

**Mark G. Abel, Ph.D., C.S.C.S.**  
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## **Educational Background**

Ph.D.	2006	University of Utah, Salt Lake City, Utah Major: Exercise Physiology
M.S.	2001	University of Wisconsin-LaCrosse, LaCrosse, Wisconsin Major: Exercise and Sport Science – Human Performance
B.S.	1999	University of Wisconsin-LaCrosse, LaCrosse, Wisconsin Major: Exercise and Sport Science – Fitness Emphasis Concentration: Strength and Conditioning

## **Experience**

**University of Kentucky**  
Lexington, Kentucky  
(8/06 – Present)  
Position: Assistant Professor

**University of Utah**  
Salt Lake City, Utah  
(8/04 – 5/05)  
Position: Visiting Instructor

**University of Utah**  
Salt Lake City, Utah  
(8/02 – 5/04; 8/05 – 5/06)  
Position: Graduate Teaching Assistant, Fitness Assessment Clinician, & Phlebotomist

### **Academic Courses Taught: Undergraduate Level**

*Kinesiology* – (Instructor: 2003-2005) Qualitative analysis of human movements and discovery of underlying principles.

*Strength and Conditioning for Sports* – (Instructor 2006-2007) Students gain a basic understanding of the scientific basis for physiological and neurological adaptations that occur as a result of strength and endurance training. This course provides students with the background to develop unique strength and plyometric programs for athletes.

*Exercise Programming in the Community* – (Instructor: 2003-2004) Students gain knowledge of exercise programming and service-learning principles to stimulate behavioral change among older adults and youth within the community.

*Introduction to Exercise Testing and Prescription* – (Instructor: 2005-2007) This class prepares students to learn skills associated with screening clients for exercise participation, conducting basic fitness assessments, interpreting fitness test results, and constructing exercise prescriptions to meet clients' unique needs.

### **Academic Courses Taught: Graduate Level**

*Exercise Methods for Power Performance* – (Instructor: 2004-2006) This course provides students with a fundamental understanding of strength and conditioning principles for athletes. This class also prepares students for the National Strength and Conditioning Association's (NSCA) Strength & Conditioning Specialist (CSCS) Certification Exam.

*Advanced Exercise Physiology I: Laboratory* – (Instructor: 2003-2005) Presents first hand experience to the fundamentals of the acute human response to physical exercise. The lab includes assessment of the following: substrate utilization, body composition, anaerobic/aerobic performance, cardiovascular and respiratory responses to exercise.

*Advanced Exercise Physiology II: Laboratory* – (Instructor: 2003-2005) Students gain a variety of skills for assessing pulmonary, cardiovascular, and thermoregulatory function at rest and during exercise.

### **Publications**

\**Lead* (or first) author is designated as the first author and *Senior* author is designated as the final author listed on all manuscripts and abstracts.

### **Manuscripts in Review (Refereed Journals)**

Abel, M. G., Eisenman, P. A., Ransdell, L. B., Hannon, J., Pett, M. & Williams, D. P. (2007). The effect of pedometer angle on pedometer accuracy. *International Journal of Fitness*.

### **Manuscripts in Progress**

Abel, M. G., Eisenman, P. A., Ransdell, L. B., Hannon, J., Pett, M. & Williams, D. P. (In progress). The influence of waist circumference and pedometer placement on pedometer accuracy during treadmill and free-living walking conditions in youth.

Abel, M. G., Eisenman, P. A., Ransdell, L. B., Hannon, J., Pett, M. & Williams, D. P. (In progress). Reliability of pedometers in high and low waist circumference youth.

Abel, M. G. & Hannon, J. (In progress). Comparison of the Kenz Lifecorder EX, MTI Actigraph, and BioTrainer-Pro Accelerometers during treadmill ambulation.

**Abel, M. G.** & Hannon, J. (In progress). Comparison of the Kenz Lifecorder EX, MTI Actigraph, and BioTrainer-Pro Accelerometers during free-living conditions.

Long, D., **Abel, M.** & Clasey, J. (In progress). Physical activity and nutritional differences between home schooled versus public schooled children.

Erwin, H., Miller, A., **Abel, M.** & Beighle, A. (In progress). The influence of integrating kinesthetic learning experiences in elementary classrooms.

Pettitt, R., Amann, M., **Abel, M.** & Murray, S. (In progress). A simple approach to teach mechanical efficiency and oxygen uptake kinetics.

Pettitt, R., Symons, D., Amann, M., **Abel, M.** & White, A. (In progress). The VO<sub>2</sub> slow component is a function of exercise intensity, independent of economy, aerobic capacity, or anaerobic power.

**Abel, M. G.**, McBride, J., Maher, M., & Triplett-McBride, T. (2001). Effects of heavy resistance training on performance variables in endurance athletes. Unpublished master's thesis, University of Wisconsin-LaCrosse, LaCrosse, WI.

## **Presentations**

**Abel, M. G.**, Eisenman, P. A., Ransdell, L. B., Hannon, J., Pett, M. & Williams, D. P. (May 2007). Waist circumference and pedometer placement influence pedometer accuracy during a 400-m walk and stair ambulation in youth. Presented at: The American College of Sports Medicine – Annual Meeting. New Orleans, LA (poster presentation).

**Abel, M. G.** & Hannon, J. (February 2007). The effect of pedometer angle on pedometer accuracy. Presented at: The American College of Sports Medicine – Southeast Chapter Annual Meeting. Charlotte, NC (slide presentation).

**Abel, M. G.** (February 2007). Measurement of physical activity: A review. Presented at: The University of Kentucky, Department of Kinesiology and Health Promotion – KHP 781: Guest speaker, Lexington, KY (slide presentation).

**Abel, M. G.**, Eisenman, P. A., Ransdell, L. B., Hannon, J., Pett, M. & Williams, D. P. (September 2006). The effects of waist circumference, pedometer placement, and pedometer angle on pedometer accuracy in youth. Presented at: The University of Kentucky, Department of Kinesiology and Health Promotion - Graduate Seminar, Lexington, KY (slide presentation).

**Abel, M. G.**, Eisenman, P. A., Ransdell, L. B., Hannon, J., Pett, M. & Williams, D. P. (October 2005). Do waist circumference and pedometer placement influence pedometer accuracy? Presented at: Walking for Health: Measurement and Research Issues and Challenges, Urbana-Champaign, IL (poster presentation).

**Abel, M. G.** (July 2005). Physiological and psychological benefits of strength training. Presented to: Employees of ARUP Blood Services (slide presentation).

**Abel, M. G.** (September 2004). Scholarship appreciation speech: Graduate student representative. Presented at: The University of Utah-Scholarship Awards Banquet, Salt Lake City, UT.

**Abel, M. G. & Abel, J. A.** (April 2003). Children's barriers to physical activity: What are they and how can we overcome them? Presented at: American Alliance of Health, Physical Education, Recreation and Dance, State Meeting, Salt Lake City, UT (slide presentation).

**Abel, M. G. & Taylor, J.** (February 2003). Physical activity recommendations: Why the shift in focus: Fitness vs. health? Presented at: American Alliance of Health, Physical Education, Recreation and Dance, Regional Meeting, Reno, NV (slide presentation).

## Grants & Awards

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|----------------|--|
| December 2006  | The Effects of Leg-Length on Pedometer Accuracy ( <i>University of Kentucky - Summer Faculty Research Fellowship</i> ) \$6,000 requested.  |
| December 2006  | Comparison of Physical Activity Levels and Dietary Intake of Home Schooled vs. Public School Children. ( <i>University of Kentucky, College of Education Mini-Grant</i> ) PI – Dr. Jody Clasey, \$8,000 requested .  |
| December 2006  | Integrating Kinesthetic Learning Experiences in Elementary Classrooms. ( <i>University of Kentucky, College of Education Mini-Grant</i> ) PI – Dr. Heather Erwin, Funded \$8,000.  |
| October 2006   | Implementation of a Metabolic Instructional System in Exercise Science Courses. ( <i>University of Kentucky: Provost Equipment 2008-2010 Capital-Plan Grant Program</i> ) CoPI – Dr. Mark Abel. \$204,509 requested.   |
| September 2006 | Impact of Attitudes Towards Physical Activity, Perceived Access, and Physical Activity Preferences on Children's Physical Activity Levels ( <i>American Association for Health, Physical Education, Recreation, and Dance</i> ). CoPI – Dr. Mark Abel. \$15,000 requested. |
| October 2005   | Travel funding for presentation at ACSM's Walking for Health Conference at the University of Illinois, Champaign, IL ( <i>Associated Students of the University of Utah</i> ). \$600 funded.   |
| February 2004  | Implementation of carbon dioxide rebreathing hardware and software in exercise physiology laboratories ( <i>University of Utah: Individual Teaching Grants Program</i> ) CoPI – Dr. Mark Abel. \$3,000 funded.   |

- April 2004            The influence of waist circumference and pedometer placement of step counting accuracy in youth (*University of Utah: Dept. of Exercise & Sport Science Research Award*). \$500 funded.
- October 2003        Travel funding for presentation at Regional AAHPERD, Reno, NV (*Associated Students of the University of Utah*). \$600 funded.
- October 2000        The influence of heavy resistance training on performance variables in endurance athletes (*National Strength and Conditioning Association-Graduate Student Research Grant*) PI – Mark Abel. \$1,200 funded.

## Miscellaneous

- December 2006     Intellectual property proposal submitted to the University of Kentucky-Intellectual Property Development Office. Development of the intellectual property was supported.

## Reviewer

Journal of Applied Physiology, Nutrition, and Metabolism: 2006-2007

## Service

University of Kentucky: Lexington, Kentucky

- University Library Committee (2007)
- Department of Kinesiology and Health Promotion
  - o Member of the Exercise Science Ph.D. Program Curriculum Planning Committee (2006-present)
  - o Member of the Exercise Physiology Graduate Degree Curriculum Planning Committee (2006-present)
  - o HEEL Project Committee – Development of Exercise Screening Guidelines (2006-present)
- School of Medicine
  - o Activate Johnson School Project – Consultant (2006-present)
- Imani Baptist Church “Move to Improve” Initiative – Statistical Coordinator (2007)

American Alliance of Health, Physical Education, Recreation, and Dance: Salt Lake City, Utah  
National Meeting (2006): Equipment Manager

University of Utah: Salt Lake City, Utah

- College of Health: Appeals and Misconduct Committee (2002-2004)
- College of Health: Student Advisory Committee (2002-2004)
- Department of ESS: Retention, Promotion, & Tenure Committee (2003)
- Department of ESS: Graduate Assistant Orientation Coordinator (2003)
- Department of ESS: Performed blood lactate analyses on elite speed skaters (2003)

## **Scholarships**

University of Utah: Salt Lake City, Utah

- N.P. Neilson Scholarship Recipient (2003, 2004): \$1,200 funded.
- Educational Development Resource Committee Scholarship Recipient (2004): \$1,500 funded.

## **Certifications**

National Strength & Conditioning Association: Certified Strength & Conditioning Specialist

Certified Phlebotomist

Certified MedX Lumbar and Cervical Spine Specialist

CPR and Automated External Defibrillator

## **Professional Memberships**

Member of the American College of Sports Medicine (ACSM)

Member of the Southeast Chapter of the American College of Sports Medicine (SEACSM)