



# Relationship between 1-minute and 5-repetition sit-to-stand tests in COPD

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European Respiratory Journal 2017 50: OA3410; DOI: 10.1183/1393003.congress-2017.OA3410

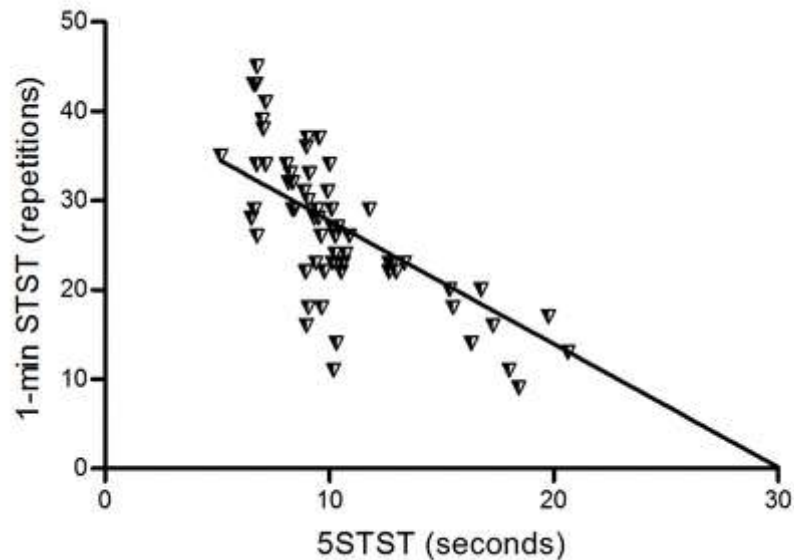
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## Abstract

One-minute sit-to-stand test (1-min STST) is a measure of exercise capacity that is strongly correlated with mortality in Chronic Obstructive Pulmonary Disease (COPD). When compared with the 6-minute walk test (6MWT) or the Incremental shuttle walk test (ISWT), the 1-min STST has the advantage of requiring only limited space, which makes it feasible in most healthcare settings. Although practical, this test is highly demanding for some patients. The five-repetition sit-to-stand test (5STST) is quicker and has also been correlated with the ISWT. If correlated with the 1-min STST, the 5STST might be a simpler measure to apply in some patients. This study aimed to assess correlations between the 1-min STST and the 5STST.

Patients with COPD were recruited from routine pulmonology appointments and primary care centres in Aveiro, Portugal. Assessments included the 5STST and the 1-min STST. Correlations among tests were assessed with the Spearman correlation coefficient.

66 patients with COPD (66±10yrs; 74%male; FEV1 60±28%predicted) participated. A high negative and significant correlation was found between the 5STS and the 1-min STST ( $r_s=-0.778$ ,  $p<0.001$ ) (Figure 1).



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5STST is a simple and quick measure to consider if the aim is to screen patients' functional exercise capacity. This test might be a good alternative to use in clinical practice, especially in more severe patients. More studies are needed to support these findings.

### Footnotes

This abstract was amended on 27 December 2017 to correct an error in the author list.

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### We recommend

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Sara Miranda et al., *European Respiratory Journal*

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Marc Beaumont et al., *European Respiratory Journal*

Comparison between six minutes walking test and sit-to-stand test in COPD patients

Marc Beaumont et al., *European Respiratory Journal*

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MK Cartlidge et al., *Thorax*

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P Kanabar et al., *Thorax*