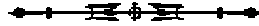




# Rehabilitation after TKR



**Dr Keith Holt**

***Knee replacement is a major procedure that requires 5 - 7 days in hospital. After this time, most people can cope at home with just a little bit of extra help. For those who do not have help at home however, some organisation may be required pre-operatively. Obviously family is the best option but, sometimes, more help is required. In today's world of restricted services however, these alternatives can be difficult to access, and rehabilitation services are limited. It is therefore important to have your operation at a time when home help can be obtained.***

## ***In hospital***

*After surgery, the in-hospital physiotherapists will visit you every day, usually twice a day. They will help you to achieve good knee flexion, hopefully to 90°, by the time you leave. They will also teach you how to walk: initially with a frame and then with crutches. For those who have stairs to negotiate at home, some additional training and practice will be required. This will all be done prior to discharge.*

*The ward staff and Dr Holt will also help you achieve adequate pain relief which you can then manage yourself. Initially, pain will be controlled by intravenous agents which are administered automatically by a button controlled pump, giving you pain relief when you press the button (PCA - patient controlled analgesia). Usually by the third day, the pain is reduced to a level whereby it can be totally controlled by tablets. The aim of the last couple of days in hospital is then to fine tune those tablets so that you can manage at home.*

## ***After discharge***

*There are a few rules to follow after leaving the hospital and, if followed, these will improve the speed and quality of your recovery.*

- 1) The most important thing to achieve in the early weeks is an adequate bend (knee flexion) and, more is better.*
- 2) Walking and excessive exercise makes the knee swell. This is counterproductive to the first aim, and therefore should be limited. It is not necessary to get either fit or strong in the early weeks, you just need good knee flexion.*
- 3) The knee can be flexed up both by easy means and by difficult ones. It is only knee bending, so there is no point in doing anything the hard way if it can be done an easy way. For most people, the easiest way to bend the knee is by sitting on a hard chair or table, allowing the knee hang down to the floor. The leg can then be swung back and forth, either freely, or on a skate board. Similarly, it can be pushed back with the other leg, holding it for about 15 seconds at the point of full flexion. This should be done for about 5 minutes or so, 3 - 4 times per day.*
- 4) Rest is very important. The quicker the swelling goes down, the quicker the knee bend returns. The knee needs to*

*be up, waist high or thereabouts, for most of the time. More walking is not better.*

*5) Physiotherapy may or may not be needed early on. If your knee easily gets to 90° and you can maintain that movement yourself, you do not need physiotherapy in the first week or so at home. If you are struggling with the flexion and swelling, then therapy will help. For most people, hydrotherapy is the best kind, allowing easy motion without too much risk of making the swelling worse.*

*Physiotherapy should not make your knee overly sore. If it does, then another approach may be needed. Also, if you have to travel a long way to get to a physio, the trip may cause enough swelling to undo any benefit. Again, this is a matter of judgment but, it is one reason why, in the first few weeks, home exercises are encouraged.*

*Ultimately, most people will benefit from some therapy after they leave hospital. It is just a matter of judging when the best time to begin that is.*

*6) Most people will go home with some moderately strong analgesics. These will be supplied by the hospital on discharge. If these are narcotics (oxycodone or hydromorphone for example), then there is a limited supply which is permissible by law. Repeat prescriptions can be obtained by ringing Dr Holt's office during working hours. Please supply the fax number, and the name and address of your pharmacy. We will then fax the prescription and post out the original.*

*7) The plan for most people is to take a slow release analgesic twice a day, and then to fill in the holes with a quick release analgesic. The ward will help you work out a plan that suits you and your analgesic requirements.*

*8) When leaving the hospital, you will be changed from an injectable anti-coagulant to an oral one. Usually this is just low dose aspirin (100mg - cartia) which is taken every morning for 6 weeks. Sometimes however, other blood thinners may be used (eg. Rivaroxaban 10mg at night for 15 days).*

## ***Rehabilitation***

*Most big hospitals now have a rehabilitation unit. This is run by the Geriatricians and space is always limited. In order to be considered for a period in the rehabilitation ward, you have*

to assessed by those physicians and the reason for admission has to be medical. This cannot be organised ahead of time and you cannot be pre-booked into this ward. If it seems necessary to prolong your stay because of medical reasons however, then Dr Holt will have one of the physicians come up to the Orthopaedic ward to assess you.

Please note that not all health funds will support a period in a rehabilitation ward and, even those that will, require a documented medical reason before they will cover such. If that reason is present however, then Dr Holt will organise a review by the appropriate physician. That can, and will, be organised as soon as it becomes clear that it is necessary.

### **Home help**

If you already have home help with services like silver chain, then make sure that they know when your surgery is and when you are likely to be discharged. This sort of service can be very helpful during recovery.

Services such as Silver Chain have limited availability and are hard to organise if you are not already receiving them. Nevertheless, this is something that can be discussed at the pre-operative clinic and, most importantly, with the discharge nurse in the hospital. If you think that you are going to need help at home, then you need to arrange to speak to the discharge nurse soon after surgery, allowing adequate time to organise things.

Home aids such as rails and high chairs can also be organised given enough time. Starting before surgery however, is more likely to guarantee that these things will be ready by the time of your discharge.

### **Return to work**

The average time to return to work is 2 months. This is of course an average, and is based on American figures. Importantly however, you should not plan to be better than average, something that may lead to disappointment. If you say that you are going to be off for 2 months and get back at 6 weeks, everyone is happy. If it is the other way around however, then it can lead to problems. Your work will be expecting you and you cannot get there, and you will not have made one of your goals. Hence, it is better to err on having more time off than less, particularly if you are on your feet a lot, and if you work on hard surfaces.

### **Driving**

If you can walk without crutches you may drive any time after 6 weeks. Early on, your reflexes will be significantly down, hence there is a time element for this that is important.

### **Traveling**

If you are traveling soon after your operation, try and keep the journey short, try and keep the leg up, and keep taking your anti-coagulant. Do not wear a splint or bandage on the knee as this slows the circulation down, thereby increasing the risk of blood clotting in the veins. You are at increased risk of DVT (deep vein thrombosis) and PE (pulmonary embolus) for about 3 months following surgery. Therefore, if you travel any distance in this time frame, be it by car, train or plane, you should consider thinning your blood out for the trip. Your GP or Dr Holt can organise an oral anti-coagulant (usually rivaroxaban - 10mg tablets) if you wish, and you should take it a couple of hours before the trip and every 24 hours for the next couple of days at least. Such oral anti-coagulants are still

not freely available on the PBS but can be ordered by script for a cost of a few dollars per tablet. The alternative to this is to inject yourself with clexane, like in hospital, but this is less convenient, and you have to travel with needles and syringes.

### **Sleeping**

The hardest thing to achieve after surgery is a good nights sleep. For most people this takes about 3 months to achieve. Early on, it is important to keep the pain under control by taking enough analgesics. As the pain lessens however, it may take more than this and, occasionally, an adjunctive sleeping tablet will help. This is not a long term treatment, but rather, it gets you through to the 3 month mark, at which time everything starts to feel more normal again.

The other thing that is hard, is to sleep on your side. It is important to know that you will not damage the knees by attempting this. Nevertheless, most people find that it is about 3 months before they can do this easily. Early on however, using a pillow either between the legs or to support the top leg, can help.

### **Feeling well**

This sort of surgery will upset your system to the extent that you will lose 5 - 7 kilos in weight. You will lose blood that takes time to replace, especially if you are iron deficient as a lot of women are. Similarly, your immune system will take 3 months to return to normal, and this makes you feel very run down and weak. This will improve however, and by the 3 month mark most people are feeling well again, sleeping well and starting to walk reasonable distances.

It is important to eat iron rich foods to help the recovery of the blood. Iron supplements also help, but constipation is made worse by this. Hence, most people are better not taking these until the pain medications have been reduced and the bowel is functioning normally. If all this is not enough, then an iron infusion can be considered.

### **Review**

Unless otherwise advised by Dr Holt, you should make an appointment to see him at the 6 week mark. That is, some 5 weeks after discharge. All going well, a further appointment will be made for the 3 month mark, at which time the knee will be re-x-rayed. Further follow up will then depend on where you live, progress, etc.

### **Problems**

If you are having any problems, please ring Dr Holt or his office. This can be done through Hollywood hospital if you cannot get through to his office or his personal phone. If the wound gets red, if the knee suddenly swells, if you are having problems with pain control, please ring. Do not rely on you local doctor or local hospital to be able to sort out these problems.

### **For problems, concerns or information:**

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