

# The Murphy Programme: The Irish experience of delivering physical activity for cancer survivors

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**Background:** It has been shown that physical activity helps improve cancer survival rate, recurrence and quality of life if a minimum effective physical activity level is reached (>9-15 MET/hrs/week) and maintained over time.

Currently, physical activity programmes are not prescribed as part of usual care in cancer rehabilitation practice. The Irish Cancer Society has run 3 pilot studies to assess the efficacy and safety of a structured physical activity programme delivered in the community and at home.

**Methods:** The Murphy Programme is a 15 week training programme involving walking and resistance training followed by a further 16 week progression phase and a one year follow-up. Eligible participants are 12 months post diagnosis with medical clearance. Primary study endpoints were: markers of physical function (METs, VO<sub>2</sub>, Pace, BMI), safety (risk of exacerbation of lymphoedema, injury), change in quality of life and participant retention. Case studies were assessed for qualitative insight.

**Results:** The programme was delivered to 129 cancer survivors (breast and colorectal). Fitness improved significantly at 16 weeks, with all groups reaching at least 18 MET/hrs/week and lifting at least 1,000lbs in a session ( $p < 0.001$ ). Fitness was sustained at one year. There was a reduction in body fat from 34% to 32% ( $p < 0.001$ ). There was improvement in lymphoedema measures and no exacerbation was reported.

In all groups the overall score for the WHO QOL brief questionnaire increased, showing increased health satisfaction. Retention was high in all groups with at least 86% participating at 16 weeks.

**Conclusions:** This programme proved safe and effective, manageable and sustainable over time. Case studies revealed the positive impact on daily activities and on the management of lymphoedema. Social groups and peer-identity were indirect benefits of the programme. A web app has been developed to support the management of the programme and is currently under testing.

**Key words:** Walking, Resistance, Survivors

**Wordcount:** 300

**Conflict of Interest:** None disclosed

**Funding:** Irish Cancer Society

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