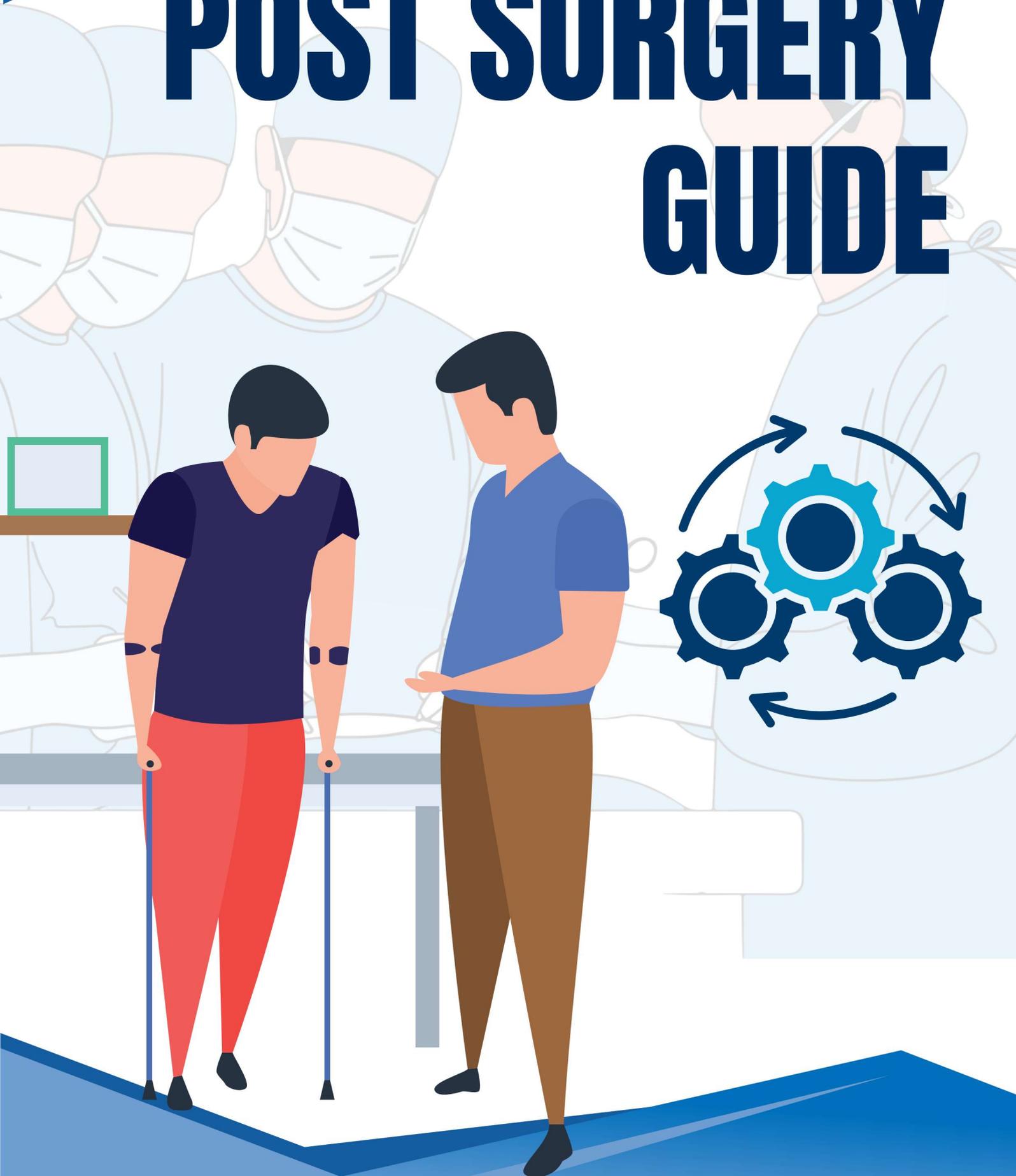


POST SURGERY GUIDE



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INTRODUCTION

Having surgery is a big deal, but it's only the start of your journey. It's important, as with most things to keep the end in mind with long term goals, however, it's also important to focus on the here and now, and short term goals.

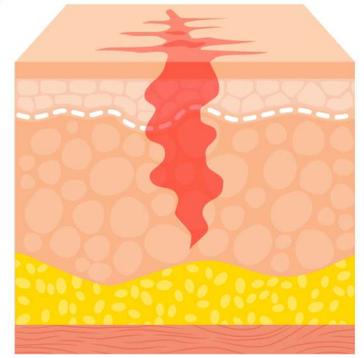
This short information book aims to provide you with practical help and advice on common questions that arise regarding surgery, and some advice/guidance on the various options available to you.

These pages are written by healthcare professionals, who have seen numerous people following their surgery.

As with all generic information, please be aware, that this book does not replace your rehabilitation plan, and any advice given to you by your surgeon should be followed over the information in this book.

Good, luck and work hard!

WOUND CARE



You will have a dressing on the wound after your surgery, and your surgical team will tell you how long that needs to stay in place. Don't remove that dressing until you have been told to, and you will need to avoid getting it wet.

You should keep an eye on your wound and surrounding skin after surgery. Infections can develop post operatively, but they are not common. If your **wound is red, sore, hot, more swollen, oozing, opens up or you feel unwell/have a fever**, you should contact your consultant, the hospital ward or a GP straight away. It is important to treat any infection as soon as possible to stop it getting worse, so don't ignore any concerns you may have.

Once the wound has healed and the scab has gone, you can start massaging the scar. This will help with softening, flattening and desensitising the scar. Scar tissue will be on and below the skin. **To massage the scar, apply a small amount of moisturiser to the area (an oil based cream like E45 is best) and use your fingers or thumb to massage the scar and surrounding tissue.** Use a slow circular motion, followed by side to side movement and then along the length of the scar, so that the skin moves on the underlying scar tissue. You should try to do this 2-3 times a day for a few minutes. The scar will gradually fade over 1-2 years.

Some research suggests using silicon gels or sheets can help the scar mature, whilst helping to prevent an excess of scar tissue. These need to be placed on the scar for 12 hours a day for at least 3 months to be effective. If you want to try these, they can be bought from most pharmacies.



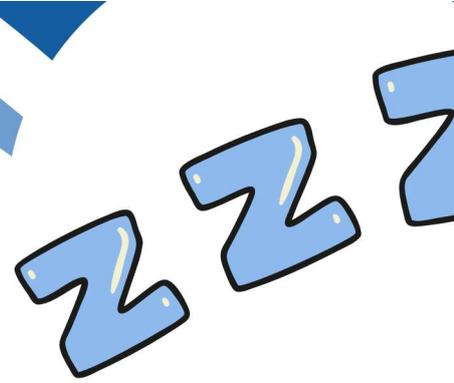
PAIN RELIEF

It is really important to **take adequate pain relief** after surgery. All painkillers work best if taken early so that they stop you feeling pain, rather than just waiting until you feel the pain is severe. If your pain is better controlled, **you will be able to do your rehab exercises** more easily and be more mobile. You will also sleep better. All of these factors will speed up your recovery.

There are different types of pain medication. Commonly, people are advised on using paracetamol and ibuprofen. These are two different types of over the counter pain medication. **Paracetamol is a non-opioid analgesic, whereas ibuprofen is a nonsteroidal anti-inflammatory drug.** This means they can be taken together. A good idea is to spread them out over the day. For example:

- If you take paracetamol at 7am, you could then take ibuprofen at 9-10am, followed by paracetamol again when next allowed according to the packet instructions, then ibuprofen when next allowed and so on. Don't exceed the maximum dose according to the packet instructions.

There are also other types of pain medication, such as opioids, e.g. codeine, and neuropathic pain medication e.g. gabapentin. **If you have been advised on any pain relief, make sure you follow the guidance given to you.**



We know that some people don't like to take pain medication or feel they can manage without it, but **don't be a hero**. Take what you have been offered, and if you are unsure about anything, you can ask your pharmacist.

SLEEP

Having a good amount of sleep and a restful night is really beneficial post-surgery. **Sleep helps with tissue growth** and regeneration, and releases hormones meaning your body does most of its healing while you're asleep. Sleep also helps your body **release endorphins, which are the body's natural pain relief**, and more white blood cells, which is how you fight infection.

And we all know that we are all in a better mood after a good night's sleep, which can really help our mental health. **Plus, waking up feeling rested, means you will have more energy for healing and your rehab!**

ICE



The use of ice, or cryotherapy, can relieve pain, swelling, inflammation or spasm after surgery. To make the most of your ice treatments, you should ice the affected area at least **four times a day, 15-20 minutes at a time**. Icing before or after doing your exercises can make them slightly more comfortable to do, and it can be a good idea to ice after general activity or before bedtime. But you can ice as often as you like!

There are many good ways to use ice, with varying benefits and cost.

ICE PACKS: Cheap and easy to use, ice packs may be made with cubed/crushed ice or bags of frozen vegetables. **Wrap the ice/vegetables in a damp towel** and apply it to the affected area. If using vegetables, refreeze after use and label “DO NOT EAT” (an upset tummy is the last thing you need after surgery!)

CRYOCUFF: You can purchase specific cryotherapy cuffs which **provide controlled cold compression**. A cuff is attached and filled via an attachable cooler which you fill with water and ice. Cuffs can be purchased for specific joints, meaning they are anatomically designed to completely fit the area you have had surgery on. These can be a **very effective way of giving cryotherapy**, but prices can be from £100 for the basic cuff and cooler.



GAMEREDY/PHYSIOLAB: There are also options like the Game Ready or Physiolab systems, which have the advantage of **combining intermittent compression with cold therapy**. Rental of these systems can be expensive however, with the physiolab system for the knee costing around £350 for 4 weeks. However, we do have a physiolab unit at Reflex18 that we can loan you if required.

A few tips:

- NEVER place ice in direct contact with your skin. In all cases, an ice pack should have something like a towel or pillow case between it and your skin.
- Make sure you **check the cold isn't causing an ice burn**.
- Remember, ice is “your friend” after surgery.
- How often you use ice will be able to be decreased gradually as you recover from surgery.

CRUTCHES



After your lower limb surgery, you may be told that you need to walk with crutches to help offload your operated leg. It's important that you follow any instructions given to you by your consultant, **especially about how much weight to put through your leg**. But here are some tips that will help your recovery if you are allowed to put some or full weight on your operated leg:

- The crutches need to be at the **correct height to make sure you don't stress other parts of your body too much**. In standing, the crutch handle should roughly be the same height as your wrist crease with your arm hanging by your side.
- When you walk, put your crutches forward and then step your operated leg into the line of the crutches. Take weight on your operated leg and hands, and then bring your unoperated leg through.
- **Try to get your knee straight when you're walking** (when you put your heel down).
- Try to walk without a limp, by putting as much weight through your crutches as you need to.
- Take your arms out of the crutches before you sit down, and don't put your arms in your crutches until you have stood up. This will mean you are less likely to hurt your arm, which is really important if you are relying on them to take some weight off your leg.

- You can go down to 1 crutch when you feel confident but we can guide you more on this during your sessions. The one crutch should always be used on the opposite side to your operated leg. It may be that a walking stick is appropriate for a period of time also.

The main thing we want you to know is that it is better for your recovery to walk nicely with a walking aid, rather than limp or walk badly without one. If this means a little longer using a crutch whilst you get your strength built up in your leg, then this is a better option for your body in general!

DON'T DUMP THE CRUTCH TOO SOON.

NEUROMUSCULAR ELECTRICAL STIMULATION



Following surgery, **muscle strength and tone decrease significantly in most cases**, and so a large part of initial recovery involves getting the muscles to contract more and increase the force they can produce.

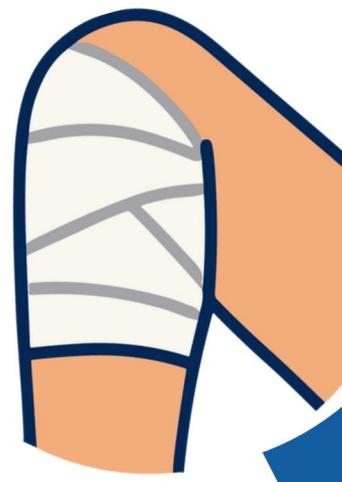
This can be difficult for your body to do when it has undergone a large amount of stress due to surgery and you are experiencing pain, essentially it is more difficult for the message to get from your brain to the muscle to tell it to work.

This is where Neuromuscular electrical stimulation (NMES) can help.

By **placing pads on the surface of the muscles and running a current along the muscle, the device helps your muscle contract by helping the nerves**. This has been shown in many surgeries to result in a quicker improvement in strength and therefore long term outcomes are achieved quicker and more effectively.

Devices can be bought for around £100 online at the time of writing, but there are a few reasons you shouldn't use it: if you have a pacemaker, over an area of active infection, if you are pregnant or if you have peripheral vascular disease. **If in doubt, chat to your physio.**

CONTINUOUS PASSIVE MOVEMENT (CPM)



CPM is used to mobilise a joint and soft tissues after an operation. The range at which it works at can be adjusted to limited and then gradually increase range as pain and stiffness improve. **They are most commonly used on the knee and involve resting the leg in a machine** that then moves back and forward to bend the knee and straighten it again.

This can be very helpful in the short term in order to improve range of movement but it **doesn't seem to have any greater affect than active exercises in the long term**. There are also 2 other things to consider if you do want to use the CPM machine:

- There is a cost associated with hiring these devices of approximately £300 a month.
- **Rehab is an active process and so it is important that you do not become reliant on passive modalities**. These devices will not make your muscles stronger - active exercise will.

IMPORTANCE OF GRADED ACTIVITY



Surgery is just the start of your journey, and is essentially a major trauma that your body needs to recover from. This means that it is incredibly unlikely that you will be back to your best within a few weeks.

Pushing things too hard and too fast can result in a slower recovery or even a worse long term outcome. This is why graded return to activity is necessary. You need to lay the foundations to build on and ensure you are not running before you can walk.

Using things such as step counters are really helpful in understanding how much you are doing and how active you are being. Although you did 8,000 steps a day before surgery, **you may need to build up to this over a period of weeks or months depending on your surgery and how recovery is going.**

A good way to monitor your body's response to increasing activity is through pain and swelling. If the surgical area swells more after increasing activity or you suffer from increased pain that lasts more than 20 minutes after the activity then you probably need to ease off a bit.

DOING YOUR REHAB



The surgeon has done their part, and now it's up to you.

Be ready to **work hard after your surgery, it is not easy to recover from surgery, it is often painful and can be frustrating**, but surgery sets you up to achieve great things, you need to do the rehab to get there.

Initially expect exercises to do daily, and sometimes multiple times a day. **It seems a lot, and takes time, but is vital to get things moving.** Over time you will build the intensity of exercise, and as this happens the frequency will reduce. A key thing is to always put 100% into your rehab sessions. Often we hear that people watch TV or read while doing their exercises, but usually this isn't good enough. **Rehab needs your full focus and effort to get as much out of it as you can.**

It's also worth noting, that as well as your specific rehab for your surgery, **cardiovascular exercise is incredibly important.** Having good cardiovascular health helps your lungs and heart recover from surgery, but it also gives you a foundation to do your rehab. The better your cardiovascular health, the harder the rehab your body will tolerate.

CLOSING THOUGHTS - PLEASE READ



Remember, surgery is tough, the first few days are often painful and it can often initially feel like things are worse after surgery before they then get better.

It is normal to feel apprehensive about surgery, and it is also normal to feel anxious about your recovery afterwards.

At times in your recovery, you will lack motivation and you may feel low - there is a large amount of emotional stress involved in recovery.

So get a strong team around you to support you, ask questions of your clinicians and make sure that you are not on your own on your journey. It's rare that recovery is linear and there will likely be blips on the road, but a great team around you will make it much easier to get to your desired outcome.