

Cochrane Review Summary For Use of CPM machine with TKA

Twenty randomised controlled trials of 1335 participants met the inclusion criteria. There is high-quality evidence that continuous passive motion increases passive knee flexion range of motion (mean difference 2 degrees, 95% CI 0 to 5) and active knee flexion range of motion (mean difference 3 degrees, 95% CI 0 to 6). These effects are too small to be clinically worthwhile. There is low-quality evidence that continuous passive motion has no effect on length of hospital stay (mean difference -0.3 days; 95% CI -0.9 to 0.2) but reduces the need for manipulation under anaesthesia (relative risk 0.15; 95% CI 0.03 to 0.70).

This summary of a Cochrane review presents what we know about the effect of continuous passive motion (CPM) as a treatment to improve range of motion and function after knee replacement surgery.

In people who had knee replacement surgery:

- Continuous passive motion improved their range of motion slightly;
- Continuous passive motion may not make any difference to how long they stayed in hospital;

We often do not have precise information about side effects and complications. This is particularly true for rare but serious complications.

Range of motion - Active knee flexion

- People who did not have CPM were able to move their knee an average of 75 degrees
- People who did have CPM were able to move their knee 3 degrees more, an average of 78 degrees.

Range of motion - Passive knee Flexion

- People who did not have CPM were able to move their knee an average of 82 degrees
- People who did have CPM were able to move their knee 2 degrees more, an average of 84 degrees.

Length of Hospital Stay

- People who did not have CPM stayed in hospital an average of 13 days, about the same as people who did have CPM.

Harvey LA, Brosseau L, Herbert RD. Continuous passive motion following total knee arthroplasty in people with arthritis. Cochrane Database of Systematic Reviews 2010, Issue 3. Art. No.: CD004260. DOI: 10.1002/14651858.CD004260.pub2

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