

Dual Test Gas Pulmonary Diffusing Capacity Measurement During Exercise in Humans Using the Single-Breath Method

Stine B. Nymand¹, Jacob Peter Hartmann^{1,2,3}, Helene Louise Hartmeyer¹, Iben E. Rasmussen¹, Amalie Bach Andersen¹, Milan Mohammad¹, Susan Al-Atabi³, Birgitte Hanel³, Ulrik Winning Iepsen^{1,4}, Jann Mortensen^{3,5}, Ronan M. G. Berg^{1,2,3,6}

¹Centre for Physical Activity Research, Copenhagen University Hospital - Rigshospitalet ²Department of Biomedical Sciences, Faculty of Health and Medical Sciences, University of Copenhagen ³Department of Clinical Physiology and Nuclear Medicine, Copenhagen University Hospital - Rigshospitalet ⁴Department of Anesthesiology and Intensive Care, Hvidovre Hospital ⁵Department of Clinical Medicine, Faculty of Health and Medical Sciences, University of Copenhagen ⁶Neurovascular Research Laboratory, Faculty of Life Sciences and Education, University of South Wales

Corresponding Author

Ronan M. G. Berg
Ronan@sund.ku.dk

Citation

Nyman, S.B., Hartmann, J.P., Hartmeyer, H.L., Rasmussen, I.E., Andersen, A.B., Mohammad, M., Al-Atabi, S., Hanel, B., Iepsen, U.W., Mortensen, J., Berg, R.M.G. Dual Test Gas Pulmonary Diffusing Capacity Measurement During Exercise in Humans Using the Single-Breath Method. *J. Vis. Exp.* (204), e65871, doi:10.3791/65871 (2024).

Date Published

February 2, 2024

DOI

10.3791/65871

URL

jove.com/video/65871

Materials

Name	Company	Catalog Number	Comments
HemoCue Hb 201+	HemoCue, Brønshøj, Denmark	Unkown	For measurements of hemoglobin
Jaeger MasterScreen PFT pro (Lung Function Equipment)	CareFusion, Höchberg, Germany	Unkown	For measurements of D _L CO/NO
Mouthpiece	SpiroBac, Henrotech, Aartselaar, Belgium	Unkown	Used together with the Lung Fuction Equipment. (dead space 56 ml, resistance to flow at 12 L s ⁻¹ 0.9 cmH ₂ O)
Nose-clip	IntraMedic, Gentofte, Denmark	JAE-892895	
Phenumotach	IntraMedic, Gentofte, Denmark	JAE-705048	Used together with the Lung Fuction Equipment
SentrySuite Software Solution	Vyaire's Medical GmbH, Leibnizstr. 7, D-97204 Hoechberg Germany	Unkown	
Test gasses	IntraMedic, Gentofte, Denmark	Unkown	Concentrations: 0.28% CO, 20.9% O ₂ , 69.52% N ₂ and 9.3% He