

PROSPER Results – For patients

Results of a University of Warwick-led clinical trial show improvement for women taking part in a structured exercise programme following breast cancer surgery

- In non-reconstructive breast cancer surgeries, which includes women having mastectomy and surgery to the axilla (armpit), surgeons aim to remove the cancer and often some nodes in the armpit to control the cancer.
- This targeted treatment can leave patients with debilitating shoulder and arm problems, including chronic pain, restricted movement and arm swelling (known as lymphoedema). Past research has shown that as many as one third women recovering from breast cancer surgery suffer from chronic pain or struggle to return to everyday tasks such as lifting bags and driving.
- With 85% of women now surviving for 5 years after breast cancer, there is a need to support women recovering from breast cancer treatments
- Usual care is to give an advice leaflet to women, explaining exercises to do after non-reconstruction breast cancer surgery. The PROSPER trial designed a new, structured exercise programme, co-developed with patients, which was introduced at 7-10 days after surgery. The programme included three appointments with a physiotherapist, who prescribed stretching exercises, strengthening (from one month) and physical activity.
- All participants in the trial were asked to complete questionnaires on their arm function, pain and overall quality of life over a 12-month period.
- Women who took part in the structured exercise programme had an improvement in their shoulder and arm mobility, also reduced pain at one year, compared to women having usual care only.
- The exercise programme did not increase risk of lymphoedema over one year.
- After 12 months, women in the exercise group reported fewer arm disability symptoms, lower pain intensity, and better physical quality of life than those in the usual care group.

Published in *The BMJ*, the study authors called for wider adoption of the PROSPER programme in cancer services to improve the wellbeing of women recovering from breast cancer surgery. The study was funded by the National Institute for Health Research (NIHR), the research partner of the NHS, public health and social care.