

## Factors related to higher level of physical activity in Swedish CF-patients - A registry based cross sectional study

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**Abstract text:** Objectives: Physical activity and exercise are important components and part of physiotherapy for all patients in the basic treatment in Swedish CF care. The aim was to study the level of physical activity in the Swedish CF population measured with International Physical Activity Questionnaire (IPAQ) and factors associated with IPAQ level moderate or high compared to low.

Methods: In this registry based cross sectional study, data from the latest annual visit between 2020-2022 was collected from the national Swedish CF registry. Inclusion criteria was confirmed CF diagnosis and being >16 yrs. Associations between sex, BMI, FEV<sub>1</sub> % pred, CFTR modulator therapy, chronic PsA and reporting IPAQ level moderate or high were analyzed by logistic regression, estimating Odds ratios (OR) and their 95% confidence intervals (95% CI).

Results: In total 341 individuals were included; females 146 (44.7%), homozygous F508del 156 (45.7%), CFTR modulator therapy 149 (45.7%, the majority on Orkambi), mean age 34.1 yrs (±12.1), BMI mean 22.9 (±3.3), FEV<sub>1</sub> % predicted mean 75.8 (±21.4). IPAQ level low was reported by 87 (25%) individuals, and level moderate and high by 118 (35%) and 136 (40%) respectively. There were associations between FEV<sub>1</sub> % predicted as well as having CFTR modulator therapy and IPAQ level moderate or high. These associations remained after adjusting for sex, BMI and age: FEV<sub>1</sub> % predicted OR 1.01 (95% CI 1.00, 1.03; CFTR modulator therapy 1.72 (95% CI 1.02, 2.89).

Conclusion: Three quarters of the study population reported moderate or high level of physical activity, indicating that the majority of people with CF in Sweden are sufficiently physically active in their everyday life. Factors associated with being sufficiently physically active were preserved lung function and CFTR modulator therapy. These results can prove to be a good help in guiding physiotherapists in their clinical decision making and give indications to where our interventions should be directed.

**Conflict of interest to declare?:** No

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