

## Regular Physical Activity is Associated with Better Lung Function Among Smokers

*The results of this ISGlobal study strengthen the epidemiological evidence supporting a link between physical activity and respiratory health*

Barcelona, 23 January 2018.- **Leisure-time vigorous physical activity** is associated with **better lung function among current smokers**. This is the main conclusion of a [new study](#) published in *Thorax* and led by researchers from the Barcelona Institute of Global Health ([ISGlobal](#)), an institution supported by "la Caixa" Foundation.

The study uses information collected from a long-standing collaboration between 25 European research centres in 11 countries (the European Community Respiratory Health Survey, ECRHS), which is coordinated from Imperial College London. Over a **10-year period, 3,912 adults** (aged 27-57 years at the start of the study) were considered as being active if they exercised with a frequency of two or more times a week and a duration of one hour a week or more.

Associations between physical activity and lung function were only apparent among current smokers, suggesting the existence of an inflammation-related biological mechanism.

**Elaine Fuertes**, first author of the paper and ISGlobal researcher, explains: "This result highlights **the importance of physical activity among current smokers specifically**, which are a group at higher risk of poor lung function".

The work, which is part of the Ageing Lungs in European Cohorts ([ALEC](#)) EU Horizon 2020-funded\* project coordinated by Imperial College London, also found that participants who were active at the end of the study, either by becoming active or remaining active throughout, had significantly higher lung function than those consistently inactive. According to Fuertes, "one possible explanation for this result may be that **physical activity improves respiratory muscle endurance** and strength via a short or moderate term effect that requires sustained physical effort to maintain it".

"The results of this study strengthen the epidemiological evidence supporting an **association between physical activity and respiratory health**", concludes **Judith Garcia-Aymerich**, senior author and head of the Non-Communicable Diseases and Environment Programme at ISGlobal. This evidence should be used to "inform and support public health messages that promote increasing and maintaining physical activity as a way of **preserving respiratory health in middle-age adults**", she adds.

### Reference

Fuertes E, Carsin AE, Antó JM, Bono R, Corsico AG, Demoly P, Gislason T, Gullón JA, Janson C, Jarvis D, Heinrich J, Holm M, Leynaert B, Marcon A, Martinez-Moratalla J, Nowak D, Pascual Erquicia S, Probst-Hensch NM, Raherison C, Raza W, Gómez Real F, Russell M, SánchezRamos JL, Weyler J, Garcia Aymerich J. [Leisure-time vigorous physical activity is associated with better lung function: the prospective ECRHS study](#). *Thorax*. 2018 Jan 6. pii: thoraxjnl-2017-210947

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## About ISGlobal

The Barcelona Institute for Global Health, ISGlobal, is the fruit of an innovative alliance between academic, government, and the "la Caixa" Foundation to contribute to the efforts undertaken by the international community to address the challenges in global health. ISGlobal is a consolidated hub of excellence in research that has grown out of work first started in the world of health care by the Hospital Clínic and the Parc de Salut MAR and in the academic sphere by the University of Barcelona and Pompeu Fabra University. The pivotal mechanism of its work model is the transfer of knowledge generated by scientific research to practice, a task undertaken by the institute's Education and Policy and Global Development departments. ISGlobal a member of the CERCA programme of the Generalitat de Catalunya.

## ISGlobal's Press Office

Pau Rubio

[pau.rubio@isglobal.org](mailto:pau.rubio@isglobal.org)

003493 214 73 33/0034696 91 28 41

Marta Solano

[marta.solano@isglobal.org](mailto:marta.solano@isglobal.org)

003493 214 73 33 / 0034661 45 16 00

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