GUIDE
CONTINENT POUCH
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Dear patient,

The purpose of this brochure is to give you important information before and after the creation of a continent pouch and its connection to the abdominal skin (pouch). It will help you to adjust more effectively to your new situation. You will also be given valuable information about potential problems that may occur with the pouch construction. The brochure gives you a lot of factual information but is not a substitute for personal advice already given by your physician.

If it is necessary to remove your own bladder because of malignant bladder disease or severe malformation of or damage to the bladder, a pouch can be formed from your own bowel to collect the urine. This is emptied regularly by you using a disposable catheter.

This brochure lists many potential problems which may occur with a pouch. The overwhelming majority of patients, however, cope with a pouch very well. And if there are problems, please seek advice from your Consultant or Physician.

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CAUSE & PREREQUISITES OF POUCH CREATION

The bladder is a hollow organ in the abdomen. It stores urine – a mixture of water, salts, toxins and proteins which is formed by purifying the blood in the kidneys. The bladder has a muscle wall which allows it to become larger or smaller according to whether urine is stored or excreted. The bladder wall is lined with several layers of cells known as transitional cells.

The urine travels from the kidneys via tube-shaped organs, the ureters, into the urinary bladder and leaves the urinary bladder via another tube, the urethra.

There are various reasons why it can prove necessary in medical terms to remove the bladder:

Because of a malignant tumour, inherited malformations such as bladder extrophy (or as part of acquired bladder diseases such as severe urinary incontinence) or shrunken bladder which can no longer be controlled in any other way. In such cases, a continent (urine-tight) reservoir in the form of a pouch (non-orthotopic reconstruction) is constructed from the bowel. This reservoir in the abdomen is emptied by patients themselves several times a day using a catheter.

Besides this method, there is also the option of creating a moist side outlet for the urine or stoma (conveying the urine to the skin through a short section cut from the small or large intestine: ileal, colonic or sigmoid conduit, from the Latin word conducere meaning to lead, or by direct suture of the ureters to the skin: ureter skin fistula). Or other urine-tight

Bladder tumour during cystoscopy

Image supplied by: SPC Nottwil
forms of urinary drainage such as orthotopic reconstruction of the bladder or pouch (a bladder made from bowel tissue connected to the patient’s own urethra) or implantation of the ureters into the bowel (Mainz pouch II, uretrosigmoidostomy).

What procedure is the most suitable will be decided for the individual patient on the basis of considerations such as manual dexterity, primary and concomitant diseases, the condition of the bowel and, in the case of tumour patients, by the nature and extent of the tumour. The final decision on which procedure to choose is often taken only during the operation.

**WHEN CAN A POUCH NOT BE CREATED**
- In cases of poor kidney (blood creatinine > 1.8 mg/dl) or liver function. Because deterioration in kidney and liver function may occur when constituents of the urine are reabsorbed from the pouch.
- If self-catheterisation or catheterisation by other means is not possible (e.g. after amputation of an arm, in cases of severe trembling or severe visual disorders).
- Damage to the bowel means that it is not possible to use the required amount of bowel to form a pouch (damage by previous radiotherapy, chronic inflammation such as Crohn’s disease or ulcerative colitis, cases where longer sections of the bowel have already been used after partial removal of the bowel or for previous discharge of urine).
- If life expectancy is less than one year, the creation of a pouch must be carefully considered.
The gastrointestinal tract, which begins in the throat, is several metres long and similar to folded tubing. It consists of the alimentary canal, stomach and the various sections of the small and large intestine and ends at the anus.

Depending on the shape of the pouch, it consists of a larger or smaller piece of large intestine, small intestine or of the end of the small intestine with the beginning of the large intestine. The bowel portions are cut from the whole bowel. The remaining bowel is sutured together again.

A portion of bowel is diverted and made into urinary collection pouch. The ureters are cut away from the patient’s own diseased bladder and sutured anew into the pouch. The pouch is then connected to the hollow of the navel (called the navel stoma) via a hidden continence mechanism (which does not tend to leak). If this is not possible, the nipple is sutured to another region of the abdomen. It consists either of a narrowed piece of small intestine or of the appendage of the caecum. The technique used to suture a pouch prevents excessive pressure from forming. The pouch shape prevents the urine from flowing out through the outlet valve of the pouch, known as the nipple, or back to the kidneys under high pressure. To empty the urine, the pouch must be emptied via the navel stoma using an intermittent catheter (as it cannot be emptied spontaneously). Patients have to do this themselves several times a day (self-catheterisation).

**ADVANTAGES OF A POUCH**
- generally continent (over 90 %)
- relative protection from infections
- hardly any impairment of quality to life as there is a good cosmetic result

**DISADVANTAGES OF A POUCH**
- self-catheterisation requirement
- possible vitamin deficiency (B12, folic acid)
- potentially increased incidence of diarrhoea
- increased risk of gall or kidney stones

Remedy: thorough ability to self-catheterise, compensate vitamin deficiency, high-fibre diet, medicines and foods that promote constipation, regular monitoring and sufficient fluid intake.
EMPTYING URINE
(catheterisation technique)

The following rules have been routinely tested when dealing with continent pouch:

- Practice catheterisation several times with experienced nurses or carers.
- Wash your hands before catheterisation with unperfumed soap. You do not need to wear gloves nor do you generally need to use disinfectant.
- You can catheterise standing, sitting or lying down.
- The nipple opening can be cleaned with cotton wool soaked in soap or alcohol (or by whatever means you have been taught by your Healthcare Professional).

The catheter diameter is selected depending on stoma diameter and mucus secretion. Catheters which are too thin may kink and those which are too thick are difficult to insert.

As a rule, catheters with a diameter of 14–16 Charrière (1 Charrière = 1/3 millimetre) are used. There are many types of intermittent catheters on the market. Some are pre lubricated with gel, some need lubricant adding and some require ‘coating’ activation in order to become lubricated. Your Healthcare Professional will be able to best advise you on which is the best product for you.

Your assessment should conclude which is the best catheter for you. In normal circumstances, you should be given the opportunity to try a straight tip (Nelaton), a curved (Tiemann) or a flexible Ergothan tip. Whether a straight (Nelaton) or curved (Tiemann) catheter tip is more suitable or also a flexible Ergothan tip, will be tested during the self-catheterisation assessment. Occasionally, catheters with extra large “eyes” (outlets) are better suited to complete the drainage of the mucus in the pouch.

The type of catheter sometimes has to be changed because of changes in the stoma (narrowing of the scarring, subsequent surgery). Individual, sterile packed disposable catheters are used.

The catheter is inserted into the pouch opening (stoma and generally the navel) making sure the catheter surface which penetrates the pouch is not touched with the hands. This is achieved by taking hold of the catheter right at the back during insertion or by holding the catheter with the opened packaging when advancing it. When learning self-catheterisation under instruction from nurses or carers, patients learn to recognise the direction in which they have to push the catheter. When the catheter is advanced carefully, which is usually achieved without causing pain, the catheter tip reaches the pouch after overcoming minor resistance. If you notice resistance, which cannot be overcome by careful pressure, rotate the catheter a little. Now the urine begins to flow out. If the flow of urine stops, move the catheter carefully up and down. In this way, the residual urine can also flow out of the pouch. The pouch should always be completely emptied. Complete emptying of the pouch can be assisted by pressure on the stomach, by abdominal pressure or by changing the position of the catheter. Depending on the patient, it takes between two and thirty minutes to empty the pouch. The urine is simply emptied into the toilet or into a collecting vessel via the catheter. If required, catheters with a urine bag already attached may be used. When the pouch has been completely emptied, remove the catheter, dispose of it and wash your hands.
It is common to have a production of mucus following a pouch creation. In some cases, the mucus may obstruct the catheter. Mucus formation frequently reduces after several months as the mucus-producing cells known as goblet cells become fewer. Some patients have to rinse permanently, however. The frequency of rinsing depends on the degree of mucus formation. Some patients have to rinse at every catheterisation; others only very rarely or as required (obstruction of the disposable catheter).

As a rule, the pouch should be emptied by the clock immediately after the operation and later every 4 to 6 hours so that the quantity of urine emptied is generally not more than 600 ml. It should also be emptied once at night as a rule. After the surgical wound has healed many patients perceive that the pouch is full and needs emptying through a sensation of fullness, pressure or cramping. If there is any doubt and for monitoring purposes as well, the quantity of urine emptied over one day (24 hours) can be measured from time to time using a measuring cup (e.g. plastic household measuring cup). Not emptying the pouch frequently enough may result in overdistension of the pouch which in the long term could cause kidney damage. In addition, the highly stretched mucosa of the pouch has a poorer blood supply and is thus more vulnerable to infections.

In the case of inflammation, blockage by mucus, substantial overdistension of the pouch or during chemotherapy, it may be worth using an indwelling catheter for a period to unblock the pouch continually, so that inflammation regresses, the mucus reduces in quantity and the pouch recovers. If it is impossible in certain situations to empty the pouch using a disposable catheter, an indwelling catheter can also be inserted temporarily to stretch the stoma. In this case, the indwelling catheter is emptied into a urine bag (attached to the bed or the leg).

DIFFERENT TYPES OF CATHETER TIPS:

**ERGOTHAN TIP**
Our patented Ergothan tip is the most flexible and perfectly adapts to the urethral anatomy. It adjusts optimally to every movement and glides easily and gently into the bladder. The conical form enables a very gentle insertion with minimal pressure on the sensitive urethral mucosa.

**NELATON TIP**
For the anatomically normal urethra the straight cylindrical Nelaton tip is easily used.

**TIEMANN TIP**
The curved Tiemann tip ensures highest control during catheterisation of the male urethra.
The need for a cover of the continent cutaneous stoma should be assessed and the best suitable chosen. Special plasters are available with a layer called a hydrocolloid layer which can absorb the escaping urine to some extent. It is important to watch out for adverse effects on the skin caused by the escaping urine or the plaster. The make of plaster may have to be changed if there is more severe skin irritation. If the stoma leaks substantially it can be treated with a combination of urine bag and adhesive pad, as is also the case with a moist side outlet for the urine.

**FACTORs MAKING IT MoRE DIFFICU LT To LEARN To EMPTy ThE POUCh WItH ThE CATHeTeR**

- anxiety
- unclear instructions
- lack of motivation to learn self-catheterisation
- lack of instructions

Remedy: speak to physicians, nurses and other people with pouches. Access the support material available to you either on the internet or from the hospital literature library.

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**REHABILITATION & AFTERCARE**

Rehabilitation

Within 14 days of discharge after creation of the pouch patients can start follow-up rehabilitation, which generally lasts three to four weeks, preferably as an in-patient in a specialist urological rehabilitation department. Rehabilitation is organised by social workers in the acute department. Patients have the right to express their wishes and exercise the right to choose the rehabilitation department. Rehabilitation after pouch creation is an important part of the whole treatment process. During rehabilitation, patients can regain their strength after the procedure and short-term assessments of the pouch and the resulting changes/advances in the healing processes are monitored until stabilised. In addition, patients learn to cope with the pouch and, in particular, with the correct way to perform self-catheterisation.

The most important aim of rehabilitation is to improve quality of life after pouch creation. The medical team develops a rehabilitation plan tailored to the physical and psychological needs of the patient in question. The procedures in the plan help patients to resume their usual activities as soon as possible. Pouch patients and their families can discuss all questions about rehabilitation and aftercare with the medical team after creation of a pouch.

Patients with a pouch should learn to accept the changed body function and learn to look after themselves through self-catheterisation. They should also learn, through independent evaluation and assessments, to recognize the early signs of emerging problems (complications). The patient’s metabolic condition (overacidification = metabolic acidosis, vitamin B12 deficiency) is stabilised by alkali citrate-containing medicines, bicarbonates, suitable bicarbonate-rich mineral waters and treatment with vitamins.
Psychology
Psychosocial, psychological or psychiatric support (for working through problems associated with a tumour as well) is offered during rehabilitation. At the request of the patient and/or family, contact with psychiatrists or psychologists can be arranged. This specially trained group of therapists offers support in working through a disease and promotes psychological stabilisation after pouch creation and confrontation with the “cancer” diagnosis, if necessary. Specific subjects are discussed such as body image and experience, the connection between pouch and sexuality, feelings of helplessness, depression, anxieties about loss or the future and reintegration in social activities. Contact with other pouch patients can also help to overcome the problems mentioned.

Care by social workers
At the request of the patients or their family, contact can also be arranged with a social worker. Special subjects in this case are advice on rights under social security legislation, such as problems in the workplace caused by absenteeism associated with the disease, financial concerns, questions about pension rights or the issue of a pass for the severely disabled in particular.

Aftercare
Lifetime aftercare for pouch users is given by a specialist urologist. In particularly acute problems, which may also require surgery, patients can contact the department of urology which undertook the operation or another urology department. In the first 2 years after the operation, assessments take place every 2–3 months as a rule, then every six months up to 5 years after the operation and once a year thereafter. The intervals between examinations depend on the primary disease (benign or malignant?) and kidney function in particular.

At assessments, blood values are given special attention. It is important to ensure that the blood salts do not get into a mess and that kidney and liver values do not increase. In addition, testing should be carried out as required to ensure that the blood is not becoming too acidic. This risk results from the reabsorption of urine constituents into the body by the bowel mucosa of the pouch and if fluid intake is too low. Shortening of the bowel can result in reduced absorption of vitamin B12 into the body and thus in anaemia. Vitamin B12 should be monitored, therefore, from the 3rd year after the operation or simultaneously administered. If bladder cancer has been present, the urine should be tested at least once a year for malignant cells (urine cytology) in the mucosa of the ureters and renal pelvis.
Disorders of bowel movements (diarrhoea, tendency to intestinal obstruction = subileus) are generally overcome after approx. one to three months by specific nutritional advice and appropriate medicines. Sometimes it is not until adhesions occur that later intestinal problems, for example incipient intestinal obstruction (subileus), are induced. When portions of the bowel are interposed in the urinary tract with prolonged urinary retention as is the case with a pouch, growths, generally benign, can be expected to occur more frequently in the intestinal mucosa, which means that regular endoscopic assessments (cystoscopy, pouchoscopy) are recommended at least once a year from the third postoperative year.

**COMPLICATIONS**

Disorders in the pouch itself

Regular ultrasound assessments should ensure that the kidneys continue to drain routinely and that the pouch has completely emptied itself after catheterisation. If required, X-ray examination of the kidneys and efferent urinary tract (intravenous pyelogram) or of the pouch (pouchography) can be performed.

Rare cases of leakage which sometimes only occur later (< 10 %) or narrowing of the stoma (10–15 %) can be rectified by an operation (recreation of the stoma for leakage; distension, slitting or open surgery in case of closed stoma), if this cannot be achieved through a stoma plaster or another catheter.

Bleeding during self-catheterisation is generally harmless and transient. More severe injuries to the stoma (sometimes caused by self-catheterisation) heal either spontaneously or after insertion of an indwelling catheter for a period ranging from several days to weeks. Twisted catheters very rarely happen during self-catheterisation. If this occurs, attempts are made to remove the catheter via cystoscopy. Perforation (piercing through) or tearing (rupture) of the pouch is remedied either by insertion of an indwelling catheter for longer periods or by an operation.

Special attention should be paid in particular to mucosal obstruction of the pouch which can lead to overfilling and backlog in the kidneys. This may promote inflammation with fever, kidney ailure or the formation of urinary stones.

With straightforward obstruction, patients can rinse the pouch themselves during catheterisation. In cases of prolonged obstruction, the pouch must be emptied by being rinsed out by a physician or during cystoscopy.

Bacteria are found in the pouch in 50–92 % of pouch patients. These should only be treated, when an infection occurs accompanied by discomfort (e.g. fever, chills, pain in the triangle between the lowest ribs and the spine, nausea, the urge to vomit, foul-smelling urine, more mucus than usual) and/or if there are increased inflammatory blood parameters.

If there is evidence of urinary stones in the pouch, the latter should be crushed and suctioned, which can generally be performed endoscopically (using an endoscope). Rinsing the pouch twice a week with physiological saline solution reduces the risk of recurrent urinary stones. In addition, if stones are present in the pouch, it is especially important to ensure sufficient fluid intake.
If it is suspected that there is an opening in the pouch, an abnormal connection with the skin (fistula) or a urinary stone in the pouch, an X-ray examination called pouchography can be performed via the stoma.

After several years, mostly benign tumours of the intestinal mucosa sometimes occur in the pouch. A once yearly inspection of the pouch (pouchoscopy) is therefore recommended from the 5th year after the operation.

In some cases, narrowing may occur at the junction of the ureters with the pouch. This results in a kidney backlog which is diagnosed in ultrasound examination as it does not generally cause discomfort. This narrowing must be dealt with surgically, which is sometimes performed from inside outwards (endoscopically) and if not by open surgery. If the function of the affected kidney is severely impaired, treatment is not required. The other healthy kidney then takes over detoxification of the body on its own.

In rare cases (approx. 5%), the pouch is converted into another form of urinary drainage (generally a moist side outlet for the urine) because of more serious problems.

**Metabolic disorders**

In terms of significant metabolic disorder, overacidification of the body (metabolic acidosis) can occur in approx. 50% of patients because of reabsorption by the body of urinary acid into the body. The mucosa of the pouch is intended to absorb substances into the body. In the long contact times between the pouch mucosa and the urine, increased quantities of acid substances from the urine can be absorbed into the blood. This causes overacidification of the blood.

Patients themselves often become aware of this through severe general and muscular weakness, pain in the arms, legs or abdomen, lethargy, loss of appetite, nausea, the urge to vomit or vomiting, dehydration, weight loss, accelerated respiration and a strikingly grey skin colour. As a result of overacidification, there is a shift in acid values and/or salts in the blood such as potassium or magnesium.

This overacidification of the blood can be compensated for by bicarbonate-containing medicines. Bicarbonate is a substance occurring naturally in the body and not a chemical drug. Because of the potential for overacidification, assessments of blood gas values (blood gas analysis) are necessary to monitor the extent of acidification of the blood. In many cases, the mucosa of the pouch changes with time, however, so that fewer urinary acids are absorbed into the body and bicarbonate need no longer be taken.

In rare cases, vitamin B12 deficiency followed by anaemia may occur. Many urologists, therefore, monitor vitamin B12 or administer the vitamin directly without monitoring from the 3rd year after the operation as a monthly injection. Until then, the reserves present in the body are generally sufficient.

In severe overacidification of the body, decalcification of the bone (osteoporosis) may occur later. Regular physical exercise and compensation for overacidification have a preventive effect here. It may prove necessary to measure calcium, vitamin D and what is known as parathyroid hormone in the blood. In the case of calcium and/or vitamin D, which are important for healthy bones, the former can be administered in the form of a medicine. Too high a parathyroid hormone can be reduced by drugs or an operation.

**Disorders of intestinal function**

Disorders of bowel movements caused by removing a piece of bowel of varying length for the pouch can sometimes result in transient disorders for 8–12 weeks such as nausea, feelings of fullness and loss of appetite. It is important at this time to eat a diet that does not cause flatulence. Because the bowel has been shortened, sometimes by 80 cm, there is a tendency to diarrhoea (short-bowel syndrome) in about 20% of patients because increased amounts of fluid are lost when stools are passed as well as bile acids and fats and further transport of the content of the bowel is accelerated. Foods (fats) which increase the risk of diarrhoea should generally be avoided. In persistent diarrhoea, drugs such as bile acid sequestrants or substances that have a calming effect on bowel activity help.

**Sexuality and fertility**

If the whole bladder also has to be removed when creating the pouch, the prostate gland with the seminal vesicle and possibly the nerves that are important for penile erection are also taken out in men and, in women, the uterus and possibly the ovaries and part of the vaginal wall are removed.

Men lose the ability to father a child as they have no seminal fluid which is produced in the prostate. They often lose the ability to have an erection. Specialists talk in terms of erectile dysfunction (impotence). The nerves responsible for erection run directly along the prostate and can be damaged during the operation. The capacity for erotic experience (sexual desire, libido) and capacity for orgasm are generally retained, however, even though seminal fluid is no longer ejaculated. This is called dry orgasm or lack of ejaculation. If necessary, there are several options for artificially inducing erection:
using medicines (Cialis®, Levitra®, Viagra®), by injection therapy into the penis (SKAT), by urethral tablet (MUSE), with a vacuum pump (VEHS) or a penile prosthesis which is implanted during surgery. So sexual intercourse can be made possible in many cases. The treating neurologist can explain the advantages and disadvantages.

Women can no longer become pregnant because they do not have a uterus. Many female patients have already passed the menopause, however, by the time their bladder is removed. The vagina may become narrower or shorter because of the operation. They still have the ability to have sex as a rule, but this may be impaired. If necessary, the vagina can be stretched or widened surgically. Sensations can also change. If you use water-soluble, non-perfumed, colourless lubricant, the penis can slide into the vagina more easily. In younger women, female hormones (tablets, hormonal patch, hormonal creams) may be useful after the ovaries have been removed if they experience more severe discomfort because of hormone deficiency (e.g. hot flushes or mood swings).

When there is a desire for children, samples of tissue from the ovaries or ova are removed during the operation in the case of a woman and sperm samples obtained before the operation in the case of a man can be frozen. Sperm cells can also be obtained from men after the operation from a sample of testicular tissue.

Urine pregnancy tests may yield false results after creation of a pouch when the uterus and ovaries are retained. In this situation, therefore, blood samples should be used in pregnancy tests.

During the late phase of pregnancy in a pouch patient, the pouch should be drained constantly with an indwelling catheter. The patient should give birth by Caesarian section.

**WARNING SIGNS THAT THE PATIENT SHOULD LOOK OUT FOR (A VISIT TO THE DOCTOR IS REQUIRED)**
- fever, chills, pain in the triangle between the lowest ribs and the spine, foul-smelling urine
- reduced excretion of urine
- the pouch cannot be rinsed
- lower abdominal pain
- sensation of fullness in the stomach
- a lot of blood in the urine (a few drops of blood can be related to catheterisation)
- general and muscular weakness, pain in the arms, legs or stomach, lethargy, loss of appetite, nausea, vomiting, dehydration, weight loss, accelerated respiration, grey coloured skin
Disorders of bowel function may occur, particularly in the first 8 to 12 weeks, because a substantial part of the intestine has been removed to form the pouch and the remaining intestine has been sutured.

For this reason, patients should refrain as far as possible from eating food that causes flatulence (cabbage, onion, leeks, garlic, peas, lentils, beans).

Drinks containing carbonic acid (fizzy drinks) should also be avoided at this time. Diarrhoea is common as the intestine has been shortened; so it is recommended that foods with natural laxative effects be avoided or consumed in very small quantities. Examples are very fatty foods but please seek further advice for a more elaborate list. Foods that promote constipation such as chocolate and bananas may help. Overall, fibre-rich food with a lot of vegetables and little fat and meat is preferable. Preserved fruit juice concentrates tend to make the urine alkaline, promoting infections and should be avoided. After the initial post-operative weeks have passed, an individual can find out which food and drinks cannot be tolerated and are generally to be avoided.

The level of fluid intake, as a rule 2.5–3 litres, should be selected so that 2–3 litres of urine are produced every day. It is higher than it is in people without a pouch, because fluid is lost through the pouch as well as via the kidneys and the shortened intestine can absorb less fluid into the body. This can include enjoying soups and favourite drinks. If fever or other factors lead to heavy sweating, fluid intake must be increased. Too high a fluid intake (more than 3.5 litres) should be avoided, as the salts may be lost from the body. In addition, catheterisation then has to be more frequent which increases the risk of urinary infection. If fluid intake is too low, there is a danger of mucosal obstruction, stones or infections in the pouch arising.

The formation of mucus and tendency to urinary infections can often be reduced by drinking approx. 2 x 150 ml cranberry juice (the American cranberry comes from North America; look for the juice in well-stocked supermarkets). Alternatively, 1 cup of herb tea can be drunk 4 times daily. 1 tablespoon of a mixture made up of 50 g birch leaves, 40 g stinging nettle, 5 g rose hips and 5 g marigold blossoms, obtainable from pharmacies, is added to 150 ml water.
COPING WITH THE POUCH IN DAILY LIFE

Naturally, every patient needs to get used to the new pouch in his or her own time. After complete healing of the wound – after 3 months – the surgical wound is mechanically stable so that all normal daily activities can be undertaken. Activities which cause extreme increases in pressure on the stomach such as pursuing weight lifting, rowing or martial arts as a hobby or lifting, pulling or carrying heavy loads weighing more than 10kg should no longer be undertaken to keep the risk of hernia at a low level.

The pouch may mislead patients into believing that they only need to empty their bladders infrequently as the urge to urinate is not experienced in the same way as with a natural bladder. This may lead, however, to chronic overdistension, increased overacidification of the blood as well as to subsequent kidney damage so that it is important to remember to empty the pouch sufficiently frequently.

It is generally possible to put on a safety belt in the car or when flying without problems.

It is important to carry a pass which describes in detail the technique used to create the pouch. In case of accident, any surgeons operating on the stomach know exactly what the situation is. This prevents the blood supply to the pouch being accidentally cut through. In addition, it ensures that an indwelling catheter is inserted for the pouch and that the latter does not burst. It also helps to clear up any uncertainties at airport passenger checks. When travelling, it is also important to take sufficient catheters, preferably in the hand luggage, or to have a sufficiently large number of catheters sent to the holiday destination. There are no restrictions on swimming and visits to the sauna.

SEVERE DISABILITY, SOCIAL COUNSELING AND LEGAL MATTERS

Capacity to work and restrictions on professional life

If the disease takes its normal course, pouch users are able to perform light physical work for shifts of six hours or more on a full-time basis in their working life. It is reasonable to expect to resume employment within two to six months after the operation.

As a rule, all operations in which the stomach wall is sectioned involve severe neuromuscular disorders (paraesthesia or pain at the wound, particularly during rotating movements) for 3–6 months. After this period, patients are generally pain-free.
With a pouch, no physical work should generally be undertaken that leads to pronounced increases in intra-abdominal pressure (abdominal press). There is an increased risk of unintended loss of urine via the stoma or of hernia. The kind of work in question includes frequent bending down and kneeling or work involving lifting and carrying without aids and working on ladders and scaffolding as well as overhead work, all of which should be avoided.

Toilets must have facilities for pouch users to self-catheterise every two to three hours. These should include at the very least storage facilities and a waste bin with a lid in the cubicle – and in the men’s toilets too – as well as a wash basin. A disabled toilet meets all these requirements. The normal hygiene requirements for toilets are sufficient.

Regular fluid intake of approx. 2.5–3 l/day spread over the day must be possible.

Long-term damage to muscle and the nervous system must be assessed on an individual basis. In the case of extensive abdominal wall hernias, surgery should be attempted but is not always successful. Reassessment of capacity can be indicated after a hernia operation. In individual cases, capacity to work may no longer exist after an unsuccessful operation or if surgery proves impossible.

When an advanced tumour is present, patients often no longer have the capacity for professional activity.

**Degree of disability**

After creation of a pouch there is the issue of artificial urinary drainage outside the body. The availability of a good treatment option means that a 50 % degree of disability should be conceded. When there are problems such as narrowing, retraction of the stoma or problems with urine-tightness, the degree of disability increases, depending on the severity of the problems, to 60–80 %.

Underlying bladder cancer should be taken into account in assessing the degree of disability. In the case of bladder tumours without lymph node or distant metastasis (spread of the tumour into lymph nodes or distant organs such as bone or lung), the degree of disability is 80 % and with lymph node or distant metastasis 100 %.

**Mobility**

As a rule, mobility is not restricted after creation of a pouch. Exceptions are residual nerve lesions in the legs (e.g. weakness of the calf muscles because of damage to the peroneal nerve) or severely congested lymph flow in the lower extremities.

**Prescribing the necessary aids**

Patients with pouchs are entitled to the prescription of sufficient disposable materials with which to perform catheterisation of the pouch. This includes, in particular, a sufficient number of sterile disposable catheters (intermittent catheters) as well as the accompanying tools required such as concealer plaster in case small quantities of urine are lost from the pouch stoma.

**LITERATURE**

*a selection*

Attachment to §2 of the German Medical Health Care Ordinance of 10.12.2008

**BLADDER CANCER THE BLUE GUIDE VOLUME 18**

Rübben H, Dunst J, Küchler Th, German Cancer Aid (2008)

**GOOD PRACTICE IN HEALTH CARE CONTINENT URINARY DIVERSION**


**CONTINENT CATHETERISABLE POUCHES FOR URINARY DIVERSION**

Rink M, Kluth L, Eichelberg E, Fisch M, Dahlem R

Eur Urol Suppl 9 (2010) 754-762
URINE MEASUREMENT

<table>
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<th>TIME</th>
<th>FLUID INTAKE</th>
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You can easily use this table as a master copy to make further copies.
The Flocath Hydrogel Indiana Mainz is especially developed for pouch catheterisation and sets new standards for safety and comfort. A Flocath catheter is adapted to the needs of a reconstructed bladder and combines the Flocath hydrophilic technology with diversified drainage openings for an unobstructed, clean and safe catheterisation.

**APPROVED SAFETY**
- the Flocath catheter, made of DEHP-free PVC, offers four catheter eyes vertically cut and softly rounded to ensure reliable and clean drainage despite postoperative increased mucus production
- the flexible curved and tapered Tiemann tip enables high control for pouch catheterisation
- the silky hydrophilic coating of the catheter, based on PVP (polyvinyl pyrrolidone), provides a fast and homogeneous hydration, high biocompatibility and is resistant to abrasion; superior lubricant qualities allow it to slide easily into position

**COMFORTABLE APPLICATION**
- the special Flocath coating offers significantly lower friction than conventional coatings*
- extended dry-out time up to 10–15 minutes allows a relaxed catheterisation

**ADDITIONAL** – to activate the hydrophilic coating the catheter has to be wetted by, preferably, sterile water or saline solution

**HANDY** – the sterile packaging can be opened on both sides

**EXPANDABLE** – if a drainage bag is needed, it can be connected with the funnel at the end of the catheter

**INDIVIDUAL** – Flocath Hydrogel Indiana Mainz is available in different diameters (sizes)

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* Measurement of friction based on method described by the SP Swedish National Testing and Research Institute.
APPLICATION INFORMATION*

1. Wash and preferably disinfect your hands thoroughly – before and after the application.
   Open the catheter packaging a little, pour some sterile water or saline solution into the packaging and gently sway it.

2. Hang up the catheter package to prepare for the next step.

3. Wait for 30 seconds while the catheter’s hydrophilic coating is activated.
   Insert the catheter via the stoma into the pouch until urine flows.

*The information provided here is no substitute for consulting a physician and carefully reading the instructions for use.
IMPORTANT ADDRESSES/ SELF-HELP GROUPS

MITROFANOFF SUPPORT
http://www.mitrofanoffsupport.co.uk

BLADDER AND BOWEL FOUNDATION
SATRA Innovation Park
Rockingham Road · Kettering · Northants – NN16 9JH
Helpline: 0845 345 0165 · General enquiries: 01536 533255
www.bladderandbowelfoundation.org

DISABLED LIVING
Burrows House
10 Priestley Road · Wardley Industrial Estate · Worsley · Manchester – M28 2LY
Phone: 0161 607 8200
www.disabledliving.co.uk

PROMOCO
Provides advice and information on products and services to help manage bladder and bowel problems
Redbank House · St Chads Street · Cheetham · Manchester – M8 8QA
Phone: 0161 834 2001
www.promocen.co.uk

INTERNATIONAL CONTINENCE SOCIETY
9 Portland Square · Bristol – BS2 8ST
Phone: 0117 9444881
www.icsoffice.org

NHS DIRECT
www.nhsdirect.nhs.uk
For health advice and reassurance, 24 hours a day, 364 days a year Phone: 111

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Teleflex Medical Europe Ltd., IDA Business and Technology Park,
Dublin Road, Athlone, Co Westmeath, Ireland
Phone +353 (0)9 06 46 08 00 · Fax +353 (0)14 37 07 73
orders.intl@teleflex.com · www.teleflex.com

For detailed information see www.teleflex-homecare.com

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For further information contact your local representative.
All data current at time of printing (01/2014).
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The medical information was kindly supplied by Dr. Vahlensieck (Lecturer). It is subject to change on the basis of more recent medical findings. This brochure is intended as a guide only and is not a substitute for a visit to the doctor or for medical treatment. Please always ask your physician if you have medical problems.

Teleflex cannot accept any liability for the accuracy or completeness of the information given in this brochure.