



Post-op Status after Endoscopic Transforaminal Nucleotomy

Information, Exercises and Instructions



General Information on Post-op Status

Post-op care and rehabilitation are of utmost importance after a disc surgery in order to restore the functionality of the disc as far as possible. The surgery itself is the first of several steps on the way to a symptom-free and strong back. This brochure will serve you as a guideline for post-op care.

Surgical Dressing

The bandage applied after the surgery will be renewed the following day. Approximately 24 hours after the surgery you may take a shower, while keeping your back upright. We will give you a special adhesive foil, which has to be applied to the bandage before taking the shower. After drying, the complete bandage should be renewed. If you don't take showers, the bandage has to be changed every second day. The sterile strips should be removed after 10 days.

Pain Treatment

In most cases there is no or nearly no pain directly after the surgery. After a first pain-free period of about 2–3 weeks though, pain can repeatedly occur in the gluteal region or the legs.

This should not disturb you, since this is a part of the normal healing process: over months or even years, the nerve has been compressed by the herniated disc tissue like a carpet underneath a cupboard. And like the carpet, the bruised nerve is recovering slowly until reaching the initial status again. During this period, nerve tumefaction and pain may occur that seem similar to those before the surgery. In this context, we should like to give an additional advice: in case the spine is relieved for a longer period of time, e.g. while lying, the affected disc core tends to absorb liquid excessively. Hence the intervertebral distance expands, which leads to an overstretching of the facetted joint capsules in this segment of motion. This explains why at times painful immovableness in the morning or difficulties in starting may occur.

On consultation with the physician, any analgetic can be taken in case of pain. Should the pain endure, an especially decongestant and analgetic medicament is recommended (Diclophenac 50 mg, 3 times per day for 1 week). In case the pain aggravates even at rest, please contact your physician.

On the way to a pain-free and fully functional back

How to get up out of the lying position

In order to get up out of a lying position, you should first of all pull your knees towards your body, turn to your right or left side and then sit up with your back upright. Your physiotherapist will be readily prepared to demonstrate this procedure.

The fixing body corset and orthopaedic aids

In principle, the corset should not take over the function of the disc or the spine respectively, but protect you from making extreme movements. Directly after the surgery, you will receive a fixing corset in order to restrict your range of motion to a minimum for the first 2 post-op weeks. In the 3rd post-op week, the corset will be replaced by a back brace in order to "re-launch" the dorsal muscles until they regain their full functionality as a support of the spine. Beyond that period, the brace should be worn in case of extraordinary strain (such as driving, doing housework, heavy lifting etc.). In the beginning, the corset has to be put on and off in a lying position, while lifting your lower back and buttocks. During the healing process (up to 2 weeks after the surgery), you should use the recommended toilet seat accessory.

How to sleep

The best sleeping position would be on the back with bended knees (if needed, place a cushion under your knees). Alternatively, you may also sleep in the step-like position (refer to "Exercises and Instructions", fig. 1). Likewise, prone and lateral positions are possible. When lying in the lateral position, you should have a cushion between your knees. The mattress should be comfortable and stable, while comfort has priority over degree of hardness. Anyway, it should be a mattress you have already tested for at least one week and which you have found to be appropriate. A water bed can also be a sensible alternative.

Intimate Contacts

After the surgery, intimate contacts are possible without any problems. You should take care that the operated partner mostly lies on the back. Please do not hesitate to ask your surgeon or physiotherapist regarding this issue.



How to sit

During the first 2 post-op weeks, you may sit for 30–60 minutes. In case of radiating or aggravating pain though, you should stand up and walk or lie down. Under normal circumstances, you will be able to work seated after 4 weeks. But you should always have in mind that sitting means maximum strain to the spine. In general, you should change your sitting position from time to time and you should take breaks. It is important to keep the right sitting position. During the first 2 post-op weeks, you should wear your corset and sit as upright as possible. The best position is: bent forward, elbows rested on the table or leant back on a chair (refer to "Exercises and Instructions", fig. 2)

How to bend, lift and carry

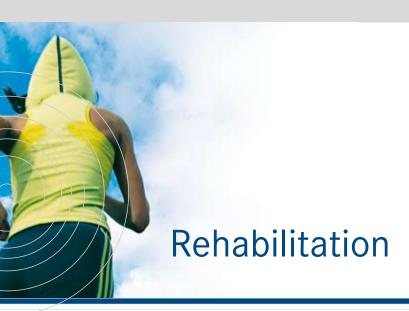
During the first weeks, you must absolutely avoid bending forward the upper part of your body without resting on your arms (refer to "Exercises and Instructions", fig. 3) While lifting things, bend your knees, hold your back upright and straight and avoid twisting movements (refer to "Exercises and Instructions", fig. 4). Within 6 weeks after the surgery you should not carry more than 8 kg (refer to "Exercises and Instructions", fig. 5). Carry the burden with both arms equally.

How to drive

From the 2nd post-op week on, you may drive yourself when wearing the corset. From the 5th post-op week on, you can drive with the backbrace on. In principle the same instructions as under "How to sit" should be adhered to.

Footwear

For the first weeks, you should wear comfortable shoes with low heels.



Healing process, stabilisation, normalisation

The after-treatment comprises three different phases:

- Healing process (1–14 days after the surgery): the healing of the disc tissue is optimised.
- Stabilisation (3-6 post-op weeks): remaining ailments will be reduced and the muscular system will be reactivated.
- Normalisation (from 6 weeks after surgery on): the dorsal muscles are being prepared for normal day-to-day life again.

A strong dorsal muscular system is a prerequisite for relieving the discs and the spine, since even a surgery cannot fully restore the functionality of the disc concerned.

The above-mentioned phases can differ in time depending on the healing progress.

Healing Process

The healing phase starts after the surgery is completed and ends about 2 weeks later.

The first week of this healing phase is meant for recovery from the surgery, for getting accustomed to the corset and for learning the appropriate behaviour (with respect to the back) for your daily life.

During this time, the corset has to be worn the whole day through. From the 2nd night after the surgery on, you can already remove the corset for sleeping.

While wearing the corset, you can walk, stand and sit. Sitting should be reduced to a minimum though, since this is straining the back to a maximum. Furthermore, you should not walk or stand longer than 1 hour at a time.

Some instructions for your daily life:

- How to brush your teeth: Rest one hand on the hand-basin while holding your back upright.
- How to put on stockings, socks and shoes: lean your back against the wall or a door, pull one of your legs upward and rest it on your standing leg
- How to tie up shoelaces: rest your bent leg on chair or a small table
- Always hold your back upright
- While lying, never lift stretched legs, neither one nor both
- Never carry more than 8 kg within the first 6 weeks after the surgery
- If you want to lift something, bend your knees and hold your back upright



One week after the surgery the rehabilitation exercises could – and should – start. To begin with, the exercises are done in a lying position and without the corset. During the physiotherapeutic treatment, you will learn how to do the different exercises. Every exercise should be done in a controlled manner in order to avoid swinging or jerky movements as well as sudden torsions.

We have put together some exercises you should do at home on a regular basis in order to optimise the healing progress. You will find these instructions in the attached brochure (Exercises and Instructions).

Stabilisation

The stabilisation phase follows the healing period and lasts for about 4 weeks. You know how to act, what to keep in mind while moving and you know your exercises.

During this period you will slowly reduce wearing the corset. In general, the corset is now removed and will be replaced by the back-brace. Nevertheless, it should be put on when sitting for a longer time or working. With seated work, which is allowed now, you should take care that you are changing your sitting position and your posture regularly.

Please keep in mind that the spine is still somewhat instable and therefore back pain and radiating pain in the legs may still occur. By training regularly, the muscles will be built up constantly, the spine will stabilise more and more and the pain will vanish.

This stabilisation period can possibly last for more than 4 weeks. But at the end of this phase, you should mostly be pain-free.

Normalisation

The purpose of this period is to normalise and stabilise your condition. The corset has not to be put on any longer and you can now bend your body forward. By now, you should also have been able to return to work.

The essential part in this phase is an intensive training programme in order to further strengthen the dorsal and abdominal muscles. For in spite of all the progress achieved and in spite of being pain-free now, a certain weakness of the spine will remain. This should be compensated as far as possible.

Therefore, you should absolutely avoid any heavy lifting also in the future. In order to get fit not only for your daily life but also for sports, the muscular system has to be maintained and strengthened further.

After the therapeutic programme has been completed, you should continue to carry through our specific training programme. This and our Medical Strengthening Therapy (please refer to the corresponding brochure "MST") will help you to stay in good shape.

This rehabilitation programme is aimed at fully restoring your former quality of life. We wish you all the best for your personal success.

Your ENDOSKOPIA-Team



Rehabilitation at a Glance

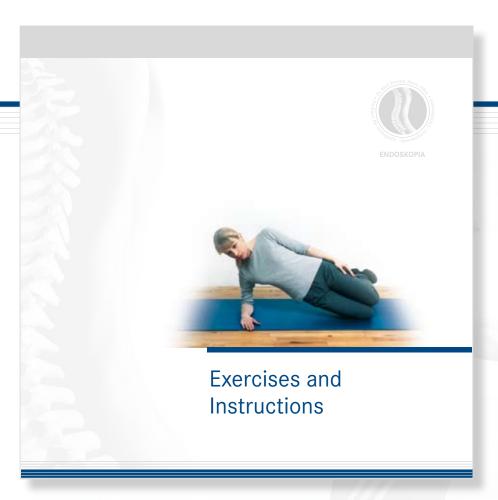
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	Healing Phase (Post-op day 1–14)				
Day of the surgery, dir	ectly after the surgery				
Walking and standing	With corset, several times per day, up to 30 min. max. Lie down in between.				
Sitting	With corset, up to 30 min. max.				
Lying	The corset has to be kept on, especially during the first night. Possible sleeping positions: back, abdominal, lateral.*				
Physical strain	Only slight activities are possible.				
Sports	Not possible yet.				
First day after the sur	gery				
Walking and standing	After check-up: with corset, several times per day, up to 1 h max.				
Sitting	With corset, up to 30 min. max.				
Lying	The corset has to be kept on, also at night. Possible sleeping positions: back, abdominal, lateral.*				
Physical strain	Only slight activities are possible.				
Sports	Not possible yet.				
2-7 days after the sur	gery				
Walking and standing	With corset, several times per day, up to 1 h max.				
Sitting	With corset, several times per day, up to 30 min. max.				
Lying	The corset can be put off at night, depending on the patient's condition				
Physical strain	Only slight activities are possible.				
Sports	Not possible yet.				
8-14 days after the su	rgery				
Walking and standing	With corset, several times per day, up to 1 h max.				
Sitting	With corset, altering with walking and standing, several times per day, up to 1 h max.				
Lying	The corset can be put off during the day and – depending on the patient's condition – also at night.				
Physical strain	Physical and physiotherapeutic treatments can be started as an additional support (fango, thermal, electrical therapy, kryotherapy e.c.). The exercises are carried through in al lying position with the corset put on.				
Sports	On your own, you should do exercises 2 – 7 several times a day, in a lying position and without the corset. Other sports are not possible yet.				

 $^{^{\}star}$ When resting, please move your ankles and knee-joints several times per hour in order to avoid thrombosis (Exercise 1).

	Healing Phase				Stabilisation Phase	Normalisation Phase
	OP day	1. day	27. day	814. day	36. week	from week 7 on
Exercise 1						
Exercise 2-7						
Exercise 8-14						
Exercise 15-17						

	Stabilisation Phase (3.–6. post-op week)
Walking and standing	With back-brace, several times per day, depending on the patient's condition even more than 1 h.
Sitting	With back-brace and regularly altering position (walking, standing) possible. Driving only with the corset on, from week 5 on with back-brace, but with breaks for moving every 30 minutes.
Lying	Without corset or back-brace. Possible sleeping positions: back, abdominal, lateral.
Physical strain	With corset, light work / housework possible. From week 5 after the surgery on, the corset can be replaced by the back-brace.
Sports	After the 3rd post-op week (wounds should have healed) swimming is possible (prone position, back position). From week 4 on, a decent staying-power training on the bicycle and a bike ergo meter or on the stepper is possible (with back-brace). Extreme activities such as badminton, squash, and other ball games with body contact as well as high physical strain are still forbidden in this phase. Additionally, you can do exercises 8–14 on your own.

	Normalisation Phase (from 7. post-op week on)
Walking and standing	Without back-brace, no restrictions.
Sitting	Without back-brace, no restrictions.
Lying	Without back-brace, no restrictions.
Physical strain	When pain-free, the physical therapy should be reduced step by step. The specific strengthening of the lower (autochthonous) dorsal muscles with the MedX testing and therapeutic equipment should now begin (Medical Strengthening Therapy). Training of the knee-extensors (m. quadriceps) with stretched legs is forbidden as well in a lying and a sitting position until the 8th post-op week.
Sports	For sports, the back-brace should always be put on. After the 8th post-op week slight activities such as biking, walking etc. are also possible without the back-brace. From week 12 after the surgery on, sport activities should be possible in general and without any restriction. Additionally, you may now integrate exercises 15–17 into your training programme.



In case of further questions, you can reach us personally by calling +49 (0)931- 45 29 406 or by e-mail: praxis@dr-alfen.de





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For further detailed information on our individual treatments in spine therapy, please do not hesitate to contact us. We shall be pleased to welcome you in our practice for a check-up and a consultation.

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