



# Cystic Fibrosis Research News

## **Title:**

Recommended shielding against COVID-19 impacts physical activity levels in adults with cystic fibrosis

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## **What was your research question?**

Using a web-based survey, we studied potential changes in the therapy regimes for individuals living with cystic fibrosis, with and without lung transplantation. This survey took into account health-related markers as well as their communication with their providers during the coronavirus pandemic.

## **Why is this important?**

Severe acute respiratory syndrome – coronavirus-2 (SARS-CoV-2) has caused an ongoing worldwide pandemic requiring stringent protective measures to minimise the spread of the virus. The World Health Organization labelled the disease caused by SARS-CoV-2 as coronavirus disease 2019 (COVID-19). People with chronic lung diseases including cystic fibrosis may have a higher risk for complications caused by COVID-19. To date, little information exists about the impact of SARS-CoV-2 on individuals with cystic fibrosis, and particularly on those with a lung transplant. Understanding their experience is essential for developing the strategies required to ensure the care of people with cystic fibrosis during times with limited face-to-face contact with their specialist healthcare teams.

## **What did you do?**

We conducted a web-based survey among Swiss adults with cystic fibrosis, with and without lung transplantation, covering the study period from March 16<sup>th</sup>, 2020 – the day the “extraordinary situation” was officially declared in Switzerland introducing stringent

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measures protecting the public – until May 16<sup>th</sup>, 2020. The questionnaire was developed with the support of people with cystic fibrosis and contained questions on medical characteristics and current therapies, and individuals' perceptions towards various medical and non-medical aspects related to the SARS-CoV-2 crisis. All study data was collected anonymously.

## What did you find?

327 adults (of which 83 were lung transplant recipients) responded to our survey and this represents more than half of the Swiss adult CF population. There were 45 individuals (13.8%) who reported COVID-19 like symptoms. Only 3 subjects tested positive for SARS-CoV-2 and all 3 presented with mild symptoms and no hospitalisation. Almost half of the survey respondents (45%) reported that they were undertaking less physical activity during the lockdown. However, 79% of participants reported no change in doing their traditional airway clearance and 91% maintained their inhalation therapies. Distress regarding a potential SARS-CoV-2 infection or worsening of lung disease were not found as a major concern for the survey respondents.

## What does this mean and reasons for caution?

Our survey revealed that the direct impact of SARS-CoV-2 on the lung health of individuals with cystic fibrosis living in Switzerland was mild. This is despite people with chronic lung diseases like cystic fibrosis being considered a high-risk population for worse outcomes in COVID-19. However, the strict lockdown measures substantially affected peoples' physical activity levels and this is concerning as physical activity is a vital cornerstone of CF therapy. Switzerland has one of the best healthcare systems worldwide, consequently, our findings may not be transferable to countries with inferior healthcare systems.

## What's next?

Our survey was conducted during one single point in time covering the period from 16<sup>th</sup> March to 16<sup>th</sup> May 2020. The long-term consequences of COVID-19 associated protective measures including social distancing and isolation policies on health care for high-risk groups need to be understood, particularly, if a second pandemic wave occurs and extends protective measures for a long period of time.

## Original manuscript citation in PubMed

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