

Commentary on the 2007 ACSM Annual Meeting

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Having also made the trip to New Orleans for the ACSM meeting this year, I have to once again thank Will Hopkins for his timely and concise review of the athletic performance studies presented at the meeting. As many studies as Hopkins manages to summarize in his reviews, it is scary to think that this category is a relatively small part of the total meeting menu. I have come to enjoy reading his annual post-ACSM summary to see what potentially interesting athletic performance studies I missed (OK, and to check whether something with my name on it got highlighted, or hammered). A few thoughts:

- I have to agree with Will that most of the posters present nothing new, so vigilance is required to spot the novel studies. Not sure what the solution is here. Students need projects and every project cannot be a ground-breaker. But, hopefully we as advisors do encourage creative thinking and filter the totally mundane from the ACSM meeting.
- Nutritional supplement studies reporting massive improvements in a primary measure like maximal force or power without offering a serious stab at a physiologically plausible mechanism are more exasperating than exciting, at least for those of us who like thinking about physiology more than statistics.
- The use of time to exhaustion (TTE) at constant load as an outcome measure in supplement and training studies remains popular, but personally I don't like the measure, (a) because the changes in TTE just do not give physiological meaning without conversion to a primary measure like power, and (b) because the literature suggests that this measure has lower reliability than a time trial. In response to (b), Hopkins argues that though there is more noise in this measurement, there is also a greater signal, so the sensitivity of TTE to a real change is as good or maybe better than other performance measures, after

appropriate transformation. I accept that argument now, but still wish we could just get the straight dope on power changes and drop all the conversions.

- The fine lectures by Priscilla Clarkson (Muscle Soreness: Cause, Consequence, and Cure) and Ron Maughan (Use of Legal Ergogenic Aids Through the "Gray Zone" onto Doping) both highlighted the very important issue that normal statistical treatment of group responses masks the often large individual differences in response/adaptation to a training or supplement regimen. Clarkson drove home the point with her case studies of rhabdomyolysis (massive muscle damage and pain) after eccentric exercise. Hospitalization and even death have resulted from hard strength-training workouts that would normally just have an untrained person groaning and walking down stairs backwards for two or three days. Maughan highlighted the same issue in terms of responders and non-responders to supplements like creatine. So, bottom line: performance studies should always report individual response data. Then we can argue the underlying physiology and genetics responsible for the variation.
- It sure would be nice to attend this meeting and see more studies of the long-term training process itself (and not just the effect of the latest pill, powder, or pulsating platform) and how the organization of those variables influences performance. Hard to do I know, but there would be nothing illegal about training smarter, if only we knew what that was.
- Finally, I must take exception with Dr. Hopkins on one point. New Orleans was not all that "quiet", at least not if you count Bourbon Street. Uh, or so I was told...

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