



# *ASEP* Newsletter

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## *The Search*

*During the recent months, it has become abundantly clear to me that there is a lot of misinformation pertaining to exercise in generally and, specifically, Exercise Physiology. Many of these so-called “urban myths” have been perpetuated through the years and, frankly, they continue to be debated today.*

*As a Professor in academia, each and every semester I seem to hear the same thing pertaining to lactate (i.e., an athlete needs to flush out the lactate so it does not cause soreness the next day). I can only roll my eyes as I hear this rhetoric. The fact that we*

*know lactate clears in under an hour post-exercise and, therefore, cannot cause soreness 24 to 48 hours later seems to be lost.*

*However, it does provide a nice lead-in to a discussion of bioenergetics and the production of lactate. Recently, as I watched a televised portion of the Vuelta a Espana (Tour of Spain), the commentators were discussing the intensity that each rider was involved with on this particular day. The commentators noted that they would not go “all out” today but rather just “blow the carbon off” the engine to prepare for the next day.*

*“Blow the carbon off” is a term used for car engines during a time when Regular gasoline would leave carbon residue on the pistons. This is not a human physiological occurrence. Humans do not have carbon to blow off of their engine (i.e., the myocardium or the skeletal muscles).*

*In a graduate class, the discussion was focused on research that involved exercise protocols for cardiac rehabilitation. My argument was that a sedentary lifestyle was a probable mechanism behind most cardiac events and that exercise was a necessary component in the rehabilitative process.*

*The debate was over the intensity of exercise prescribed for the post-MI patients. The argument against utilizing high intensity work for these cardiac patients was, as one student put it, so their heart would not “explode” during the exercise session. “Explode?” That is a scary thought. Fortunately, I am not aware of many case studies where the myocardium actually “exploded.”*

*Lastly, during an undergraduate lecture about blood pressure a student commented that he “heard” that if you drink orange juice it will lower your blood pressure. Upon further inquiry it was*

never determined where he heard this but that in fact, he did hear it somewhere.

*The profession of Exercise Physiology and its practitioners are bound to a pledge that our dissemination of information is based on research findings and not on what we “hear”. To be accepted as a legitimate healthcare profession, we must provide legitimate information we know to be as close to the truth as possible. To provide this “truthful” information, it is imperative that we find the answers in research.*

*One common occurrence that I experience with student papers is their references include websites found throughout the internet. I point out to them that this is not a web-based journal but rather an opinion piece. In response though, they may note that the author is an MD or PhD.*

*In reality, as we read from the websites, we do not know if this person is truly a medical doctor or someone playing doctor (forgive the pun). Peer-reviewed journals are essential tools for the dissemination of information. Journals within our field are held to a standard that allows for close scrutiny of material that may one day find its way to the public. That material is the very information that constitutes the scientific knowledge by which our profession advances.*

*It may seem that these examples are scrutinizing the concepts beyond what is necessary. Perhaps one might think that my attention to detail associated with wording (i.e., exploding heart) is overdone. But, I would argue that it is not overdone and in fact is a necessary component to getting our message to the public that we are credible healthcare professionals.*

*We must be precise in our wording and in the information we share with friends, colleagues, and clients. As noted earlier, this precision in wording and conceptual “facts” legitimizes our position and our profession. The education of our students and the general public is supported by our knowledge and laboratory experiences to find and understand the right answers.*

*It is ethically and professionally more acceptable to tell a client that you “do not know” the answer to his or her question, but that you will search for the answer. This means that you will also avoid perpetuating yet another urban myth.*

*At the heart of “The Search” is to read and compare legitimate information from highly reliable sources. Also, please appreciate that the profession of Exercise Physiology is new. Exercise physiologists, like most researchers and healthcare professionals do not have all the answers to many of the pressing questions that human beings face each and every day. Equally important, it is imperative that we dispel the myths that have inundated our field for decades. If we provide this level of service to the public, it is more than reasonable that they will “Search” us out in confidence.*