

Cystic Fibrosis Research News

Title:

Steps Ahead: Optimising physical activity in adults with cystic fibrosis: A pilot randomised trial using wearable technology, goal setting and text message feedback

Lay Title:

Can a fitness wearable, goal setting and text message feedback increase physical activity in adults with Cystic Fibrosis?

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What was your research question?

The aim of this research was to determine if fitness wearables with text message feedback and goal setting could increase physical activity levels more than a fitness wearable on its own. We also aimed to find out if this intervention improved other health outcomes such as fitness levels and lung function.

Why is this important?

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Physical activity and exercise are important for people with Cystic Fibrosis (CF) as they have been associated with improved lung function, fitness levels and quality of life. Despite these benefits, the effectiveness of interventions to increase physical activity in this population is still largely unknown. Fitness wearables have become very popular in recent years as a means of encouraging and tracking activity levels. Prior to this research, the use of Fitbits had not been investigated in CF.

What did you do?

We undertook a research trial whereby participants were recruited from an Adult CF centre in Ireland. All participants were tested at baseline (exercise test, lung function and quality of life questionnaires) and they were randomly allocated to one of two groups. Group 1 received a Fitbit Charge 2 and participants set step count goals with their physiotherapist. The participants were sent a text message each week for 12 weeks to encourage increased physical activity levels. Group 2 received the Fitbit only. Both groups were re-tested at 12 weeks and at 24 weeks.

What did you find?

Step count increased significantly for Group 1 that received the Fitbit with goal setting and text message feedback. Step count increased by 28% over 12 weeks and this was maintained at the 24 week follow up. Whereas the group that received the Fitbit only (Group 2) reduced their step count by 1% during the first 12 weeks.

Furthermore, Group 1 also demonstrated improved fitness levels at 12 weeks.

There was no effect on any other outcomes for either group.

What does this mean and reasons for caution?

An intervention using a fitness wearable, goal setting and text message feedback increased step count and fitness levels in adults with CF. This was evident at 12 and 24 weeks. Longer term studies are required to determine if this intervention could encourage regular physical activity levels for people with CF.

What's next?

More research is required to determine the best ways of increasing physical activity levels in the long term in adults with CF.

Original manuscript citation in PubMed

<https://pubmed.ncbi.nlm.nih.gov/36402730/>