GUIDELINES FOR PATIENTS HAVING A
Kyphoplasty
**Kyphoplasty**

**Introduction**

This information booklet has been written to give you and your family a basic understanding of what is involved when you require a kyphoplasty.

Although you may have been told different information from friends or others, please follow these instructions specifically.

In this booklet we provide information, including things you should know before and after your operation. It is important for you to understand the advantages but also the possible problems, which may occur after this surgery.

Throughout your stay in UPMC Beacon Hospital, you will receive continuous advice and support from all members of the team.

**What is a Kyphoplasty?**

The vertebrae are a series of bones that make up the spine. When one fractures, it can put pressure on surrounding nerves. This can cause intense pain and disability.

Kyphoplasty is a procedure used to treat vertebral compression fractures and abnormal configurations typically caused by osteoporosis. The minimally invasive technique has high success rates for stopping pain caused by fractures, stabilizing the bone, and restoring some or all vertebral body height lost due to compression.

The procedure involves making a small incision behind the target area so that a narrow tube can be inserted into the fractured portion of the vertebrae. A special balloon is then inserted through the tube and inflated. This elevates the fracture, restoring a more natural shape, while also compacting the soft inner bone to create a cavity in the center of the vertebrae. After deflating and removing the balloon, a cement-like material is inserted into the cavity through a low-pressure injection. The material hardens quickly, stabilizing the bone.
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Potential Complications of a kyphoplasty

Infection
The majority of patients who undergo kyphoplasty surgery have a pleasant experience without any complications. The following is a list of some of the problems that could potentially occur.

Infection
This may occur superficially in the area of the wound or deeper, affecting the bones and soft tissues of the spine. These infections can occur in hospital or after you have been discharge home. An infection is generally treated with antibiotics. If it is a deep infection then further surgery may be required to treat the affected section of the spine.

Leaking
There is a risk of leaking of the cement into the spinal canal or into adjacent veins.

Spinal cord/nerve root damage
In any spinal operation there is some risk of injuring the spinal cord. Damage to the spinal cord can cause complete paralysis or paralysis in certain areas depending on which section of the spinal cord is affected. There is also the possibility of damaging one of the spinal nerves that come out of the spinal cord.

Persistent Pain
One of the most common complications of spinal surgery is that it does not get rid of the patient’s pain. In some cases, it may increase the pain. Some patients’ may develop scar tissue around the nerves weeks after the operation that causes pain similar to what the patient had prior to surgery.

Impaired Nerve Function
Rarely, nerves in the vicinity of the spine being operated on are stretched or damaged during the operation (a neuropraxia). Fortunately, the majority of these neuropraxias resolve over a period of time, sometimes months, but in a very small minority the damage may be permanent.

Deep Venous Thrombosis & Pulmonary Embolism
There is a risk of deep venous thrombosis (DVT) after kyphoplasty. Patients are treated with medications and mechanical devices in hospital to prevent this. In most cases the measures taken are effective. However despite all these precautions some patients still develop clots and may require further treatment with medication. Pulmonary embolism (PE) may occur if the clot detaches from the vein and travels to the lung.

Stroke or Sudden Death
Although these complications can occur following surgery they are extremely rare following a kyphoplasty.
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Manage Your Pain

Pain is a common occurrence following any surgical procedure. It can be well managed with medications, special pain management devices and ice. The pain will naturally reduce as your wound heals and with regular use of analgesics (pain killers). It is imperative to keep your pain well controlled so you can mobilise comfortably, perform your physiotherapy exercises and resume normal activities after your surgery.

You will be asked to rate or score your pain regularly after your surgery. The score will depend on how your pain feels to you.

0= No Pain, 10= worst pain imaginable

(Please point to the number that best describes your pain)

Assign the number you feel best describes your pain. The nurses will administer appropriate treatments/ medications depending on your pain score. The nurse will reassess your pain score after the treatment to make sure it has worked to reduce your pain.

Physiotherapy

EXERCISE PROGRAM

Exercises:

• The physiotherapist will teach you exercises and provide back care advice.

• It is important for you to perform the exercises that your Chartered Physiotherapist prescribes for you daily. This will allow you to gently mobilise your spine and recover both motion and muscle strength. You may also be issued with additional exercises depending on your consultant's request.

• Walking is good for you, but you should rest as needed. Do not get overtired. Try to limit going up and down stairs to once or twice a day for one to two weeks.

• If you have any queries in relation to these exercises do not hesitate to contact the UPMC Beacon Physiotherapy Department on (01) 2936692.

Preliminary Exercises- Early Postoperative Period: 0-2 weeks

Frequency: You will need to do these exercises at least three to four times a day to ensure you reach your rehabilitation goals.

Please be sure to read the exercises carefully and ask your physiotherapist any questions that you may have before you leave the hospital.

The following exercises start as soon as you are able. You may feel uncomfortable at first, but these exercises will speed your recovery.


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1) **Ankle Pumps**
   - With your legs straight, bend your ankles up and down, towards and away from your face.
   - Repeat 15 times

2) **Static Gluts**
   - Tighten muscles in your bottom. Hold 5 seconds, relax.
   - Repeat x 10

3) **Quadriceps Setting**
   - With your leg straight out in front of you, tighten the muscles at the front of your thigh, pushing the back of your knee down into the bed.
   - The result should be straightening of the knee. Hold the contraction for 5 seconds. Repeat 15 times

4) **Trans Abdominal Setting**
   - Lying on your back with your knees bent. Breathe into your abdomen, and on the breath out pull gently up and in from below the belly button.
   - Keep your breathing regular as you hold this muscle in.
   - Hold for 5 seconds, and repeat 8 to 10 times

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Your Rehabilitation Goals

- Independent getting in and out of bed.
- Independent in walking with crutches or walker on a level surface.
- Independent walking up and down stairs.
- Achieve targeted joint range of motion.
- Achieve required muscle power and be independent with exercise programme.

The physiotherapist will review you to commence activity once cleared by the consultant to start.

Day of the procedure/ Day 1:

The Physiotherapist will assess you and provide you with an exercise program. A log roll procedure will be practiced to carry out all transfers in and out of bed. You will walk for a short distance and will be encouraged to progress mobility throughout the day.

Regular exercise throughout the day is required to increase your movement and strengthen your muscles. Walking is part of your exercise programme and you should be increasing your walking distance on the ward daily. The physiotherapist will have escorted you to the stairs and by discharge you will have climbed a flight of stairs safely and independently.

Log Roll Method

Getting into bed:

- Sit on your bed, closer to the head of the bed than to the foot of the bed.
- Scoot back onto the bed as far as you can.
- Lower yourself onto your side using your arms to guide and control your body. At the same time, bend your knees and pull your legs onto the bed.

- Keep your knees bent. Roll onto your back. Keep your shoulder and hips together as a unit as you roll. Think of yourself as a rolling log.
Getting out of bed:

- While lying on your back, bend your knees.
- Roll onto your side. Keep your shoulders and hips together as a unit as you roll.

- Place your bottom hand underneath your shoulder. Place your top hand in front of you at chest level. Slowly raise your body as you lower your legs toward the floor.

General Recommendations

**Sleeping**

While in hospital some patients find it harder to sleep for various reasons, i.e. different bed and environment. If you find that you are having this problem please let the nursing staff know as you may require something to help you sleep.

Usually you sleep in any position that is comfortable. However, you should not sleep on your stomach, because this strains your back muscles. If you have a brace then this can be removed at night, unless otherwise indicated.

**Nausea**

Some of the medications you can be prescribed can cause nausea. Please inform the nursing staff if you feel sick or are getting sick.
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as your medications may need to be changed/adjusted and the nursing staff can also get a medication prescribed to help relieve this nausea.

Stockings

Your consultant may wish for you to go home with elasticated stockings. These can be an important part of preventing the development of deep vein thrombosis (blood clots in the legs). It is recommended to wear these for 6 weeks after surgery.

Pain & Swelling

Most people come round from the anaesthetic and feel an immediate relief of their leg symptoms. Pain often settles fairly quickly. Numbness and tingling sensations usually take longer to settle though - this may be days, weeks or months. It varies considerably from person to person.

Some people may always have an area of numbness that never fully recovers. Do not worry if your leg pain is still present - it is not a sign the surgery has failed. Nerves take time to recover from being squashed. They also have a tendency to ‘remember’ what has happened to them. Also, take into consideration your recent operation. Bruising and swelling will be present which will settle, but can also irritate the delicate nerve tissue initially.

Dressing

Keep your dressing clean and dry, but do not remove it for 24 hours. There may be some bloody spotting on this, however this is normal. Excessive bleeding or non bloody wound drainage that soaks the dressing should be reported to nursing staff.

Showering

Try to keep the Opsite bandage as dry as possible when showering. Be sure to use a rubber mat in the shower, to prevent slipping.

Driving

Returning to drive is at the discretion of your surgeon. You may ride in a car from the hospital to your home. However, you should avoid longer car trips until cleared to do so by your consultant.

Work

Do not return to work until your doctor says you can.

General Care

• Do not bend from the waist to pick up things. This movement strains your back muscles-you should bend your knees and squat instead.
• Do not carry heavy items, such as shopping or laundry. Do not lift anything heavier than a litre of milk. Do not try to move heavy furniture until your doctor says you may. Do not lift anything over your head.
• Do not sit in soft or overstuffed chairs. Firm chairs with straight backs give better support.
• Your reaction time may be slower due to pain or certain prescribed medications.
• Walking is good for you, but you should rest as needed. Do not get overtired. Try to limit going up and down stairs to once a day for one to two weeks.
• You may resume sexual activities when your doctor says you may.
• Avoid strenuous exercise or activities like swimming, golfing, or running until you are advised to do so by your consultant or physiotherapist.

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**Discharge Instructions**

You will be discharged from hospital once cleared by your consultant after your operation. When you leave the hospital you will be asked to make an appointment to see your consultant, usually 6 weeks after the operation. This is for a routine check-up which will make sure you are progressing satisfactorily.

You will also be offered outpatient physiotherapy in the hospital and encouraged to attend this 2-3 weeks post discharge to improve your recovery. It is advisable to attend physiotherapy in this hospital as the physiotherapists will have access to all of your medical notes. The Physiotherapy team also are in direct contact with your surgeon should a problem arise.

On discharge from hospital, your consultant will prescribe you some medications. One of the medications prescribed will be pain medications. Plan to take your pain medication 30 minutes before exercises. Preventing pain is easier than chasing pain. If pain control continues to be a problem, contact the centre for orthopaedics (01-2937575) or your general practitioner.

**Wound Care**
You will leave the hospital with a simple surgical wound.

Infection may occur despite your very best efforts. If any of the symptoms below occur then you will need to see your GP or liaise with the centre for orthopaedics re advice and possibly antibiotics.

**Signs of Infection**

If you develop any of the following signs of infection, it is important to report them to your doctor. The signs of infection include:

- Redness around the wound site
- Increased pain in the wound
- Swelling around the wound
- Heat at the wound site
- Discharge of fluid – may be green or yellow
- Odour or smell from the wound
- Feeling of being generally unwell
- Fever or temperature

**Conclusion**

We hope that you have found this booklet useful and that it has helped to relieve some of your fears and anxieties regarding your surgery.

During your hospital stay, your medical team will be available to answer any other queries you may have.

**Individual Patient Notes:**

Consultant Name: ________________________________

Date of Surgery: __________________________________

Surgery Note: ___________________________________

Weight Bearing Status: ___________________________
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Walking Device: ________________________________

______________________________________________

Date for removal of sutures __________________________