

DANIEL PAUL HEIL, Ph.D., FACSM

CURRICULUM VITA

CURRENT POSITION

- **Associate Professor, Exercise Physiology** (9/03-Present)
 - Dept. of Health and Human Development, Montana State University, Bozeman, MT.
 - Director, Human Performance / Movement Science Lab.
 - (9/99-5/03) Assistant Professor, Exercise Physiology, Montana State University.
- **Other Professional Positions:**
 - 2006-2007 Director, Northwest ACSM Annual Conference
 - 2003-2006 President, Northwest ACSM Chapter

EDUCATION

- **Doctor of Philosophy** (1997) - Dept. of Exercise Science, University of Massachusetts, Amherst, MA.
- **Master of Science** (1991), Dept. of Exercise and Sport Science, Oregon State University, Corvallis, OR.
- **Bachelor of Science** (1989), Dept. of Biology, Oregon State University, Corvallis, OR.

PUBLICATIONS

• Manuscripts (Original Research - Refereed)

In press

- Whitt-Glover, M.C., P.E. Hogan, W. Lang, **D.P. Heil**. Effect of a faith-based physical activity program among sedentary blacks: A pilot study. *Preventing Chronic Disease* (in press).
- Wolin, K.Y., **D.P. Heil**, S. Askew, G.G. Bennett. Validation of the International Physical Activity Questionnaire - Short Among Blacks. *Journal of Physical Activity and Health*
- Heil, D.P.**, G.G. Bennett, K.S. Bond, M.D. Webster, K.Y. Wolin. Can wrist- and ankle-worn monitors measure free-living physical activity?
- 2007 Lynch, W.C., **D.P. Heil**, E. Wagner, M. Havens. Ethnic differences in BMI, weight concerns, and eating behaviors: Comparison of Native American, White, and Hispanic Adolescents. *Body Image* 4:179-190.
- 2006 **Heil, D.P.** Predicting energy expenditure using the Actical activity monitor. *Research Quarterly in Exercise and Sport* 77(1):64-80.
- 2005 **Heil, D.P.** Body size as a determinant of the one-hour cycling record at sea level and altitude. *European Journal of Applied Physiology* 93(5-6):547-554.
- Miles, M.P., **D.P. Heil**, K.R. Larson, S.B. Conant, S.M. Schneider. Prior resistance training and sex influence muscle response to arm suspension. *Medicine and Science in Sports and Exercise* 37(11):1983-1989.
- 2004 **Heil, D.P.**, J. Engen, B.K. Higginson. Influence of Ski Pole Grip on Upper Body Power Output in Cross-country Skiers. *European Journal of Applied Physiology* 91(4):481-487.
- 2003 **Heil, D.P.**, B.K. Higginson, C.P. Keller, and C.A. Juergens. Prediction and classification of energy expenditure from CSA output during overground walking. *Journal of Exercise Physiology* 6(1):1-11.
- 2002 **Heil, D.P.** Body mass scaling of frontal area in competitive cyclists without aerobars. *European Journal of Applied Physiology* 87:520-528.
- Heil, D.P.** Estimating energy expenditure in wildland fire fighters using a physical activity monitor. *Journal of Applied Ergonomics* 33(5):405-413.
- Heil, D.P.**, and S.R. Mathis. Characterizing free-living light exposure as a function of work environment using a wrist-worn light monitor. *Journal of Applied Ergonomics* 33(4):357-363.
- 2001 **Heil, D.P.** Body mass scaling of projected frontal area in competitive cyclists. *European Journal of Applied Physiology* 85(3/4):358-366.
- Heil, D.P.**, O. Murphy, A.R. Mattingly, and B.K. Higginson. Prediction of uphill time-trial bicycling performance using a scaling-derived ergometer protocol. *European Journal of Applied Physiology* 85(3/4):374-382.
- 1999 Matthews, C.E., **D.P. Heil**, P.S. Freedson, and H. Pastides. Classification of cardiorespiratory fitness without exercise testing. *Medicine and Science in Sports and Exercise* 31(3):486-493.
- 1998 **Heil, D.P.** Body mass scaling of submaximal oxygen uptake during graded treadmill bicycling. *Journal of Applied Physiology* 85(4):1376-1383

- 1997 **Heil, D.P.** Body mass scaling of peak oxygen uptake in 20 to 79 year old adults. *Medicine and Science in Sports and Exercise* 29(12):1602-1608.
- Heil, D.P.**, T.R. Derrick, S. Whittlesey. The relationship between preferred and optimal positioning during submaximal cycle ergometry. *European Journal of Applied Physiology* 75:160-165.
- Heil, D.P.** The pressor response to submaximal cycle ergometry while using aerodynamic handlebars. *International Journal of Sports Medicine* 18(1):1-7.
- 1995 **Heil, D.P.**, A. Wilcox, and C. Quinn. The effect of seat-tube angle variation on cardiorespiratory responses during submaximal bicycling. *Medicine and Science in Sports and Exercise* 27(5):730-735.

Manuscripts In Review

- Heil, D.P.**, T.F. Manning, J.M. McKenzie. Pedometer longevity - How long will a pedometer maintain step counting accuracy?
- Alsobrook, N.G., **D.P. Heil**. Anaerobic and aerobic upper body power as determinants of classical cross-country ski performance.

• **Selected Abstracts (Original Research - Refereed)**

- 2007 **Heil, D.P.**, M.C. Whitt-Glover, P.H. Brubaker, Y. Mori. Influence of moderate intensity cut point on free-living physical activity outcome variables. *Med Sci Sports Exerc* 39(5):S185.
- Dock, M., S.M. Howe, K. Camenisch, **D.P. Heil**. Validation of a step counting algorithm for an accelerometry-based activity monitor. *Med Sci Sports Exerc* 39(5):S180.
- Howe, S.M., M. Dock, K. Camenisch, **D.P. Heil**. Reliability of accelerometry-based activity monitor output during treadmill walking. *Med Sci Sports Exerc* 39(5):S181.
- Rowe, D.A., G. Welk, **D.P. Heil**, M.T. Mahar, C.D. Kenble, M.A. Calabro, K. Camenish. Influence of height and stride length on estimation of walking intensity from stepping rate. *Med Sci Sports Exerc* 39(5):S183.
- Manning, J.M., H. Finkernagel, U. Finkernagel, G. Schmidt, **D. Heil**, D. Svolos, F. Bellina, D. Van Allen, P. Mahady. Core body temperatures of ultra runners during a 217 km run in extreme heat. *Med Sci Sports Exerc* 39(5):(abstract in press).
- Laskin, J.J., M. Blair, S. Ostertag, A. Elias, **D.P. Heil**. Estimation of energy expenditure using accelerometry in individuals with locomotor dysfunction: Do current algorithms work? *Med Sci Sports Exerc* 39(5):S435.
- 2006 **Heil, D.P.**, P.E. Hogan, M.C. Whitt-Glover. The influence of bout duration on agreement between accelerometry data and self-report physical activity. *Med Sci Sports Exerc* 38(5):(S560).
- Whitt-Glover, M.C., P.E. Hogan, **D.P. Heil**. The effect of a church-based program on physical activity levels among sedentary African Americans. *Med Sci Sports Exerc* 38(5):(S5).
- Ruby, B.C., A. Reinert, S.J. Montain, **D.P. Heil**. Measurements of water turnover during the Ironman Triathlon. *Med Sci Sports Exerc* 38(5):(S217).
- 2005 **Heil, D.P.** A mathematical model of the 2004 Tour de France l'Alpe-d'Huez time-trial winning performance. *Med Sci Sports Exerc* 37(5):(S105).
- McKenzie, J.M., T.F. Manning, C.A. Juergens, **D.P. Heil**. A lab-based test to evaluate pedometer longevity. *Med Sci Sports Exerc* 37(5):(S117).
- Moss, A., C.A. Juergens, J.M. McKenzie, B.C. Ruby, **D.P. Heil**. Predicting projected frontal area of cycling in women competing at the 2004 Hawaiian Ironman Triathlon. *Med Sci Sports Exerc* 37(5):(S105).
- 2004 **Heil, D.P.**, B.C. Ruby, S.E. Gaskill, D.E. Lankford, B.J. Sharkey. Prediction of energy expenditure during simulated wildland fire suppression task. *Med Sci Sports Exerc* 36(5):S219.
- Ruby, B.C., S.E. Gaskill, **D.P. Heil**, S. Harger, B.J. Sharkey. Liquid and solid carbohydrate feedings increase self-selected work rates during arduous wildfire suppression. *Med Sci Sports Exerc* 36(5):S219.
- Zderic, T.W., B.C. Ruby, **D.P. Heil**, M.T. Hamilton. Postprandial hypertriglyceridemia and suppression of muscle lipoprotein lipase activity by one day of physical inactivity in humans. Poster presentation at the annual APS meeting.
- 2003 Higginson, B.K., **D.P. Heil**, J. Engen. Influence of ski pole grip systems on upper body power output in nordic skiers. *Med Sci Sports Exerc* 35(5):S363.
- Setula, C., **D.P. Heil**, N.J. Klippel. Comparison of three concomitant measures of power output on a modified cycle ergometer. *Med Sci Sports Exerc* 35(5):S275.

- Ruby, B.C., S.E. Gaskill, D.E. Lankford, D. Slivka, **D.P. Heil**. Self-selected work rates are significantly reduced during arduous wildfire suppression without liquid CHO ingestion. *Med Sci Sports Exerc* 35(5):S210.
- Lankford, D.E., S.E. Gaskill, B.C. Ruby, **D.P. Heil**, B.J. Sharkey. Influence of submaximal VO₂ at Ventilatory threshold on self-selected work rate during wildland firefighting. *Med Sci Sports Exerc* 35(5):S210
- Gaskill, S.E., B.C. Ruby, **D.P. Heil**, B.J. Sharkey. Seasonal changes in wildland firefighter aerobic fitness. *Med Sci Sports Exerc* 35(5):S131.

• **Invited Presentations or Symposia (Non-Refereed)**

- 2007 **Heil, D.P.** *Best-Practice Recommendations for the Collection and Processing of Free-Living Physical Activity Monitor Data*. Dept of Kinesiology, Louisiana State University (Baton Rouge, LA).
- Heil, D.P.** *Optimal Cycling Position: A Review of the Scientific Literature*. The Science of Cycling Symposium and Expo (Boulder, CO).
- Heil, D.P.** The Art & Science of Choosing the Best Pedometer. The Health & Physical Education Council (HPEC) of Alberta (Edmonton, Alberta, Canada).
- 2006 **Heil, D.P.**, J. Downing. *Testing of Elite and Master Athletes*. NWACSM Annual Conference presentation at Oregon State University (Corvallis,OR).
- Heil, D.P.** *Determination of Body Position for Optimizing Time Trial Cycling Performance: An Integration of Physiology and Physics*. Presented at 2006 National ACSM Conference (Denver, CO) in symposium titled *The Science of Cycling: Transforming Research into Practical Applications for Athletes and Coaches*.
- 2005 **Heil, D.P.** *Limits of Human Performance During Time-Trial Bicycling: From l'Alpe d'Huez to the Hawaiian Ironman Triathlon*. NWACSM Annual Conference at the University of Idaho (Moscow, ID).
- 2004 **Heil, D.P.** *An Introduction to Exercise Prescription: A Guide to Frequently Asked Patient Questions*. Given to medical physicians at Bozeman Deaconess Hospital as part of their weekly lecture series (Bozeman, MT).
- 2003 **Heil, D.P.** *High-Tech Gadgets for Measuring Energy Expenditure*. NWACSM Annual Conference at the University of Montana (Missoula, MT).
- 2002 **Heil, D.P.** *Influence of Ski Pole Grip Systems on Upper Body Power Output in Cross-Country Skiers*. Two separate presentations given to Team Rossignol (a professional cross-country ski team) and Team Yoko/Toko at the West Yellowstone Thanksgiving Training Camp.
- 1998 **Heil, D.P.** The Future Utility of VO_{2MAX} Regression Models. Part of mini-symposium titled *VO_{2MAX} Estimation From Exercise and Non-Exercise Regression Models*. 1998 National ACSM Conference (Orlando, FL).

AWARDS/HONORS

- (2005) ACSM Abstract presentation titled "*A Mathematical Model of the 2004 Tour de France l'Alpe-d'Huez Time-Trial Winning Performance*" was selected by ACSM Abstract Review Committee as one of the top 15 abstracts of the conference (approximately 2,478 were presented) to be highlighted to conference attendees and the Press.
- (2001) Elected to *Fellow* status by the national organization of the American College of Sports Medicine (ACSM).
- (1998) Elected to *Fellow* status in the Research Consortium, an organization within the national American Alliance for Health, Physical Education, Recreation, and Dance (AAHPERD).