



Exercise capacity impairment after COVID-19 pneumonia is mainly caused by deconditioning

Kathleen Jahn¹, Mihaela Sava², Gregor Sommer ³, Desiree M. Schumann¹, Stefano Bassetti⁴, Martin Siegemund^{5,6}, Manuel Battegay², Daiana Stolz¹, Michael Tamm¹, Nina Khanna² and Katrin E. Hostettler¹

¹Clinics of Respiratory Medicine, University Hospital Basel and University of Basel, Basel, Switzerland. ²Division of Infectious Diseases and Hospital Epidemiology, University Hospital Basel and University of Basel, Basel, Switzerland. ³Dept of Radiology, University Hospital Basel and University of Basel, Basel, Switzerland. ⁴Division of Internal Medicine, University Hospital Basel and University of Basel, Basel, Switzerland. ⁵Dept of Clinical Research, University Hospital Basel and University of Basel, Basel, Switzerland. ⁶Dept of Intensive Care Medicine, University Hospital Basel and University of Basel, Basel, Switzerland.

Corresponding author: Katrin E. Hostettler (katrin.hostettler@usb.ch)



Shareable abstract (@ERSpublications)

Not pulmonary factors, but physical deconditioning is the main limiting factor of exercise capacity in patients after severe COVID-19 pneumonitis. This underscores the importance of an early rehabilitative intervention in these patients. <https://bit.ly/2XVvr6C>

Cite this article as: Jahn K, Sava M, Sommer G, *et al.* Exercise capacity impairment after COVID-19 pneumonia is mainly caused by deconditioning. *Eur Respir J* 2022; 59: 2101136 [DOI: 10.1183/13993003.01136-2021].

This single-page version can be shared freely online.

Copyright ©The authors 2022

This version is distributed under the terms of the Creative Commons Attribution Non-Commercial Licence 4.0. For commercial reproduction rights and permissions contact permissions@ersnet.org

Received: 23 April 2021
Accepted: 10 Oct 2021

To the Editor:

The new severe acute respiratory syndrome (SARS) coronavirus 2 (SARS-CoV-2) can cause severe pneumonia characterised by dry cough, dyspnoea, hypoxaemia and diffuse ground glass opacities on chest computed tomography (CT) [1]. While much has been learnt concerning diagnosis and treatment of coronavirus disease 2019 (COVID-19) during the first year of the pandemic, only scarce data is available concerning post-COVID long-term pulmonary sequelae. Data about pulmonary function in early convalescence demonstrated impaired diffusion capacity, lower respiratory muscle strength, and radiological abnormalities [2, 3]. Herein we report data of cardio-pulmonary exercise testing (CPET) 3 months after severe COVID-19 pneumonitis.

