Spine center Leading through Specialisation







Michael Schubert, MD Orthopedic and Spine Specialist



Armin Helmbrecht, MD Neurosurgeon and Spine Specialist



Christian Schultz Trauma surgeon and Spine Specialist

**Christian Wagner** 

Diagnostics and

Microtherapy



### AFTER YOUR SPINE SURGERY

Dear Patient, a proper aftercare and rehabilitation is crucial after a successful spine operation. Based on the long lasting experience of the apex spine Center's own rehabilitation center, we were able to assemble a detailed therapy- and activity - road map for the time following your spine surgery.

Data from thousands of patients were collected through post operative check-ups and standardized questionnaires, allowing a scientific analysis of the best possible aftercare.

The aftercare can be separated into three phases.

1. First, the healing of the disc should be optimized, followed by the reduction of any remaining symptoms and relaxation of the back musculature.

2. In the second phase (stabilization) the mobility of the spine is to be restored.

3. The third and most important phase is to normalize the spine by strengthening the musculature and to improve the general condition of the back.

Should adverse reactions occur, you can contact a physician on call +49 (0)700 20 4000 20

"We wish you a speedy recovery and a successful rehabilitation period!" Dr. Michael Schubert, Dr. Armin Helmbrecht, Christian Schultz, Christian Wagner and team

### TABLE OF CONTENTS

The spine after surgery	2
Post-operative program	3
On the day of the operation and the first post-operative day, returning homeSeite	4
The time after your surgery	5
Check-upsSeite	6
Proper rising	7
Lying, lifting, driving	8
Pain and muscle-weakness Seite	9
Useful tips Seite	10
Sports and recreation	11
Muscle-weakness	12
Rehabilitation and muscle strengtheningSeite	13
Patients and PhysiotherapistsSeite	14 - 16
Additional exercises lumbar and cervical spineSeite	17 - 18
Your individual post-operative planSeite	19

### Post-operative program

The healing process of soft tissue such as skin, muscle, ligament and disc material takes approximately 2 weeks. This is the earliest possible timeframe for motion & manipulation of the operated area. Therefore activities of the lumbar spine should be restricted during the first 2 post operative weeks in order to avoid swelling and irritation.

A custom fitted brace will give support throughout the first 2-4 post-operative weeks when sitting, standing and walking. You will wear it during the first night after surgery, but you can remove it for the following nights and when resting. Always dress and remove the corset in a lying position with a (bridge) hollow-back and raised bottom. Bending without support should be avoided. Our brochure: "Back Care – Tips & Exercises" exemplifies how to get out of bed and how to stand up from a sitting position.

Lying down in a prone or lateral position, supported by a pillow and wedge beneath the legs, are the most relieving positions for the spine following surgery. Angle one leg if you prefer to lie on your belly.

Two weeks after surgery the stabilising staves will be removed from the brace and the now elastic bandage will be worn until the back musculature resumes its back-supporting capacity. The bandage should be worn beyond when sitting for a long time (for instance during a long car trip), during household chores or heavyduty activities.

You can take a shower on the first post-operative day. Keep your back straight when showering. The surgical dressing should be changed for a new one after towelling off. Change the dressing at least every other day. Stitches (if applied) should be removed about 10 days after surgery by your doctor.

### Rehabilitation program is divided into 3 phases

Healing phase: First, the healing of the disc should be optimized, followed by the reduction of any remaining symptoms and relaxation of the back musculature

Stabilization phase: In the second phase (stabilization) the mobility of the spine is to be restored

Normalization phase: The third and most important phase is to normalize the spine by strengthening the musculature and to improve the general condition of the back

For all your questions during that time call one of our physicians at our Service Number: +49 (0)700-20 4000 20

Or our physiotherapists at our Service number: +49 (0)700-20 4000 10



1 | Angle your legs to relieve your lower back



"The brace does not come off on the day of the operation or the first night!"

### On the day of the operation

Walking and standing is permitted as soon as the aftermath of the anaesthesia has faded. You should spend the remaining day resting on your back, side or belly – alternated with walking and standing.

On the day of the operation you may sit for a maximum of 30 minutes at one time.

Exercise your knees and ankles periodically when resting in bed, in order to avoid blood clots.

Pain medication will be provided and should be taken when needed.

### First post-operative day

After your post-operative check-up you should spend the day alternating between resting and walking. Avoid sitting for longer than one hour at one time. Use both arms for support when standing up.

1 | Staying active is important



4

"NOTE: Walking is the best pain medication. You should walk frequently throughout the day but not exceed 30 minutes at one time. Standing is permitted for as long as you please, as long it does not cause any discomfort.."

## Returning home

### BY CAR

Set the passenger's seat in a 45° angle and support legs with a small foot raise, if possible. Take an active 5 - 10 minutes brake after a maximum of 1.5 hours driving.

### **BY TRAIN**

Choose a sleeping car for longer distances, otherwise walk around leastwise hourly.

#### **BY PLAIN**

Do not exceed one hour in the sitting position. Take frequent breaks from sitting, walk around, exercise your feet and legs.

### First post-operative week

During the first post-operative week you will be wearing your back brace throughout the day, daily increasing your walking distance, standing- and sittingtime. During this first week you should not walk for longer than one hour at one time and sitting should remain limited.

Make sure you use both arms for support when sitting down and standing up. Take short walks throughout the day. Do not steer a car by yourself!

### Second post-operative week

One week after surgery, light rehabilitation can be taken up. During treatment the corset comes off only when lying down. Physiotherapy includes fango, heat-therapy, interferential electro-therapy and massage.

Ice-therapy (kryo-therapy) can be applied if required.

Your physiotherapist should instruct you in exercises which can be performed autonomously, as displayed in our brochure "Back Care – Tips & Exercises".

This is important and expedient for the entire rehabilitation process.

Please note: during this first week of therapy (second post-operative week) solely exercises 1 – 6 are admissible.

You may now steer a car.

### Third post-operative week

2 weeks after surgery the brace can be slowly replaced day by day by a bandage throughout a period of time. However it is suggested that you wear it when sitting for long periods of time or during work.

Sitting activities are permitted but a regular change of position is advisable.

As a general rule, swimming is admissible after the stiches are removed. When taking a swim alternate between backand belly-stroking. Do not allow your back to sag when swimming on the belly; consciously tense your abdominal- and buttock-musculature. Ergometer exercise is now advisable. Bike riding can be taken up 2 weeks after surgery. Note that extreme physical exposure and sports activities (such as mountain bike or racingbike rides) are not permitted throughout the first 6 post-operative weeks.

### 6 weeks after the surgery

Continue alternating your position when sitting down for longer periods of time. You may still utilize your corset or bandage for support. Back exercise is necessary throughout the 2nd and 3rd post-operative month. An intense exercise program for the strengthening of the back- and abdominal- musculature is inevitable, especially if your work consists of lifting and demands physical action, or if you wish to remain active in sports. Please consider that despite a successful healing progress or pain freedom your back will always

remain a vulnerable spot. Try to avoid unnecessary strains, follow and internalize the directives for a back sparing conduct during every day life activities. If you are a regular at sports, it is now time to pick up light exercise and slowly return to your routine. The bandage is no longer worn during this period, however wearing it might be helpful in straining situations.

Avoid exercising your quadriceps in a sitting position.



"Take care of your spine, it will rebel if you increase your training level too rapidly"

### Check-ups

A check-up is conducted one day after surgery, prior to your release. Stitches can be removed by your general practitioner or your orthopedic doctor as well as in our clinic.

A 3-month post- operative check-up at our clinic is advisable. The check-up consists of a MedX test to assess the strength of your back musculature, a spine motion analysis test to assess the mobility of your spine, a physical-examination and a MRI-examination. The 3-month post-operative check-up is settled prior to your release after surgery.

### Summary

#### STANDING UP

When getting up from a lying position, tuck up both knees and turn to the side.

Extend legs and use both arms for support, when sitting up with a straight back.

#### STANDING

Standing is never a problem, as long as there is no pain or radiation into the legs and no other symptoms appear.



1 | Our leading physiotherapists

#### SITTING

For the first 2 post-operative weeks you may sit 30 – 60 minutes at time, but not exceed three hours per day. Lie down and rest, if you notice any radiation or an increase in pain. Part time resumption of office work (sitting labour) is usually possible after one week. However, keep in mind that sitting is one of the strongest exposures for the disc! Do not remain in the same position for hours, alternate your position. When working in a sitting position you should pick up a compensatory workout and exercise twice a week.

The sitting position plays an important role: during the first two weeks after operation, while still wearing the corset, you should sit with a straight back, arms propped at a table in front or in an armrest.

Do not remain in the same position for hours, alternate your sitting positions.



2 | Keep upright when sitting



"24-hour-service: +49 (0)700 20 4000 20"

### Rising from a lying position

When rising from a lying position pull both knees upwards, turn sideways and sit up with a straight back.









1 - 4 | Rising correctly avoids unnecessary strains on your spine

### Rising from a sitting position

When getting up from a sitting position, place both hands on your thighs, extend legs and use both arms for support, keeping your back straight.







1 - 3 | Rising correctly relieves the spine after surgery









1 | Lateral position - eventually with a pillow between your legs 2 | Proper lifting 3 | Proper carrying 4 | Adjust your car seat correctly



### Proper lifting, lying and driving

### RESTING

On the day after the operation you may already lay down without the corset. After you lye down you may choose any position that feels comfortable, even lying on your belly.

Place a pillow under your belly and pull your legs up to avoid a hollow-back.

#### **BENDING, RAISING, CARRYING**

During the first 6 - 8 weeks after the operation you should avoid lifting all together.

If lifting is not avoidable: go down on your knees if you have to lift something of the floor and use your arms for support. Do not lift anything heavier than 7 kg (16 lb). Do not bend forward or bend your body forward/sideways without support. Bending forward is admissible starting 6 weeks after your spine surgery, but note that this activity is always straining your back, if you do not have an additional support.

#### **DRIVING A CAR**

You may resume driving a car around 1 week after surgery. You should not exceed your maximum sitting time and make sure you adjust your car-seat correctly.

Consider that you must be able to handle the car, avoid taking long trips by yourself and take regular brakes. As a passenger, during the first postoperative week you should adjust your seat in a 45° and take an active 5 - 10 minutes brake after a maximum of 1.5 hours.

"24-hour-service: +49 (0)700 20 4000 20"

### Post-operative pain

In general patients report of no or little pain, but if you experience pain on the evening of the operation, we will supply you with adequate pain medication.

Due to the medication, you will be pain free for up to two to three weeks, pain in the buttocks or leg can occur, caused by a congestion and swelling of the tissue surrounding the operated area that can be abated with the prescribed pain medication supplied after surgery.

Additional intake of Diclophenac 50 mg (3 tablets a day) can be considered, should symptoms remain for a longer period of time. Pain should diminish after about 2 weeks.

Please contact us, if symptoms increase despite of rest and medication.

Phone: +49 (0) 700 20 4000 200

### Muscle-weakness

A weakening of certain muscle areas in the leg can be observed after a herniated disc. The weakness can be improved or corrected by means of exercise. Muscle groups affected the most are the anterior and posterior thigh muscles, the calf muscles, the foot extensors and the foot flexors. These muscle areas should be particularly regarded and exercised by your physiotherapist.

> 1 | From experience we know that a well balanced spine is a crucial factor for excellent longterm results. This is achieved best with a combination of physiotherapy and manipulation together with medical strengthening therapy.





FORBIDDEN: Sitting when exercising the quadriceps area. Exercises with straight legs (stretching of the Achilles tendon and mobilization of the sciatic nerve) may be performed only in a passive way"







1 | Relaxed teeth brushing 2 | You should kneel down to tie your shoes.

### Useful Suggestions

Remarkable forces on the back can evolve during ordinary activities, such as dental hygiene. You can avoid the strain by placing one arm on the wash basin, when brushing your teeth. Lean your back against a wall or door and angle your leg on top of the supporting leg, when putting on shoes or socks while standing. You can also use a low table or chair to tie your shoes: raise one leg on the rise, lean forward with a straight back and bend the supporting leg. When raising one or both legs, make sure they are slightly bent – also when exercising.

### The right mattress for you

A mattress should be comfortable and stable. It is important that you get a good night's sleep – the degree of hardness should not play the decisive role. A waterbed can be a good alternative, as it offers additional comfort and its temperature can be regulated. You should always test the mattress prior to investing serious money. Same caution should apply when you purchase appliances such as lumbar support-pillows, wedge-pillows, gym-balls etc.

### Intimacy

Sexual intercourse is not a problem if you consider positions that are less straining on the spine. Ask our physiotherapists for a copy of these preferable positions.



"Note: A poor mattress alone does not cause a herniation."

### Sports & Recreation

A herniated disc means instability to the spine; the disc no longer sits tightly in its position and can irritate nerves. The only way to stabilize the spine is the addition of muscle strength (apex concept 5). A targeted muscle build up not only stabilizes the spine, it also lowers the risk of a new herniation. It is therefore crucial to remain active in sports at least twice a week for 45 minutes or three times a week for 30 minutes after the muscle-build up program has been completed.

It is up to you which sport you prefer, but you should consider that sports like swimming, walking and bike riding means less stress to your spine than sports like ski, squash and other sports. Tennis and golf are possible, but bear some risks. Be cautious when playing golf or squash. Skiing or inline-skating are considered harmless. Pay attention to your spine, it will revolt if you increase the level of activity too fast.

It is our experience that the best possible result is a well balanced spine. The right balance can be achieved best with a combination of physical-manual therapy and muscle strengthening training in a therapeutic setting.



1 | Swimming strengthens the back muscles 2 | Nordic-walking strenghtens the neck shoulder area 3 | The asymmetric pedalling movement strengthens the deep back muscles



"Larger physical stress and a stressful sports (such as mountain biking and road cycling) are forbidden up to 6 weeks after surgery" Pysiotherapeutic program for weakness of toe extensors, triceps weakness and qudriceps weakness

### A. Weakness of the toe extensors

Weakness of the toe extensor muscles should be treated with Interference Current Therapy, 20 minutes, 3 times per week. Additional tension-exercises of the affected muscles should be conducted (with and without resistance). The patient should practice walking on his heels, which he should repeat twice a day.

#### B. Triceps weakness

As the flexor tibialis is usually still functional, exercises with a large resistance – such as stair climbing, stepper, tiptoeing and (2 weeks post-op) exercises on the ergometer are suggestible.

### C. Quadriceps weakness

Isometric exercises should be practiced in a lying position, rather than sitting, in order to protect the back. Legs should be slightly raised when lying down. At 2 weeks after-surgery, ergometer and stair climbing can be added. The focus of the rehabilitation is on mobilizing exercises such as 1 to 6 ("apex spine concept 4"). Muscle strength can be well stimulated with isometric exercises such as tension of the belly-, back- and leg-musculature. The physiotherapist should instruct the patient how to exercise correctly and safely.









 Starting position - Lay down supine
 Straighten your left leg with the toes pointed towards the ceiling. Bring your right leg to your body
 Lay flat on your back
 Now bring both knees to your chest

 $\sum$ 

"Stair climbing is recommended at all times"

### Rehabilitation after your spine surgery

### Phase 1 Healing phase

The red phase includes first and second post-operative week. The first week consists of rest, getting used to the corset and focus on a correct back sparing conduct during every day life activities. After the first week your physiotherapists will teach you your first exercises.

### Phase 2 Stabilization phase

The yellow phase normally lasts for about 4 weeks. You are now aware of the correct back sparing behavior and know the adequate course of motion. You are slowly replacing the corset with a bandage and increasing your levels of activity. Occasional radiating pain into the leg is a result of instability. The pain should disappear with increasing muscle strength.

From time to time you still have back pain and you might befeeling a little unconfident about your back. The yellow phase should be extended, if back- or leg pain remain for a longer period of time.

### Strenghtening therapy

Additionally to the mobilization exercises (pages 12-15) stabilization of the spine is extremely important. Spine musculature is the prominent stabilization factor and a main target in back pain prevention and therapy is to build up a strong "muscle corset" for the back.

Muscles build up proportionally to their intensity of work level. The higher the intensity, the more muscle growth is stimulated. Hence training with high weight loads is required. It is of no use to do high repetitions with low weights. It is important to slowly execute movements. We recommend a pattern of 4-1-4 seconds. Four seconds for the contraction phase, one for holding and 4 for the release phase. Never increase weights until you feel you can execute movements properly!

You can start with your first exercises about three weeks after surgery. Consider the following order: large back muscles, chest, shoulders, abdominals and hips. Wait 5 weeks before you start training your legs. If your muscles are exhausted already after the first set you need not do a second set. Two short but intensive training sessions a week will do for muscle build up.

Don't hesitate to contact our rehabilitation center for any further inquiries.

### Phase 3 Normalization phase

The green phase starts about 6 weeks after surgery. The bandage or corset is rarely required and you are pursuing some intense muscle-strengthening. You have returned to your profession and are thinking about returning or have already returned to your sports activities. You feel much more confident about your back and are aware of the demeanor that will help to keep your back healthy and pain free, lowering the risk of a new herniation.



### Instructions for patients and physiotherapists

#### Phase 1 Healing phase

The objective of this phase is to teach the patient a correct back sparing behavior when lying down, sitting down or picking up objects. Furthermore the first week of physiotherapy should exemplify how daily charges & chores, such as tying shoes, brushing teeth and small household chores can be conducted safely. Mobilizing and isometric exercises should be practiced. The patient should – as previously mentioned – alternate often between sitting, lying down and standing. No exercise during the first post-operative week.

The patient can walk about for as long as desired, as long as there is no irritation into the legs. The individual strength and maximum capacity of the patient should be considered. Physiotherapy should be initiated two weeks after surgery. When lying down, the treatment shall be carried out without the corset.

Pain and tensions can be reduced by means of physical therapy, such as heat and massages. Interference current therapy, ultrasound and magnetic field therapy also helps to reduce pain. In case the patient is pain free, these methods can be abstained from. Soft, pleasant massages can relieve tension. Stronger tensions can be treated best with heat-therapy. In case of a swelling of the operated area, icetreatment is recommended. All these methods are meant to be perceived as pleasant and helpful to relax the patient and relieve any remaining pain.

In addition to the physiotherapeutic exercises, manual therapy should be implemented in order to advert adhesion or internal scarring. Treatment should be gentle and never go beyond the threshold of pain. Oscillating and suspending mobilization techniques are the most adequate and should be applied directly in the operated area.

For best results it is indicated to implement exercises immediately, if the patient has a muscle weakness (weakness of the toe extensors, calf- or thigh-musculature).

It is important to instruct the patient in exercises that can be repeated at home. An active rehabilitation program strongly increases the chances of a good recovery.



Mind your back. It will revolt if you increase your training level to quickly"

1 | Manual therapy can help to mobilize adhesions 2 | Take care to keep your back straight

#### Phase 2 Stabilization phase

Phase 2 starts around 2 weeks after the operation. Main focus of phase 2 is teaching the patient how to execute the stabilizing and muscle strengthening exercises correctly, as featured in the "Back Care – Tips & Exercises" brochure. The removal of staves from the bandage should be explained, the correct use of exercise equipment and the correct sitting position on bicycle and ergometer should be exemplified.

2 weeks after the operation the stabilising staves are removeded frim the bandage and conditional exercises with the ergometer can be initiated. With the protection of the bandage, shoulder-musculature can now be trained in a sitting position. Strengthening exercises 8 and 9 can be added, later followed by 10-15. When the patient is pain free, physical therapy such as heat therapy, interference or ultrasound can be reduced or terminated. The intensity of the massages can now be increased. Swimming (backstroke, belly-down and crawl - with prior experience) is allowed after the stitches are removed, bicycling is permitted starting 2 weeks postoperative. Should radiation into one of the legs reappear, the intensity of exercise and training should be reduced or discontinued altogether. In addition, the hip-abductors as well as the back supporting musculature should be trained.

Ask your physiotherapist about combined exercises for the abdomen, the back and the back supporting musculature.



1 | Starting position - Lay flat on your back 2 | Cross your right leg over your left knee and put your left hand at the neck. The right arm remains straight and close to your body. Now lift your head and your left arm towards your right knee. The right arm is straight with fingers pointing to the ceiling. Note: Don't pull your head with your hand! Hold 5 seconds.



"You might use a theraband for some exercises"

### Instructions for patients and physiotherapists

#### Phase 3 Normalization phase

If at this time the patient still complains about pain and symptoms, we advise him to consult our team.

Provided that, for the most part, the pain has diminished, phase 3 can be initiated 6 weeks post-operatively. Main focus of phase 3 is to instruct the patient in independently continuing his training and maintaining the achieved level of activity and strength - with and without exercise equipment. Directives for a back sparing conduct during every day life activities should be familiarized. The bandage can be discarded; however the bandage could still be useful during sports or extreme exposures (for instance gardening). 6 weeks after surgery the patient can slowly take up his sporting activities.

The patient should be briefed regarding more or less straining forms of sports activities and should be counselled regarding his options in enhancing his activity level.

All exercises for the stabilization and strengthening of the backmusculature can now be executed. Leg, bottom and pelvic musculature should be extended. During this phase medical exercise focuses mainly on the build-up of back musculature, but the abdomen, shoulder, leg and bottom musculature should not be forgotten in the meanwhile.

Please note that sitting should still be avoided, when exercising the quadriceps area. Back musculature has the greatest importance for patients with back problems. Strengthening of back musculature therefore deserves the most attention. Remember: Muscle strength should not only be accumulated, but also preserved. The exercises can be conducted at home, with or without equipment.

Consult your therapist, when considering investing in equipment.

The muscles of the gluteus (buttocks muscles) can be best exercised with a stepper, but bicycling and climbing stairs are also beneficial for this muscle-group.





1 | Starting position - Lay down supine with your knees bent and the feet flat on the floor

2 | Cross your arms in front of your chest and then lift your buttocks until you form a straight line from your knees to your shoulders. Press your heels to the floor and lift your toes. Hold 5 seconds



 3 | Starting position - Lay down supine with the left leg straight and the right leg bent
 4 | Cross your arms in front of your chest and then lift your buttocks until you form the straight line from your knees to your shoulders. Hold 5 seconds

# Additional exercises during phase 3: exercises for the back supporting musculature

#### 1. Excercise

Basic position: Patient is lying on his side (figure 1 and 2); the lower arm is supporting this position. The upper arm is propped in the waistline; legs are positioned one upon the other. Raise the bottom off the floor and sprawl the upper leg upward around 20 cm (8 inches).

Hold position for about 5 seconds and repeat 5 times on each side.





### 2. Excercise

Basic position: Patient is lying face down (figure 3 and 4); fingertips are situated right and left of the head and the elbows are placed on the floor. Feet can be fixed beneath a bed or closet. Tighten your buttock muscles and raise the upper body 2-3 cm (0.4 inches). Now raise both elbows towards the ceiling, remain there for about 3 seconds and lower elbows down to the floor.

Hold the tension while you repeat this exercise 10 times.





#### 3. Excercise

Basic position: Patient kneels on the left knee (figure 5 and 6), right knee is angled and the right foot stays firmly on the floor. The left knee should be pulled back as far as possible. Place your arms on the hips and pull the pelvic region forward, creating a tension of the frontal hip. Hold tension for 10 seconds, repeat 10 times and switch sides.

Some of the exercises can be complemented with the addition of a flexa-band or thera-band. Ask your therapist for advice.

Feel free to contact our therapist, if you have any further questions or comments.



1 - 6 | Strenghtening and stabilizing exercises

### Stabilization of the neck

### 1. Exercise

Sit on a chair with your back upright, your legs apart and your pelvis slightly tilted. Put your hands behind your head and press them against your head as if you would want to bring your chin to the chest. Push your head against your hands so that there is no movement. Hold this isometric tension for three breaths. Repeat 5 times

Now put your hands to your forehead press them against your head as if you would want to bring your head to your neck. Hold against this pressure so that there is no movement. Hold this isometric tension for three breaths. Repeat 5 times





1 | Stabilization exercise for the neck - front muscles 2 | Stabilization exercise for the neck - rear muscles

#### 2. Exercise

Sit on a chair with your back upright, your legs apart and your pelvis slightly tilted and your right hand at your cheek. Build up a pressure as if you would want to bring your left ear to your left shoulder. Hold against this pressure so that there is no movement. Hold this isometric tension for three breaths. Repeat 5 times

Now you put your left hand to your cheek. Build up a pressure as if you would want to bring your right ear to your right shoulder. Hold against this pressure so that there is no movement. Hold this isometric tension for three breaths. Repeat 5 times





 Stabilization exercise for the neck - right muscles
 Stabilization exercise for the neck - left muscles



"We wish you a speedy recovery and a successful rehabilitation period"



1 | Dynamic calf stretching



1 | Passive hamstring stretch



1 | Active gluteal stretch



1 | Active thigh stretching



1 | The leading physiotherapists: Ines Funkhäuser and Alexander Maack

### You will find your individual training plan as a separate document in your bag

For further inquiries, please contact us:

Physicans apex spine		apex Rehabilitation- and Training center		
phone	+49 89 1500 166-0	phone	+49 89 2944 45	
fax	+49 89 1500 166-29	fax	+49 89 2429 4151	
service number	+49 700 20 4000 20	service number	+49 700 20 4000 10	
mail	info@apex-spine.com	mail	physio@apex-spine.com	

The rehabilitation and training center of the apex Spine Center Munich offers the optimal environment for your outpatient rehabilitation program after your spine surgery. The experienced team of physical therapists and the medical strengthening therapy offer our patients comprehensive training methods for a speedy recovery.

If you wish to do the rehabilitation near your home, the apex spine team and your physiotherapist will be pleased to help you with any further inquiries.

apex spine International Spine Center at the Olympic park Dachauer Straße 124 A 80637 München

 phone
 +49 89-1500 166-0

 fax
 +49 89-1500 166-29

 Service number and fax +49 700-20 4000 20

 info@apex-spine.com

 www.apex-spine.com

Find you way to the apex spine Center



