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## “Physiotherapy for people with inhibitors”

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# ORTHOPAEDIC SURGERY and physiotherapy for people with inhibitors



**In light of orthopedic operations, how would physiotherapy and orthopedic surgery go together? What would be the things to consider - in preparation, in rehabilitation?**

In the Netherlands for a very long time it was not possible to do surgery in patients with inhibitors. Because if the titre of inhibitor rises and there is an acute, life threatening situation, there are no possibilities left for those persons with haemophilia. So, the surgeons are quite cautious to perform surgeries. But now it has changed - we had a couple of cases that were successful. And I know the same happened in other countries too.

### Before operation

It is under debate whether one needs to exercise before the operation. **The general principle is: better in, better out.** This principle goes for many situations, but people with haemophilia and end-stage arthropathy are often in a lot of pain at this stage. Pain makes it difficult to continue activities, and is therefore a muscle strength killer. **If you have a lot of pain, it is very difficult (often impossible) to gain muscle strength.** So, I say – if you are capable to be as active as you are always, it already helps and is sufficient in a pre-operative situation. **Because after operation you will need all your energy.**

In the case where staying active in a reasonable manner is too difficult, other possibilities are scarce, however **hydrotherapy sessions** are a feasible option.

### After operation

The very first week post-surgery, especially in case of a Total Knee Arthroplasty is a little bit like a survival week. **In haemophilia we use an adapted recovery scheme.** In many diseases (e.g. rheumatoid diseases) it is easy to recover the range of motion of any joint in the first week. But not in haemophilia! **In haemophilia the first five days are critical, also concerning re-bleeds.**

In essence, the adapted schedule means that during these first 5 to 7 days you do not mobilise patients in the meaning of getting up, standing and walking. **Emphasis is put on regaining the range of motion of the knee, both extension and flexion.**



Very helpful is a Continuous Passive Motion (**CPM**) machine- the leg is comfortable lying on the machine (see picture above) and the machine moves really slowly, flexing and extending the knee. It can be used multiple times per day, gradually extending the time spent on the machine.

**If a patient is engaged in physiotherapy, would it be possible to delay/postpone the surgery?**



The thing is, if one has a joint which has had a bleed or several bleeds, then there is a certain point when arthropathy will lead its own way. More than a decade ago this was proved by *Roosendaal et al*, so even if there are no bleeds, the process of arthropathy slowly deteriorates joints. That process can be more intense or less intense, but unfortunately it is unstoppable. This implies that **if you exaggerate your activities every day, this process goes faster.**

On the other hand, **if you think - I want to save my joint-** and you sit a lot, or you take a bike and stop walking, **that will not work either.** Because a joint is composed of living substances, and is not a hinge. To keep it in shape, it has to be used.

**So, the best way, if you have arthropathy in a joint, is to know your limits – not to exaggerate, but also not to do too little.**

