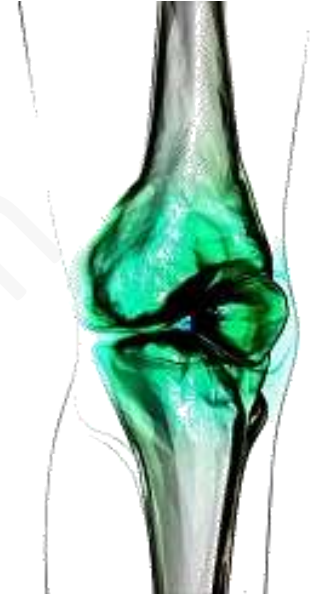


ARTHROSCOPIC KNEE SURGERY

PATIENT GUIDE



Dear patient,

Please take a few minutes to carefully read the following information regarding your knee surgery.

This patient guide has been written to answer many frequently asked questions and to assist you to prepare for your pre- and post-surgery needs.

Thank you and all the best with your recovery!

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Arthroscopic Knee Surgery (Arthroscopy)

An Arthroscopy is performed in hospital, under a general anaesthetic. The Arthroscope is a small (6mm) instrument with a light, which enables us to see almost every part of the inside of your knee. Small instruments are used to trim and tidy the torn or damaged cartilages (menisci) or the cushioned surfaces of the bone (articular cartilage). We cannot give you a "new knee", and the body cannot re-grow these damaged areas – however with appropriate, progressive activities, the majority of knees are improved or "stabilised" following these procedures. The arthroscope is **not** a "magic wand".

BEFORE THE OPERATION

1. Notify your surgeon of specific medication allergies, bleeding disorders or clotting problems, or previous adverse reaction to surgery/anaesthetics;
Provide specific medical history – i.e. diabetes, previous heart or respiratory problems. Check with your treating physician;
2. Stop medications containing aspirin, anti-inflammatory, or other blood thinning tablets (including garlic and herbal supplements) 5 days prior to surgery;
3. Practise your quadriceps and calf exercises (see below). Remove compressive bandages/supports when resting. Practise walking between crutches;
4. Morning of surgery: wash the knee with soap/water only. Do not shave or apply creams/lotions

DISCHARGE FROM HOSPITAL

You will be discharged from hospital after review by your surgeon or assisting surgeon on the same day (day case) or next morning (overnight stay). You are discharged with crutches, support bandage (Tubigrip) and analgesic/pain +/- anti-inflammatory medication.

AT HOME

You should sit with your leg elevated on a pillow, on the bed, couch or chair. You should get up on crutches (partially weight bearing) to go to the bathroom, refrigerator and a short wander, before returning to leg-elevated position. Take it easy during the first 3 to 7 days, but you must do the light exercises and progress with weight-bearing.

Exercises

- a. **Calf exercises;** are commenced before and immediately post-operation. Move your foot and ankle whenever you think of it. This is done to keep the circulation going in your calf muscles and to prevent DVTs (blood clots).
- b. **Quadriceps setting;** with your leg on a pillow or rolled towel, tighten your thigh muscle and push down lightly, not forcibly. You need to see your kneecap move. Hold for a second or two, then relax. Repeat 3 or 4 times.
- c. **Straight leg raise;** initially tighten the thigh muscle, then slowly raise the leg off the bed, holding as straight as possible. Raise to the count of 3, hold for a second, and then slowly lower. Repeat 3 or 4 times.



Quadriceps setting and straight leg raising exercises are to be done slowly and carefully, with no forced or sudden/jerky movements. These exercises are done to "have the muscles working", and are not to be forced.

Quality not quantity – start doing these exercises for approximately 2 or 3 minutes, each hour or so while you are awake. It is always better to do 2 minutes, 10 times per day, rather than 10 minutes twice per day.

Puncture Wounds

There are usually 2 or 3 punctures sealed by Steri-Strips +/- sutures. This area should remain dry until the tapes are removed after 5 to 7 days. When showering, cover the knee with "Glad Wrap" or a garbage bag sealed at the top with masking tape; unless your surgeon has applied a waterproof dressing. The puncture wounds may remain a little tender and puffy for a month or two. Gentle rubbing and massaging may be helpful once the wounds are healed and sealed.

Medications

Anti-inflammatory medication (e.g. Naprosyn, Nurofen) may be recommended after surgery. This helps reduce any swelling and thins the blood (to reduce the chance of blood clots). Take as prescribed with meals – if they cause indigestion, STOP taking them. Panadol or Panadeine may be used for pain as necessary.

Ice

Ice is often helpful, particularly in the first few days following the operation or for continuing pain and swelling. Use for 20 to 30 minutes, 3 to 4 times per day. Initially use plastic over the wound area, to prevent getting wet and risking infection.

Knee Flexion or Movement

Only a small range of movement is encouraged in the first week, but always aiming to straighten the knee, until the dressings and Steri-Strips are removed and the wounds are okay. Following this, the range of movement/flexion is gradually increased; taking this movement to a feeling of tight stretching (not pain) as you bend and straighten the knee.

Crutches/Walking

Walk initially between the crutches, the leg taking weight as is comfortable. Crutches are abandoned as soon as you are comfortable to do so – usually 3 to 5 days after the operation – UNLESS YOU ARE DIRECTED OTHERWISE. The emphasis is on gaining a normal walking pattern, rather than walking distances with a limp.

Walking and standing are limited particularly in the first 3 or 4 weeks to only that which is necessary. Do not walk any great distances or walk for exercise, except to concentrate on your walk pattern – this will be discussed with regard to your pathology.

Knee Swelling

Knee swelling is highly variable. This is aggravated initially by walking or standing for an excessive period of time or any loaded bent-knee exercises.

It may be helped by elevating the leg, a firm elastic bandage (when up and about), anti-inflammatory or aspirin medication, or the use of ice or washing-soda packs.

Washing soda packs can be useful to leave on overnight, or for a couple of hours when resting. These "draw the fluid from the knee". The washing soda crystals are placed in a cotton pillow slip and placed on the knee (do not allow crystals to be directly on your skin). This may be kept in place by a loosely applied crepe bandage.

Pool Exercises/Swimming

Swimming is excellent exercise. This should be commenced as soon as your wounds are well healed (approximately 10 to 14 days). Start by walking and/or cycle type movement in the water. Follow that by doing some gentle freestyle or backstroke with a floatation or "pool buoy" between your knees/thighs (use such a device until you are comfortable with your swimming).

DO NOT do breaststroke or use kickboards. Caution pushing off the wall.

Exercise Cycle or Bike on Trainer (turbo-trainer)

Exercise cycling is usually commenced around the 2 to 4-week mark – depending on your particular knee problem – and only after you have gained range of movement of close to straight and knee bend/flexion to 100° or more, ALWAYS with the seat high. Start with minimal resistance and only cycle for a couple of minutes – be sure there is not swelling or soreness the following day. If this is okay, then gradually increase sessions to 10 minutes or so. Gradually increase the resistance, but not a heavy load, before commencing the outside bicycle (use low gear ratios, no hills). If there is pain or swelling during or after cycling, reduce or stop the activity for the time being.

In 80% to 90% of knee problems, cycling is one of the best activities to maintain knee motion, muscle tone and general health.

Running

The level of running depends on your pathology, your age, demands, etc. This is recommended if your articular surfaces are intact. Running is only commenced after the previous activities have caused no problems and you have discussed it with your surgeon and/or the physiotherapist. Start by wading in the water +/- suspension vest/noodle, then running on the spot on carpet/grass, followed by a little hopping. Once you are able to show a little spring and are hopping equally, you can commence some easy "run-throughs" on grass. Then gradually build up if tolerated.

POST-SURGERY

1. For 3 or 4 days, elevation, simple exercises, and walking between crutches.
2. For 3 or 4 weeks – i.e. "the irritable period", you need to be very cautious during this time. If you are loading your knee too much or pushing the exercises too hard, the knee may swell and become more painful. The aim is to regain the range of movement, muscle control and have the swelling subside. This is a frustrating period for active and athletic individuals.
3. During the first 3 to 4 months after surgery – depending on your knee, your pathology and your biological response – a progressive program of mainly swimming and cycling is recommended.

It takes this length of time for your body to heal/seal or stabilise the joint pathology following injury and surgery. They cannot re-grow or regenerate.

WHAT NOT TO DO

Do not use foot weights, unless directed. Do not use leg extension machines or a treadmill. Do not squat deeper than 60°, or deep lunges, kneel or twist suddenly for at least 8 to 12 weeks.

Do not do any exercises that create pain, clicking or cause swelling afterwards.

COMPLICATIONS – PROBLEMS OF SURGERY

Any procedure involving anaesthesia or surgery carries a small risk. These problems are rare for arthroscopic surgery, but nevertheless can occur. If you are worried by any of these, have a family history or had a personal complication with previous surgery, then discuss it further with your surgeon BEFORE booking surgery.

Haemorrhage/bleeding

To reduce the risk, you must be off all anti-inflammatory medication, aspirin, or other anticoagulant therapy and garlic supplements, for a minimum of 5 or 6 days prior to surgery. If you have a history of bruising easily or bleeding at previous surgery (or your family has such a history) then let your surgeon know so as to discuss before booking surgery.

Bleeding may occur at the wound site but this generally responds quickly to firm pressure applied to the point, firm bandaging and ice. If bleeding occurs inside your knee, an increase in pain, tightness and swelling occurs. Icing, compressive bandages and leg elevation are warranted.

DVT or blood clots in the calf

This may occur, particularly if you do not commence your exercises before and immediately following surgery. The risk is increased if you have a past history of blood clots, you are a smoker, are on the contraceptive pill, or have a family history of the problem. The risk of DVT is reduced by doing your exercises removing or reducing tight bandages, and taking anti-inflammatory medication.

Infection

Infection in the knee is very uncommon in arthroscopic surgery, but can occur, causing increased pain, swelling and temperature. If worried about this, please contact your surgeon.

There can occur some local wound inflammation and occasional local or superficial infection.

Clicks

Clicks may be noticed or become more pronounced for a time following arthroscopic surgery. These may continue for a period of weeks or sometimes months before gradually settling. Do your light exercises in positions that do not cause clicking; this may need to be standing or when lying.

Small skin nerve damage

This is uncommon although may occur. This causes a small area of numbness or altered sensation over the front of the knee, which usually settles with time and massaging; occasionally being persistent.

"No better/worse" following arthroscopic surgery

This may occur because of the nature of the pathology in your knee or your body and tissue response to the surgery. Generally if this occurs the knee is "stirred up" by the procedure (particularly microfracture, lateral patellar release), however with time, patience and modified activities, they generally settle/stabilise. This may take 3 to 6 months to do so, and there may be a need to accept realistic expectations. This will be discussed with you.

There can be rare occasions when the knee will remain "irritable", or due to anxiety and other factors, you can develop a complex pain syndrome; previously called reflex sympathetic dystrophy.

SUMMARY

Knee swelling

Either resistant or recurrent; dependent on the pathology, pathology and time from surgery; but should be reported. It probably means there has been too much weight bearing (walking, loading, etc.), but you can continue pool/swimming and straight leg exercises.

Leg or foot swelling (calf pain)

Due to bandage too tight (need to remove), or occasionally there can be blood clots in the veins – **LET YOUR DOCTOR KNOW** – as this may need to be checked by ultrasound studies.

Gradual improvements are to be expected. Nevertheless, it may take a period of 3 or 4 months to "stabilise". Any setback is usually related to inappropriate or over-enthusiastic exercise.

Ligamentous damage and instability

This is not amenable to simple arthroscopic surgery. This may require larger "ligament reconstruction" operation at a later date, or appropriate modification of activities, appropriate exercises, with or without bracing.

Articular surface damage

This is irreversible. Symptoms may be temporarily relieved by debridement (the "trim and tidy"), but lost joint surfaces are not replaced, and may give continued symptoms (arthritis) and require appropriate exercises, weight reduction; and a modification of activities relative to work, living and recreation +/- sports.

Following meniscectomy (cartilage operation)

The kneecap sometimes becomes more painful for the first time. This should subside if you avoid loading the knee in a bent-position – ie stairs, squatting, climbing, hills, heavy quadriceps exercises or running. You cannot "push through" this pain as it may become worse. Appropriate light exercises +/- taping may assist until the irritability settles.

Time Off Work

This will depend on your joint pathology, your age; and your work demands and how you get to work (drive/public transport/or you may need initially to get a lift with partner/co-worker). A rough guide is:

- Office work – 3 or 4 "working days" (i.e. one week)
- Work involving standing/walking – may be around 3 to 4 weeks
- More manual work – 2 to 3 months or more; depending on your work and respective knee problem
- Work involving climbing/squatting/kneeling – you may need to avoid and/or modify your work pattern. For example: use a stool for low-height work, take the lift and not stairs, etc.

Driving a car

Right knee – when you feel confident of being able to "slam on the brakes" in an emergency – usually 5 to 10 days.
Left knee – automatic-transmission vehicles, 3 to 4 days; manual (clutch) vehicles, 5 to 14 days

Time Off Sport

Time off sport is so variable and dependent on your joint pathology, biological response; progressive exercises without pain and swelling and the type of activities to be undertaken.

Needing a progressive, graduated, rhythmic program.

PLEASE NOTE

It is not just the operation that determines your progress or future problems. There are a combination of factors – your knee, your pathology, and your biological response.

- We encourage you to work with a mix of patience, caution and persistence. Dedicate time to your progressive exercise program – swimming and cycling for example – as these should see your knee condition "stabilise".
- Modification of your activities in relation to your sport, recreation or work may be recommended; to gain realistic expectations.
- Caution, avoidance, or learning modified ways of squatting, kneeling, or climbing. Avoid twisting, loading or running. These matters are discussed with you during the post-surgery follow-up.

Any damage to your knee is not "fixed" by surgery.

- You may gain improvement and ability to function well.
- Any meniscal/chondral damage is "cleaned up", by trimming and tidying any "raggy bits", but it does not re-grow. They may heal, seal and stabilise over a 3 to 6-month period following the surgery; provided appropriate exercises and activities are undertaken and then we see the swelling settling.
- Otherwise, there can be the precipitating factors leading to a "**degenerative cascade**".
- And an ongoing knee problem with progressive arthritis.
- BEWARE: Caution re: quadriceps strengthening exercises for muscle wasting/weakness – the best are the worst!!
- Aim to regain range of movement, lose joint irritability (pain/swelling), and regain muscle tone and form.

AND FINALLY...

Arthroscopy may need to be seen as an **aid to diagnosis and management of a knee problem**, but not as a cure or fix-all type procedure.

Thus it is important to gain realistic expectations and undertake appropriate activities and/or modifications to work, daily living, recreation and sports.

Remember:

| | |
|---------------|---|
| 3 to 4 days | post-surgery |
| 3 to 4 weeks | irritable period |
| 3 to 4 months | biological phase to heal, seal, stabilise |

- Your cartilages (menisci) and articular (cushion) surfaces do not re-grow – no matter what you may hear or read.
- **Lose weight**, wear cushioned shoes, listen to your body/knee.
- With joint pathology/problems it is **not** the old adage of "no pain, no gain".
- Ongoing pain and/or swelling requires modified activities and expectations.

Good luck with your recovery

Please visit www.ianmclean.com.au for further information and links to reputable online orthopaedic resources.

NOTE: No warranty, liability or responsibility can be claimed whatsoever in relation to the information provided, its use or application. Any information, advice or recommendations must be considered in accordance with, and conducted under, expert medical supervision.