
Effectiveness of prolonged use of continuous passive motion (CPM), as an adjunct to physiotherapy, after total knee arthroplasty

Lenssen, T.A., van Steyn, M.J., Crijns, Y.H., Waltjé, E.M., Roox, G.M., Geesink, R.J., van den Brandt, P.A. and De Bie, R.A., 2008. Effectiveness of prolonged use of continuous passive motion (CPM), as an adjunct to physiotherapy, after total knee arthroplasty. *BMC Musculoskeletal Disorders*, 9(1), p.60.

Setting the scene

A randomised controlled trial investigated the effectiveness of **prolonged CPM** use in the home situation as an adjunct to standardised PT. Efficacy was assessed in terms of faster improvements in range of motion (RoM) and functional recovery, measured at the end of the active treatment period, 17 days after surgery

What did they do?

60 patients with **knee osteoarthritis** undergoing TKA and experiencing early postoperative flexion impairment were randomised over two treatment groups. The experimental group received **CPM + PT for 17 consecutive days after surgery**, Whereas the usual care group received the same treatment during the in-hospital phase followed by PT alone in the first two weeks after hospital discharge. both groups received standardised PT.

The primary focus of rehabilitation was functional recovery and regaining **RoM in the knee**.

TAKE away message

Prolonged use of **CPM slightly improved short-term** RoM in patients with limited RoM at the time of discharge after **total knee arthroplasty** when added to a semi-standard PT programme. **Assessment at 6 weeks and three months after surgery** found no long-term effects of this intervention Neither did we detect functional benefits of the improved **RoM** at any of the

outcome assessments.

FOOD FOR THOUGHT

The prolonged CPM use might have a small short-term effect on RoM, routine use of prolonged CPM in patients with limited RoM at hospital discharge should be reconsidered, since neither long-term effects nor transfer to better functional performance was detected.