance of stool regulation, for instance by using a bulking agent, also applies after fistula surgery.

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Suprasphincteric fistula

Transsphincteric fistula

Submucosal fistula

Intersphincteric fistula
Fissure

A fissure is a painful tear in the anal skin, accompanied by fresh bleeding, often caused by excessively hard bowel movements. The acute form is always treated conservatively. Along with painkillers and special proctological ointments, stool regulation using bulking agents (ispaghula husk, for example) is essential, in order to avoid repeated injury to the wound. Most acute fissures will heal completely.

The chronic form involves a wound which persists for more than 3–6 months. This wound may bleed from time to time, can be painful, and often causes troublesome soiling, since the “fine sealing” is disrupted. Chronic fissures are treated surgically by careful excision of the damaged anal tissue while meticulously preserving the sphincter muscle located underneath.

This leaves a small open wound at the anus which generally heals well if proper wound care is carried out.
**Anal skin tags**

Anal skin tags are harmless small or large flaps of skin which form around the anus. They can be caused by thrombosis or other proctological conditions or simply appear spontaneously. If they are very large or surround the whole anus, they can interfere with anal hygiene. Contamination in or between the skin tags can lead to troublesome itching or inflammation, causing bleeding and pain.

If this occurs, the skin tags can be removed as an inpatient or outpatient procedure. The resulting wounds are usually small and can be easily managed, meaning that they typically heal after a short period of time.
Anal tumors

Anal tumors can be benign or malignant, fortunately the vast majority are benign in nature. Malignant tumors are also known as anal carcinomas. These necessitate specialized treatment, usually a combination of radiotherapy and chemotherapy. Very small or rather large carcinomas are treated with surgery. Follow-up monitoring should be carried out by a specialist.

The diagnosis of anal carcinoma is often delayed because patients – but also doctors – incorrectly assume that it is a persistent case of hemorrhoidal disease.

**Important:** All findings at the anus (except for harmless skin tags, see page 24) which do not disappear after 3–4 weeks of consistent treatment should be assessed by a specialist, i.e. a proctologist.

Benign tumors are almost always surgically removed and histologically examined in order to establish whether there is indeed no cancer. Some findings are classified as sexually transmitted infections, including what are known as condylomata or genital warts. In this case, an additional oral or local treatment with medication may also be necessary. With sexually transmitted infections, it is very important that the patient’s sexual partners are also treated, to avoid a new infection after recovery (known as the “ping-pong effect”).

Wound treatment after this kind of surgery is usually not problematic, as long as the tissue was not irradiated, as for example in the case of an anal carcinoma. In this case the recovery process can be significantly prolonged, and must be monitored more closely.
**Prolapse**

Prolapse is a condition in which an organ slips below its normal position. In proctology, this can involve hemorrhoids (known as an anal prolapse), which is relatively common, or more rarely a rectal prolapse.

While an anal prolapse is always operated on “from below,” a rectal prolapse can also require a more extensive procedure via the abdomen. This depends on the extent of the prolapse, the age of the patient, concomitant diseases, etc. Anal prolapse surgery can also be carried out using the stapler method in suitable cases (see page 19).
Incontinence

Fecal incontinence, unlike urinary incontinence, is still very much a taboo subject. Many of those affected suffer considerably and live in social isolation. A professional treatment approach is all the more important since in almost all cases very effective treatment is possible.

Fecal incontinence is classified in three degrees:
I gas incontinence
II liquid stool incontinence
III solid stool incontinence

Treatment approaches differ considerably depending on the nature of the condition. Furthermore, the exact cause, the age of the patient, and many other aspects need to be taken into account. In every case, treatment is initially strictly conservative. The most important factor initially is stool regulation, in particular in the event of (very) loose stools or diarrhea. Taking bulking agents such as ispaghula husk is suitable for this purpose. Medications which have a stronger thickening effect on the stool may also be used, for example loperamide. Along with medication, physical therapy with special pelvic floor exercises should always be prescribed. In a very large number of cases, consistent conservative treatment leads to significant improvement of the symptoms.

Further treatment options are only needed in exceptional cases. These options include biofeedback training, implanting a pacemaker for sacral nerve stimulation or modulation, or surgical reconstruction of the anal sphincter when it is disrupted.
Pilonidal sinus

Strictly speaking, a pilonidal sinus is not a proctological condition, as the infection is not located in the region of the anus. Instead, the condition affects the upper region of the anal cleft, that is the region of the coccyx.

The infection is caused by hairs growing into deeper layers of the skin, i.e. hairs that extend inward instead of outward. It affects predominantly people with a large quantity of body hair – and thus many more men than women – who spend a lot of time sitting. The colloquial expression “Jeep disease” characterizes this perfectly. A distinction must be made between the acute and the subacute or chronic form. The acute form involves a painfully reddened abscess that requires immediate relief. In suitable cases, this can be carried out using local anesthesia brings about an immediate improvement of the symptoms. Further surgical treatment is usually required a few days or weeks later. There is a number of different surgical approaches used to treat pilonidal sinus, which is an indication that there is no procedure which always leads to complete recovery in every case. Alongside various reconstructive operations, a still very common and effective method is the wide removal (excision) of the diseased tissue.
As with open wounds at the anus, the wound here is not closed, but left to undergo what is known as secondary intention healing (see page 8). Wound care accordingly involves rinsing the wound 2–3 times daily with water. The wound is then covered with a wound dressing, predominantly to protect the underwear. Pain tends to be minimal and mostly subsides after a few days. Depending on the size of the wound, the healing process can easily take a number of weeks or months. However, most patients can return to work after 2–3 weeks at most, unless it is an entirely or mostly sedentary job – this, of course, also includes regular long car journeys – which could significantly prolong the healing process.
**Mucofalk® Orange**  
Granules

**Active agent:** Ispaghula husk  
(Plantago ovata seed shells), ground

**Bulking agents in Mucofalk®**  
The bulking agents in Mucofalk® include the seed shells of certain plantain species (Plantago ovata). These vegetable substances promote bowel movements by means of bulking as they bind water; their indigestible fiber increases the stool volume.

In addition, bulking agents promote an increase in the bacterial flora, which also increases the stool volume. The fuller the bowel, the more it is stimulated into activity, and, by binding water, the consistency of the stool becomes softer.

Vegetable bulking agents of this kind can be used safely for extended periods.

**Indications**  
Chronic constipation, disorders in which it is desirable to facilitate bowel emptying by softening the stool (in patients with anal fissures and hemorrhoids, for example, and following surgical procedures involving the rectum); for adjunct treatment of diarrhea of various causes, conditions in which an increased daily fiber intake may be advisable, such as in constipation-predominant irritable bowel syndrome.
Dosage and instructions for use

Unless otherwise prescribed, adults and children over the age of 12 years take the contents of one sachet or one level tablespoon of Mucofalk® granules mixed with at least 150 ml of water two to three times per day for chronic constipation and for disorders in which it is desirable to facilitate bowel emptying by softening the stool (following surgical procedures, for anal fissures, and hemorrhoids, for example). When used as adjunctive therapy for diarrhea and irritable bowel syndrome, adults and children over the age of 12 years take the contents of one sachet or one level tablespoon of Mucofalk® granules mixed with at least 150 ml of water two to six times per day.

1. Never take the preparation in its dry form, as this can lead to difficulty swallowing.
2. Place the contents of one sachet or one level tablespoon of Mucofalk® in a glass.
3. Slowly fill the glass with at least 150 ml of cool water.
4. Carefully stir with a spoon and ensure that no clumps form. Drink immediately. Do not drink while lying down.
5. Drink a second glass of water afterwards.

Notice
Please also read the patient information leaflet.
Mucofalk® Orange. Active ingredient: Ispaghula husk, ground (Plantago ovata seed shells). Composition: 5 g of granules (1 sachet or 1 level measuring spoon) contains: active ingredient: 3.25 g of Ispaghula husk, ground. Other ingredients: sucrose (saccharose), citric acid, dextrin (from maize or potatoes), sodium alginate, sodium citrate 2 H2O, orange flavouring, sodium chloride, saccharin sodium (contains sodium compounds and sucrose). Indications: chronic constipation, conditions in which easy defaecation with soft stool is desirable, e.g. anal fissures, haemorrhoids and in cases of painful defaecation after rectal or anal surgery, supportive treatment in diarrhoea of various causes, conditions in which an increased daily fibre intake may be advisable, e.g. in constipation-predominant irritable bowel syndrome. Contraindications: hypersensitivity to ispaghula (plantago, psyllium) or any of the other ingredients, any sudden change in bowel habits (that persist longer than 2 weeks), undiagnosed rectal bleeding, failure to defaecate following the use of a laxative, difficulty in swallowing and other throat and pharyngeal problems, stenoses of the oesophagus, the cardia or gastrointestinal tract, potential or existing intestinal blockage (ileus), paralysis of the intestine or megacolon syndrome, children under 12 years of age. Side effects: Flatulence and feeling of fullness (generally disappear in the course of further treatment). Abdominal distension and faecal impaction may occur and there is a risk of ileus or oesophageal obstruction, if Mucofalk® is swallowed with insufficient fluid. Hypersensitivity reactions through oral administration or contact with the skin, including rhinitis, conjunctivitis, bronchospasm and in some cases anaphylactic shock. Cutaneous reactions such as exanthema and pruritus. Interactions: See patient information leaflet. Dosage Instructions: adults and adolescents from over 12 years: 1 level measuring spoon or the contents of one sachet after stirring into plenty of fluid 2-6 times daily. Date of information: 03/2015