

The “guidelines” go on to make clear the health advantages of adequate exercise as well as recommendations on the type and frequency of exercise for people of different ages. It is intended to serve policy makers, health care professionals, educators, and the general public in moving America toward a more active lifestyle. The findings are possibly best summarized by this from the Secretary’s of Health and Human Services opening letter, “*We know that sedentary behavior contributes to a host of chronic diseases, and regular physical activity is an important component of an overall healthy lifestyle.*” And from the summary, “*All Americans should avoid inactivity.* Some physical activity is better than none, and adults who participate in any amount of physical activity gain some health benefits.” (Emphasis added.)

If you’re familiar with my writing, you know that I consider Coherent Breathing, at its simplest, to be nothing more than *a specific form of exercise*. I also believe that many of the physical and psychological health advantages ultimately accrue from its “exercise effects”, i.e., more robust blood flow, gas exchange, energy production, etc. The bottom line in my mind - *breathing* is a form of exercise that we can and should be engaged in all the time, circumstances permitting. ***Breathing is the most basic exercise.***

Its an interesting fact that the diaphragm (and intercostals) are the only muscles we can consciously exercise without the engagement of other skeletal muscles. This “isolation” allows us to just sit and breathe if we wish. However, if we try to exercise any other significant muscle or muscle group to any degree what happens? The diaphragm must begin working harder, and the harder we work other muscles, the harder the diaphragm must work. Why? Because the diaphragm is the mediator of gas exchange and circulation, gas exchange and circulation are the mediators of energy production, and energy production is the mediator of work.

Returning to the 2008 guidelines, I was hopeful that they would expound on the Surgeon General’s “growing understanding” of the physiological mechanisms that yield the many health benefits that accrue from regular exercise, but the recommendation is completely devoid of such information. Instead, it focuses almost exclusively on statistical outcomes that justify the exercise recommendations, which of course is excellent and necessary, but I am left needing to know more...

The development of the *2008 Physical Activity Guidelines* was an outcome of a 2006 initiative by the DHHS to determine if there was sufficient evidence to create a such a comprehensive set of guidelines in the first place. It culminated in an October 2006 workshop of the Boards of Food and Nutrition, and Population Health and Public Health Practice, both of the Institute of Medicine, titled “*Adequacy of Evidence for Physical Activity Guidelines*”.

The goal of the workshop was to conduct a review of all relevant evidence relating to physical activity and the general population where (to be consistent with the FDA) the 5 areas of evidence are: efficacy, effectiveness, dose, potential adverse events, and *mechanisms of action*, recognizing that there may be more than one mechanism relating to a single health benefit. Yet in this document there are only 4 instances of the use of the term with no supporting discussion.

In summary, the *2008 Physical Activity Guidelines* present strong evidence that exercise is critical to health and well-being, and it presents equally strong recommendations for every American to engage in physical activity. In other words, it offers us pretty clear advice on *what* the health benefits of exercise are. It also offers recommendations on *what* types of exercise we might engage in to realize these benefits. But alas, we are left completely in the dark as to *why* such benefits are realized.

Thank you for your interest and consideration,

Stephen Elliott - COHERENCE

Links to documents:

<http://www.health.gov/paguidelines/guidelines/default.aspx>

<http://helix.od.nih.gov/nihradio/20090220PAG.mp3>

http://www.nap.edu/openbook.php?record_id=11819 (free ebook)

<http://www.cdc.gov/nccdphp/sgr/pdf/execsumm.pdf>