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| |  |  |  | | --- | --- | --- | | |  | | --- | | **ASEPNewsletter** | | | | |  |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | --- | | |  | | --- | | **In This Issue** | | [**Editor's Corner**](https://gweb1.css.edu/gw/webacc/e78928c6ae3cfcf5ad5840b6377ba3198df3af52/GWAP/HREF/?action=Attachment.View&Item.Attachment.id=1&User.context=e78928c6ae3cfcf5ad5840b6377ba3198df3af52&Item.drn=235281z5z0&Item.displayExternalImages=0#LETTER.BLOCK7) | | [**Ask the EP**](https://gweb1.css.edu/gw/webacc/e78928c6ae3cfcf5ad5840b6377ba3198df3af52/GWAP/HREF/?action=Attachment.View&Item.Attachment.id=1&User.context=e78928c6ae3cfcf5ad5840b6377ba3198df3af52&Item.drn=235281z5z0&Item.displayExternalImages=0#LETTER.BLOCK8) | | [**Ads & Employment**](https://gweb1.css.edu/gw/webacc/e78928c6ae3cfcf5ad5840b6377ba3198df3af52/GWAP/HREF/?action=Attachment.View&Item.Attachment.id=1&User.context=e78928c6ae3cfcf5ad5840b6377ba3198df3af52&Item.drn=235281z5z0&Item.displayExternalImages=0#LETTER.BLOCK9) |  |  | | --- | | **Quick Links** | | [**Journal of Exercise Physiology-online**](http://rs6.net/tn.jsp?et=1102743360931&s=2&e=001bQbUHpqC9FAI5m2sNUlcvjvO_lmQCeT0IeP2Ln2YaXLgQgTYzTCb-XdwANI-A7tOKAtPEu6FljnuLD4UzHy0zLlJV_k1FO1otouHJzjPm3GN0b_r5UJRmRW5L54gEKe8)    [**Professionalization of Exercise Physiology-online**](http://rs6.net/tn.jsp?et=1102743360931&s=2&e=001bQbUHpqC9FACHLnY1ko42ivbtfsngdnXpIFRx7yVfEHx8lmCshRRpIoj0w1RARYnwKv7CmNCnU7N9-1SRMTWsetfkElCsw7GUzXXaz0zGohQlluCS0xESBfabzRmzN65)    [**More On Us**](http://rs6.net/tn.jsp?et=1102743360931&s=2&e=001bQbUHpqC9FBXKFnq3PAo9Zqp3HJPSChPdzHLntm_DWtUE9Js0FSkNh3IY8dBTCEyHg-C1V7T_xRxf9dJvo5qmtB080qHt-9LdjKyEDcw0oY=)    [**PhDs can now petition for Board Certification**](http://rs6.net/tn.jsp?et=1102743360931&s=2&e=001bQbUHpqC9FB543XGJoPQue8K4HDyRlQaI0pQQaBDacszjBOblNmin5i9kAkWeusIhZ9glk8dDULwVjZez0AqYKaGOHO5ImXAZGVclHGHOe9UxlXIhIJ72EV-ABUy5I5RFkpHklcl2OK7AG11kBRSXg==) |  |  | | --- | | **Join Our List** | |  | | | |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | | |  |  |  | | --- | --- | --- | | **Issue: #10** | **October 2009** |  |  |  | | --- | | **Dear Exercise Physiologists,**  Thank you for being part of our community. **ASEP is the specific voice for (historically under-represented) Exercise Physiologists.** Please use this Newsletter as a link to ASEP resources from scientific journals to professional papers, to employment and related opportunities. And be sure to click on "More On Us" at the left for the ASEP-newsletter's parent web site.  Also, members please consider the [**ASEP Annual 2009 DUES Renewal Notice**](http://rs6.net/tn.jsp?et=1102743360931&s=2&e=001bQbUHpqC9FD65HiaFE-4J0LdK5o-PVq8LdXJFGkpWwF8UKD0nnsOLUr1oj2FywxQy17L8reWUfMIu5y-trdz1QzrHSg1HxcS6j3_sUTRl5oWrBlGBmzPpQ5ksIPRgBsIBOOcO5KXG4zluVFsWXM2XH0MJZj8FyNc) on the ASEP web site.  -Lonnie Lowery and Jonathan Mike, ASEP-Newsletter Editors |      |  |  | | --- | --- | | **Editor's Corner** |  | | **New ASEP President 2009-2010**  **Exercise Physiology: Death of a Profession?**  **Dale R. Wagner, PhD**  I teach in the Health, Physical Education, and Recreation (HPER) Department of a major university.  Within this department is an "exercise science" program that includes courses in both exercise physiology and biomechanics.  The department has seen a steady increase in enrollment over the past several years, and the vast majority of students in HPER are in the exercise science program.  Furthermore, the HPER Department has one of the largest enrollments of any department on campus.  In conversations with other university-based exercise physiology colleagues from around the country, there appears to be an increase of exercise science students in their departments as well.  Thus, on the surface, it would appear that exercise physiology is alive and well, and even thriving as a profession.  However, things are not always as they appear to be on the surface.  During the first day of class, I typically ask the students in my master's level exercise physiology course what their career goals are in order to get to know them better and to have a better understanding of what topics would be of most benefit and interest to them.  Many of them are athletic trainers and have career aspirations in this field, while others want to pursue careers as strength and conditioning coaches.  Many more plan on furthering their education by enrolling in physicians' assistant programs, physical therapy schools, or even medical schools.  It is extremely rare to hear a student say that he or she wants to pursue a career in exercise physiology.  This is not unique to the program and department where I teach.  Again, my colleagues from around the country corroborate that the same pattern exists in their programs.  This confirms something that I have observed since teaching exercise physiology courses at the university level for the past 10 years.  Most students perceive exercise physiology as just one step toward another career or profession rather than as the final destination.  Why?  Why not choose a career in exercise physiology?  The reasons are numerous: perceived lack of opportunities as an "exercise physiologist"; less status, recognition, and income than other professions; and the title "exercise physiologist" is not even well defined or recognized by those outside of the field.  These are all valid concerns.  Why not just take the knowledge gained from an exercise physiology degree and apply it to other professions that are more clearly defined with more job opportunities and better salaries?  And thus, a profession dies.  So, how can the profession of exercise physiology be saved?  The strategy and the solution are far more complex than can be outlined in this brief article.  It will take a concerted effort by all who consider themselves exercise physiologists to keep the profession alive and elevate it to the status that it deserves.  A step in the right direction is to become organized.  If you are not a member already, consider joining the American Society of Exercise Physiologists (ASEP), an organization dedicated to preserving the profession of exercise physiology.  I encourage all exercise physiologists (and students of exercise physiology) to attend the national meeting in spring 2010.  Details about the meeting will be forthcoming shortly and available on the ASEP web site ([www.asep.org](http://www.asep.org)). | |      |  |  | | --- | --- | | **Ask the EP** |  | | **Q:** Considering my interest in various training methods, is there a particular reason(s) **why we see little research and overall volume of periodization and its use to sports performance? Could there ever be an optimal program design for a specific group of people?**  Periodization is the hallmark of many strength and conditioning programs across the country. Although this concept is widely used and written about, presented on, and despite the fact that it appears to work based on practical observation, little is supported by research (Cissik). Cissik also notes the bulk of the research conducted is short term, uses non-athletic populations, and primarily **uses resistance training (i.e. machines), therefore, it becomes a challenge to apply the research to other populations, over many months to years, and utilizing various workout protocols.**  Now, why is this so? While many factors influence this shortcoming, it is often the individuals performing the research that lack adequate training and personal experience to ask reasonable and logical questions, thus have little to no understanding of how the laboratory work can be applied to the field of performance. Many great coaches and trainers are often puzzled by the reviews, editorials, commentaries, and other articles written by the scientific "experts", when in fact, research on periodization in the Western World is overall limited in scope. Unfortunately, there seems to be more reviews and interpretations that exist in an attempt to use periodization than there are data to support it.  Although it is an extremely valuable workout tool used in sports performance (I personally advocate its use), we have yet to answer some critical questions such as, **what is the appropriate model of periodization for an athlete or team and how does one (i.e. coach, trainer, student or even a professor) learn its actual application? In the majority of university exercise science related programs, periodization is a microscopic, underemphasized segment of the curriculum,** if ever mentioned at all.  Few courses exist that actual teach exercise programming beyond ACSM or NSCA guidelines. Moreover, many great texts on periodization do not instruct/coach the reader how to program.  Rhea (3) states the resistance training community has yet to reach an agreement on optimal program design for strength development, although concur some form of periodization is needed for increased strength improvements. While this is true, what is hardly mentioned or even considered is the **fact different doses of training volume (sets, reps, and weight) will result in different magnitudes of strength development and the amount of strength increase with different workout protocols changes as an individual becomes more highly trained.** In other words, volume, intensity, sets, reps, rest periods, exercises, frequency, etc have to change in order for one to make continual progress and strength improvements. So, how could there ever be an "optimal program design"? What about for novice, intermediate, advanced, or professional and elite athletes?  Siff (5) states that trying to achieve the **"optimal program design" creates the belief that periodization is an exact science in which training programs can be designed based on precise calculations of volume and intensity of every training session for the entire mesocycle is simply not valid.**  Some studies (1,3,4) attempt to equate volume so that both the intervention (i.e. periodization group) and the control group complete the same amount of work throughout the study. However reasonable this may sound, it's imperative to keep in mind **that the periodized protocol will probably yield greater results due to the higher volume performed by manipulating the volume and intensity. So, if volume is equated, wouldn't that offset the advantage of the periodized program?** Cissik (2) continues that equating the volume simply defeats the purpose if it takes the subjects out of the optimal rep range for a desired effect.  Although periodization is governed by theory, most aspects of research in the sports performance world are driven by other coaches and trainers via theory and/or team successes and coaching experience, which in the majority of cases, are often ahead of those in academia or working in the laboratory. We should all be aware that more research is needed. However, if periodization is used extensively in sports performance, and works for many and those advocating its use, do these things always have to be based on science?  Unfortunately, the mentality of "if research does not support it, it must not be true" stills lingers today. It's interesting that the world's most successful scientists, coaches, and trainers above and beyond exercise physiology and athletics have developed the philosophy of "observing it, and writing it down", thus have been at the forefront of science and application.  Perhaps more individuals should take this approach with respect to periodization, and other aspects of exercise physiology and athletic performance. After all, aren't we suppose to be "bridging the gap" between science and application.  References   1). Baker, D. Periodization: The effect on strength of manipulating volume and intensity. J Strength Cond Res. 1994 (8): 235-242.   2). Cissik, J. Challenges Applying the Research on Periodization. Strength and Conditioning Journal. 2008 February; 30 (1); 45-51.   3). Rhea, MR, Phillips WT, Burkett LN, Stone WJ, Ball SD, Alvar BA, Thomas AB. A comparison of linear and daily undulating periodized programs with equated volume and intensity for local muscular endurance. 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Denver, CO: Supertraining Institute, 2000.   Additional Reference:   Rippetoe, Mark, Kilgore, L.  Practical Programming for Strength Training. 2006  **Jonathan Mike,  MS, CSCS, USAW, NSCA-CPT,**  **Doctoral Student, Assistant Editor** | |      |  |  | | --- | --- | | **Advertisements** |  | | **Opportunities Related to Exercise Physiology**  **The Department of Kinesiology at the University of New Hampshire**... is currently seeking applicants for a tenure track appointment in Exercise Science at the Assistant or Associate Professor level. ...[**more information...**](http://rs6.net/tn.jsp?et=1102743360931&s=2&e=001bQbUHpqC9FBDtK_ib4R8xBeyq2toLK0yItnDkY8e_F-enGmnLLgbcu_7v0kwqxk2KGZjGBwroVWJiRrJBeYZWNSqd3o8oL7S0rZesHfNCtLX3LPinu7-Sg==)  **----------------------------------------------------**  **NOTE:** [**ASEP Board of Directors with approval of The Center for Exercise Physiology-online**](http://rs6.net/tn.jsp?et=1102743360931&s=2&e=001bQbUHpqC9FB543XGJoPQue8K4HDyRlQaI0pQQaBDacszjBOblNmin5i9kAkWeusIhZ9glk8dDULwVjZez0AqYKaGOHO5ImXAZGVclHGHOe9UxlXIhIJ72EV-ABUy5I5RFkpHklcl2OK7AG11kBRSXg==) **developed the "EPC Petition Guidelines" for doctorate exercise physiologists to become Board Certified.** | | | | |  | | --- | |  |  |  | | --- | | Thank you for perusing our opinions, facts and opportunities in this edition of the ASEP-Newsletter.  **Sincerely,**  Lonnie Lowery American Society of Exercise Physiologists | | | |
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