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Knee, Shoulder, Elbow Surgery



Continuous Passive Motion (CPM) Machine Following Elbow Surgery

The continuous passive motion (CPM) machine is used to maintain the movement in the elbow that has been achieved in surgery. The movement of the machine will also help to minimize the fluid in your elbow following the operation.

The CPM machine will be fitted by a physiotherapist, it is important not to adjust the settings on the machine unless it has been discussed with the physiotherapist or surgeon.

Some key fitting points are:

- 1. Maintain that the hinge of your elbow is located at the hinge of the machine (you may need to move your elbow to this position, if your elbow has moved in the machine, check this every 15 to 30 minutes).
- 2. Move your body to maintain that your shoulder is located at the edge of the bed, therefore allowing good elbow position.

CPM Machine Use

The CPM machine is usually in constant use over the first 24 hours, after this period, usually after discussion with your surgeon you may come out of the machine for periods of 5 to 15 minutes depending on whether you are maintaining your range of movement. The machine has a patient control button, pressing the button once will stop the CPM machine, pressing again will start the machine with it moving in the opposite direction.

Stretch/Hold and Movement Cycles

The machine moves through cycles of bending (flexion) and straightening (extension). While you are awake it is also important to hold the positions of extension and flexion for periods of time in effort to maintain your full movement.

Extra padding maybe applied to increase ranges of flexion and extension, this will be discussed with you after application of the CPM machine.

Stretch and Hold Protocol

The protocol is to hold the elbow in full flexion for 10minutes and then allow free movement of the machine for 10 minutes, then hold the elbow in full extension for 10 minutes and then repeat throughout the day.

During the day 10 mins – full flexion

10 mins – free movement in machine

10 mins – full extension

Repeat.

While at sleep Free movement in machine.

Milking Maneuvers

To reduce fluid in your elbow and to achieve full extension/flexion ranges it maybe necessary to work slowly into these ranges before holding for the full 10mins.

This may involve taking the elbow to the maximum range you can tolerate, either in flexion or extension and holding that position for a period of 1-2minutes, reverse the motion of the machine for only a few seconds, and then return the machine to a greater range. Repeat this process until full range is achieved and then begin the 10 minute hold cycle. You may need to repeat this process whenever you have difficulty getting into full range or experience excessive pain in the extremes of movement.

Coming out of the machine

Depending on the quality of your range of movement, your physiotherapist/surgeon may allow you to take breaks out of the machine, to rest, walk or go to the bathroom. Once instructed to take breaks, after the first hour of use, come out of the machine for 5 minutes, on your return to the machine use if you have maintained your range in extension and flexion without relying on extensive milking maneuvers to achieve range, you may increase your rest time to 10 minutes and eventually 15 minutes in every hour. If you have difficulty maintaining your full movements in the machine do not increase your rest periods until you have easily maintained your range of movement.

These are guidelines for use of the CPM machine, in some instances your treating surgeon may request a slightly different protocol, these differences will be carefully discussed with you during the application of the machine.