

From: [Loren Lewis](#)
To: [Steven.Markowitz](#); [Terrie Barrie](#); [einvlleger`](#); [Jason Jones](#); [DOL Energy Advisory Board Information](#)
Subject: Re: Public Comment ABTSWH Meeting April 22 - 23, 2021.
Date: Monday, April 26, 2021 11:15:28 AM

CAUTION - The sender of this message is external to the DOL network. Please use care when clicking on links and responding with sensitive information. Send suspicious email to spam@dol.gov.

Dear Dr. Markowitz,

As I have previously stated, I think it is extremely important and I highly recommend that any recommendations referring to the *AMA Guides to the Evaluation of Permanent Impairment*, 5th Edition, (*The Guides*) should be consistent with the actual language of that reference, and should be listed in that reference. It should not project or recommend an unsupported personal opinion. There are no listed preferences listed in *The Guides* for what constitutes an appropriate exercise test, but there are some general discussions in Sections 5.4f, p. 101 and 5.10, p. 107, as well as Section 3.1a, pp. 26-28. Some of this information is now outdated just because there have been more advancements since publication of this information, such as "a motor driven treadmill with varying grades and speeds is the most widely used device" may have been replaced by bicycle ergometry. Also, the 6-Minute Walk Test and other modalities of exercise testing have been developed since publication of *The Guides*, and many of these are based on adequate scientific testing. I think it is important that the testing is valid and accurately reflects the individuals aerobic/exercise capacity and that some "standards" should be observed. For instance, the ATS has provided recommended standards for 6-Minute Walk Testing and the appropriate standard for the testing protocol should be met. This and other testing protocols should follow the quality standards recommended by the author(s) of the testing protocol. Supplemental information is also available in the scientific literature and in *The Guides*. In Table 3-1, the New York Heart Association functional classification standard is listed; in Table 5-1, the ATS "Impairment Classification of Dyspnea" is listed; and in Table 5-8, the "Impairment Classification for Prolonged Physical Work Intensity" lists "excess energy expenditure" determinations for various oxygen consumption and work intensity levels (Astrand and Rodahl, "Textbook of Work Physiology: Physiological bases of exercise." [<https://lib.ugent.be/catalog/rug01:000881322>]). This supplemental information provides limited supportive estimates of exertional capacity and performance intensity, and they are actually listed in *The Guides*.

Alternate, valid determinations for oxygen consumption have been determined based on considerable scientific testing and these have been demonstrated for testing formats such as the ATS developed 6-MWT. The American College of Sports Medicine has also determined the metabolic rates of various common activities, listed in METs, and this is published in the "Compendium of Physical Activities", originally developed in 1989 and published in 1993. These levels of exercise are determined by comparison to exercise testing and this information is updated regularly, and is based on valid scientific testing and re-testing.

[TITLE: Compendium of physical activities: an update of activity codes and MET intensities
SOURCE: Medicine and Science in Sports and Exercise 32 no9 S 2000 supp].

The point is, there are many valid ways of accurately measuring and demonstrating exertional capacity, as accurately as measuring pulmonary function. The standard of the test or measurement modality is appropriately established by the author(s) of the respective test and the supporting scientific basis and information they publish. *The Guides* does not list a preferred test format. Exercise testing should be considered consistent with the several discussions of this topic found in various sections of *The Guides*. But, as stated, any position of the DEEOIC and any recommendations provided to them should be based on the required reference, which currently is designated as the *AMA Guides to the Evaluation of Permanent Impairment*, 5th Edition. It should NOT be based on someone's personal opinion.

I hope that you consider these thoughts.

Sincerely,
Loren Lewis, MD, MPH
OccHealth Services, PLLC
