



Cystic Fibrosis Research News

Title:

PHYSICAL ACTIVITY AND ASSOCIATIONS WITH CLINICAL OUTCOME MEASURES IN ADULTS WITH CYSTIC FIBROSIS; A SYSTEMATIC REVIEW.

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What was your research question?

How physically active are adults with Cystic fibrosis (CF) and does physical activity have an effect on their health?

Why is this important?

Adults with CF are encouraged to do physical activity to benefit their health. Physical activity is not usually measured and is measured differently by different CF centres. This means that not much is known about how active individuals with CF are or the health benefits.

People usually do less physical activity as they get older, this could be made worse in adults with CF due to the progression of their CF. Individuals with CF are living longer than ever. Therefore, it is important to understand how active adults with CF are and the effect this has on their health.

What did you do?

Online research databases were searched to find all studies measuring physical activity in patients with CF. Articles were screened using pre-defined criteria to see if they could be included. Studies were removed if they didn't include adults with CF, didn't measure physical activity or were not written in English.

Multiple people assessed the quality of the included studies and combined the relevant information from each study. The findings were then discussed together in three sections; Physical activity levels in adults with CF compared to guidelines, compared to non-CF peers, and the effect of physical activity on health.

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What did you find?

In the 18 studies reviewed 11 different tools were used to measure physical activity including 1 accelerometer (activity monitor) and 10 separate questionnaires.

Adults with CF did not meet physical activity guidelines in the majority of studies reviewed. Physical activity was similar in adults with CF when compared to their non-CF peers. The benefit of physical activity for improving lung function remains unclear, although higher levels of physical activity appears to be associated with higher exercise capacity (fitness). The majority of the studies were graded as low quality.

What does this mean and reasons for caution?

This review suggests that physical activity levels in adults with CF are similar to individuals without CF, even though they do not meet recommended physical activity guidelines.

It is difficult to study the benefits of physical activity for patients with CF as they often have periods of being unwell and the severity of CF varies between individuals making it difficult to make comparisons.

The measurement of physical activity varies between studies and many measurement tools do not provide enough information. Using the same measurement tools and reporting the same outcomes may improve understanding of physical activity in CF.

What's next?

The current review has highlighted a requirement for high quality studies designed specifically to explore physical activity in adults with CF. Further work is needed to determine the benefits of physical activity in adults with CF, with an aim of providing an evidence base to inform guidelines and clinical practice.

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