



## Actiheart Bibliography

The bibliography contains references for published papers and abstracts from scientific journals which the use of the Actiheart monitoring system has been reported.

### 2010

**Assah, F.K., Ekelund, U., Brage, S., Wright, A., Mbanya, J.C. & Wareham, N.J. (2010).** Accuracy of a combined heart rate and motion sensor for the measurement of free-living physical activity energy expenditure in adults in Cameroon. *International Journal of Epidemiology in press.*

**Brage, S., Assah, F., Pomeroy, J., Mbanya, J-C., Knowler, W., Franks, P., Ekelund, N. & Vague, P. (2010).** Self-Paced Walking Test as Alternative to Step Test for Field Calibration of Heart Rate to Energy Expenditure. A poster presented at the Third International Congress on Physical Activity and Public Health, Toronto, Canada, 2-5<sup>th</sup> June.

**Bray, M.D., Pomeroy, J., Brage, S., Knowler, W.C., Franks, P.W., Luick, B., Hopkins, S. & Vague, P. (2010).** Accuracy of Actiheart Monitors in Determining Free-Living Energy Expenditure in Yup'ik Eskimos. A poster presented at the Third International Congress on Physical Activity and Public Health, Toronto, Canada, 2-5<sup>th</sup> June.

**De Hollander, E., Wendel-Vos, W. & Schuit, J. (2010).** Estimates of Physical Activity Guidelines for the Netherlands: Valid or Not? A poster presented at the Third International Congress on Physical Activity and Public Health, Toronto, Canada, 2-5<sup>th</sup> June.

**Kerr, J., Raab, F., Ramirez, E., Norman, G. & Patrick, K. (2010).** Integrating Multiple Sensors for the Assessment of Physical Activity in Time and Space. A poster presented at the Third International Congress on Physical Activity and Public Health, Toronto, Canada, 2-5<sup>th</sup> June.

**Ridgway, C., van Sluijs, E., Goodyer, I., Halla, P. & Ekelund, U. (2010).** Does Birth Weight Predict Physical Activity in Youth? A Meta-Analysis. A poster presented at the Third International Congress on Physical Activity and Public Health, Toronto, Canada, 2-5<sup>th</sup> June.

**Thompson, D., Markovitch, D., Betts, J.A., Mazzatti, D., Turner, J. & Tyrrell, R.M. (2010)** [Changes in inflammatory markers during a 6-mo exercise intervention in sedentary middle-aged adults: a controlled trial.](#) *Journal of Applied Physiology* 108, pp. 769-779.

### 2009

**Arvidsson, D. (2009).** [Physical activity and energy expenditure in clinical settings using multiple accelerometers.](#) *Institute of Medicine, Sahlgrenska Academy at the University of Gothenburg.*

**Barreira, T., Kang, M., Caputo, J., Farley, S. & Renfrow, M. (2009).** Validation of the Actiheart for the Measurement of Physical Activity. *International Journal of Exercise Science* 2(1), pp. 60-71.

**Bock, S., Steel, C., McLure, S., Moore, H., Cooley, D., Batterham, A. (2009).** Deriving an Accelerometer Cut-Point for Free-Living Physical Activity In Children: An Exploratory Study. *Abstracts of the 12th International Conference on Physical Activity and Public Health, Toronto, Canada, 2-5<sup>th</sup> June.*

56<sup>th</sup> Annual Meeting of the American College of Sports Medicine.

**Dixon, N.C., Hurst, T.L., Talbot, D.C.S., Tyrell, R.M. & Thompson, D. (2009)** [Active middle-lower fasting inflammatory markers but the postprandial inflammatory response is minimal and u activity status.](#) *Journal of Applied Physiology* 107, pp. 63-68

**Finucane, F. (2009).** [Obesity in Irish Youth: Epidemiology and Implications.](#) *Irish Journal of Me*

**Ntoumanis, N. & Standage, M. (2009).** [Motivation in physical education classes: A self-determ perspectiv.e](#) *Theory and Research in Education* 7(2), pp. 194-202.

**Reichert, F.F., Menezes, A.M., Kingdom Wells, J.C., Ekelund, E., Rodrigues, F.M. & Hallal** methodological model for collecting high-quality data on physical activity in developing settings – the 1993 Pelotas (Brazil) Birth Cohort Study. *Journal of Physical Activity and Health* 6(3), pp. 386

**Steel, C., McLure, S., Moore, H., Cooley, D., Bock, S., & Batterham, A. (2009)** Dissecting F Behaviours in Children Using Objective Measures with Individual Calibration: An Exploratory Stud to the 56<sup>th</sup> Annual Meeting of the American College of Sports Medicine.

**Takken, T. et al. (2009)** Calibration of the Actiheart accelerometer for the prediction of activity in children with chronic disease. Abstract presented to the [25<sup>th</sup> international symposium of Paedi Physiology.](#)

**Thompson, D., Batterham, A., Markovitch, D., Dixon, N., Lund, A. & Walhin, JP. (2009)** ( in Assessing the Physical Activity Status of Middle-aged Men. *PLoS ONE* 4(2): e4337.

## 2008

**Crouter, S., Churilla, J., & Basset, D. (2008).** Accuracy of the Actiheart for the assessment of in adults. *European Journal of Clinical Nutrition* 62, pp. 704-711.

**Despres, J. & Marzo, V. (2008).** Abdominal Obesity and the Endocannabinoid System: From B Clinical Management of Related Cardiometabolic Risk. *Informa Health Care Publications, USA.*

**Ivarsson, M., Anderson, M., Akerstedt, T. & Lindblad, F. (2008).** Playing a violent television rate variability. *Acta Paediatrica* 98(1), pp. 166-172.

**Markovitch, D., Tyrell, R.M. & Thompson, D. (2008)** [Acute moderate-intensity exercise in m neither an anti- nor proinflammatory effect.](#) *Journal of Applied Physiology* 105, pp. 260-265.

**Smith, L., Brown, L. & Van Blerk C. (2008).** Reliability of Several Physical Activity Instrument Activity in School Children aged 11-12 years. Abstract presented to the *British Association of Spc Science Annual Meeting.*

**Standage, M., Sebire, S. J. & Loney, T. (2008).** [Does Exercise motivation Predict Engagemen Assessed Bouts of Moderate-Intensity Exercise?: A Self-Determination Theory Perspective.](#) *Journ. Psychology* 30, pp. 337-352.

**Tryon, W. (2008).** [Methods of measuring human activity](#) *Journal of Behavior Analysis in Health, Medicine* 1(1), p. 68.

**Zakeri, B., Adolph, A., Puyau, M., Vohra, F. & Butte, N. (2008).** Application of cross section modelling for the prediction of energy expenditure from heart rate & accelerometry. *Journal of Ap* 104, pp. 1665-1673.

## 2007

- Andre, D. & Wolf, D.L. (2007).** Recent Advances in Free-Living Physical Activity Monitoring: A *Diabetes Science and Technology* 1(5), pp. 760-767.
- Bettle, J., Kang, M., Caputo, J., Farley, R., Renfrow, M. & Barreira, T. (2007).** Evidence for the Actiheart Monitor in a Free Living Setting. *Abstract presented at the 54<sup>th</sup> Annual Meeting of the American College of Sports Medicine.*
- Brage, S., Ekelund, U., Brage, N., Hennings, M., Froberg, K., Franks, P. & Wareham, N. (2007).** Individual calibration levels for heart rate and accelerometry to measure physical activity. *Journal of Physiology* 103, pp. 682-692.
- Burns, N., Finucane, F., Hatunic, M., Gilman, M., Murphy, M., Gasparro, D., Mari, A., Gastaldello, G. & J. (2007).** Early-onset type 2 diabetes in obese white subjects is characterised by a marked defect in insulin secretion, severe insulin resistance and a lack of response to aerobic exercise training. *Journal of Internal Medicine* 262, pp. 1362-1364.
- Chen, J., Kuo, B. & Chiang, C. (2007).** The development of wireless electrocardiography for biometric authentication. *Institute of Brain Science of National Yang Ming University.*
- Chen, K., Rothney, M. & Brychta, R. (2007.)** Physical activity monitors: Do more sensors mean more accuracy? *Journal of Diabetes Science & Technology* 1(5), pp. 768-770.
- Corder, K., Brage, S. & Ekelund, U. (2007).** [Accelerometers and pedometers: methodology and applications](#). *Clinical Nutrition and Metabolic Care* 10(5), pp. 597-603.
- Doyle-Baker, P. & Venner, A. (2007).** Validation of the Actiheart Monitor for combined heart rate and accelerometer monitoring in overweight, obese & athlete child populations. *University of Calgary Department of Kinesiology.*
- Galvani, C., Andreletti, L., DeMarie, S., Mondoni, M. & Faina, M. (2007).** Importance of the calibration to estimate energy expenditure during field activities. *12<sup>th</sup> Annual Congress of the European College of Sport Science 11-14<sup>th</sup> July.*
- Hagins, M., Moore, W. & Rundle, A. (2007).** Does practicing hatha yoga satisfy recommended physical activity which improves and maintains health and cardiovascular fitness? *BMC Complementary and Alternative Medicine* 7(40).
- Hagstromer, M. (2007).** [Assessment of Health-Enhancing Physical Activity at Population Level](#). *Stockholm, Sweden.*
- Kang, M., Caputo, J., Farley, R., Barreira, T., Bettle, J. & Renfrow M. (2007).** Validation of the Actiheart Monitor in the Laboratory Setting. *Abstract presented at the 54<sup>th</sup> Annual Meeting of the American College of Sports Medicine.*
- Krueger, A. (2007).** Validating the American Time Use Survey: Does anybody really know what they are doing yesterday? *University of Princeton presentation.*
- Parish, L., Rudisill, M. & St. Onge, P. (2007).** Mastery Motivational Climate: Influence on Physical Activity Rate in African American Toddlers. *Research Quarterly for Exercise and Sport* 78(3), pp. 171-176.
- Rowlands, A. & Eston, R. (2007).** The measurement and interpretation of children's physical activity. *Sports Science and Medicine* 6, pp. 270-276.
- Troust, S. (2007).** [Measurement of physical activity in children and adolescents](#) *American Journal of Preventive Medicine* 1(4).
- Venner, A. A. & Doyle-Baker, P. K. (2007).** Monitoring Paediatric high intensity exercise: Actiheart Monitor. *International Conference of Physical Activity and Obesity in Children, p. 64, Abs 114.*

## 2006

**Gogenur, I., Munch-Peterson, H., Kucukakin, B., Wildschiodtz, G. & Rosenberg, J. (2006)** combined actigraphy and heart rate variability monitor for determining sleep and wake in adult s presented to the *Cardiovascular System in Marburg, Apr. 6-8. Abstract published in Somnologie* .

**Mukherjee, S., Aarts, E., Roover, R., Widdershoven, F. & Ouwerkerk, M. (2006)**. Amlware technology drivers of ambient intelligence. *Springer Publications, US*.

**Thompson, D., Batterham, A., Bock, S., Robson, C. & Stokes, K. (2006)**. Assessment of Low Intensity Physical Activity Thermogenesis in Young Adults Using Synchronized Heart Rate and Accelerometry. *The Journal of Nutrition* 136, pp. 1037-1042.

**Wynne, K., Park, A., Small, C., Meeran, K., Ghatei, M., Frost, G. & Bloom, S. (2006)**. Oxygen energy expenditure in addition to decreasing energy intake in overweight and obese humans: a randomized trial. *International Journal of Obesity* 30, pp. 1729-1736.

## 2005

**Batterham, A., Bock, S., Robson, C., Stokes, K. & Thompson, D. (2005)**. Development of Calibration Equations for a single piece Heart Rate & Accelerometry Instrument. *Abstract presented at the 52<sup>nd</sup> Annual Meeting of the American College of Sports Medicine*.

**Brage, S., Brage, N., Ekelund, U., Franks, P., Froberg, K. & Wareham, N. (2005)**. Cross validation of prediction equations for treadmill walking and running: The combined heart rate and motion sensor. *Abstract presented by the MRC Epidemiology unit Cambridge et al.*

**Brage, S., Brage, N., Ekelund, U., Luan, J., Franks, P., Froberg, K. & Wareham, N. (2005)** movement and heart rate monitor placement on physical activity estimates during treadmill locomotion. *European Journal of Applied Physiology* 96, pp. 517-524.

**Brage, S., Brage, N., Franks, P., Ekelund, U., & Wareham, N. (2005)**. Reliability and validity of heart rate and movement sensor Actiheart. *European Journal of Clinical Nutrition* 59, pp. 561-571.

**Corder, K., Brage, S., Wareham, N. & Ekelund, U. (2005)**. Comparison of PAEE from Combined Heart Rate and Movement Models in Children. *Medicine and Science in Sports and Exercise* 37(10)

**Southwell, K., Bekhit, N., Yiallourou, S., Verginis, N., Davey, M. & Horne, R. (2005)**. Validation of Actigraphy Monitor for Determining Sleep & Wake in Children. *Abstract submitted to the 18<sup>th</sup> Annual Meeting of the Australasian Sleep Association. Surfers Paradise, 7-9 October*.

**Stokes, K., Batterham, A., Bock, S., Robson, C. & Thompson, D. (2005)**. Assessment of Energy Expenditure Using Synchronised Accelerometry and Heart Rate. *Abstract presented at the 52<sup>nd</sup> Annual Meeting of the American College of Sports Medicine June 1-4<sup>th</sup>*.

**Thompson, D., Batterham, A., Bock, S., Robson, C. & Stokes, K. (2005)** Assessment of energy expenditure during physical activity using synchronised accelerometry and heart rate. *Abstract presented at the Meeting of the American College of Sports Medicine June 1-4<sup>th</sup> 2005*

## 2004

**Brage, S., Brage, N., Franks, P., Ekelund, U., Wong, M., Anderson, L., Froberg, K. & Wareham, N. (2004)** Branched equation modelling of simultaneous accelerometry and heart rate monitoring improves measured physical activity energy expenditure. *Journal of Applied Physiology* 96, pp. 343-351.

## Ongoing Projects

These are ongoing projects where some part of the investigation is making use of Actiheart to measure the outcome directly or support an intervention with greater control.

**Coe, C., Essex, M., Goldsmith, H., Pollak, S., Haggerty, K., Skinner, M., Vitacco, M., Maxl, J.** [Projects, UNO Based Projects: Sensation Seeking and A Real World Stressor: Hormonal and Auto](#)

**Gold, C.** [Effects of Music Therapy for Prison inmates: a pilot study, ISRCTN22518605](#)

**Medical Research Council Epidemiology Unit** [Investigating the Causes and Prevention of Diabetes in Cameroon Study](#)

**Butte, N.** [Prediction of Energy Expenditure/Physical Activity In Children and Adolescents](#) *National Institute of Diabetes And Digestive And Kidney Diseases*

**Casey, C.** [Physiologic Responses to Simulated Care Activities in Older Surgical Patients](#) *National Institute of Health Research*

**Gaesser, G.** [A Wireless, Multimode, Artificial Neural Network-Based Physical Activity Monitor](#) *National Institute of Health and Blood Institute*

**Hagins, M., Pappas, E., Spierer, D., Rundle, A.** [Measurement of Physical Activity using Accelerometers](#) *Wellness Institute, Long Island University*

**Tanjarsiri, S.** [Creating the Pacific Islander Physical Activity Questionnaire \(PIPAQ\)](#) *National Cancer Institute*

**Crespo, C.** [Measurement of Physical Activity in Older Adults: Comparison of Heart Rate and Accelerometers](#) *Health & Science University*

**Raffaelli, C.** [Analysis of the energy expenditure of water based activities and of their effects on body composition after training](#) *Faculty of Exercise and Sports Science, University of Verona*

**Goodper, I., Jones, P., Herbert, J., Croudace, T.** [The Roots Study Project \(adolescent life\)](#) *Wellness Institute*

**Inskip, H. et al.** [Southampton Women's Survey](#), *Medical Research Council Epidemiology Resource Centre*