

1 **Performance response to endurance training studies – a reminder**

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10 TO THE EDITOR: Souza et al. (1) in their study outline several protocols for research to be conducted  
11 outside the laboratory. We would like to complement their Viewpoint by pointing out some methods  
12 for participants' self-assessment of endurance performance. Given the applied nature of training studies,  
13 which are often featured in this Journal (2,3), it is curious that researchers sometimes choose not to  
14 directly assess the performance response to an endurance training intervention (2). This is at odds with  
15 evidence that physiological adaptations can be uncorrelated with performance changes (3). Although  
16 logistics, practicality, and participant burden may dictate methodological choices, self-assessment of  
17 endurance performance can be implemented with relative ease, provided that instructions are followed.  
18 Cycling-based time trials and critical power testing can be performed at home or outdoors, with the help  
19 of smart trainers or power meters (4,5). Running-based time trials and critical speed testing can be  
20 completed on athletics tracks or treadmills, using just a stopwatch (5). Conceivably, self-assessed  
21 performances may not be as valid as their laboratory-based equivalents, particularly in the case of  
22 nonathletes, due to a lack of motivation and/or experience to perform maximally. However, preliminary  
23 data suggest that performance reliability is not compromised in the case of recreationally trained cyclists  
24 (4), underlining the usefulness of a home-based approach. Whether endurance training studies are  
25 conducted entirely in the laboratory, remotely, or using a hybrid format, is up to research teams to  
26 decide. Regardless, such studies will always benefit from a performance test to demonstrate the impact  
27 of observed physiological adaptations.

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29 **Disclosures**

30 None

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32 **References**

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