



BODYMEDIA Armband

Validations, Publications, Papers – March 2007

SENSEWEAR PERSONAL ENERGY EXPENDITURE MEASUREMENTS FOR PROTRACTED, REPETITIVE, UPPER-EXTREMITY TASKS WITH AND WITHOUT PROCESS AUTOMATION.

Colombi, A.M., Vishnubahtha, S., Adams, K.J., Tollerud, D.J., Peele, P.B.

Publication: SYMPOSIUM "ERGONOMICS IN ACTION"

Presented at the 27th International Congress on Occupational Health

Iguassu Falls, Brazil February 2003

AMERICA'S OBESITY EPIDEMIC: MEASURING PHYSICAL ACTIVITY TO PROMOTE AN ACTIVE LIFESTYLE

Keim, N.L., Blanton, C.A., Kretsch, M.J.

US Department of Agriculture, Agricultural Research Service, Western Human Nutrition Research Center, Davis, CA and US Department of Agriculture, Agricultural Research Service, National Program Staff, Beltsville, MD.

Publication: Journal of the American Dietetic Association.

J Am Diet Assoc. 2004;104 (9):1398-1409.

EVALUATION OF THE SENSEWEAR PRO ARMBAND TO ASSESS ENERGY EXPENDITURE DURING EXERCISE

Jakicic, J.M., Marcus, M., Gallagher, K.I., Randall, C., Thomas, E., Goss, F.L., Robertson, R.J.

Physical Activity and Weight Management Research Center, Department of Psychiatry, and Center for Exercise and Health-Fitness Research (University of Pittsburgh, PA)

Publication: Medicine & Science in Sports and Exercise

Med Sci Sports Exerc. 2004; 36(5): 897-904

VALIDITY OF A MULTI-SENSOR ARMBAND IN ESTIMATING REST AND EXERCISE ENERGY EXPENDITURE

Fruin, M.L., Rankin, J.W.

Department of Human Nutrition, Foods, and Exercise, Virginia Tech (Blacksburg, VA)

Publication: Medicine & Science in Sports and Exercise

Med. Sci. Sports Exerc. 2004; 36, (6), 1063-1069.

VALIDATION OF A WEARABLE BODY MONITORING DEVICE IN COPD

Patel, S.A., Slivka, W.A., Sciruba, F.C.

Department of Pulmonary Function and Exercise Physiology, University of Pittsburgh (Pittsburgh, PA)

Publication: American Journal of Respiratory and Critical Care Medicine (Abstract presented at ATS meeting May 2004)

Am J Respir Crit Care Med. 2004; 30:A771



MEASURING ENERGY EXPENDITURE IN CARDIAC PATIENTS USING THE BODYMEDIA® ARMBAND VERSUS INDIRECT CALORIMETRY. A VALIDATION STUDY.

LeMura, L.M., Cole, P.J, Klingler, T.A, Strohecker, K., McConnell, T.R

Exercise Physiology Laboratory, Bloomsburg University of PA, Bloomsburg, PA, USA

**Publication: Journal of Sports Medicine and Physical Fitness
J Sports Med Phys Fitness 2004; 44(3), 262-271**

COMPARISON OF ACTIVITY MONITORS TO ESTIMATE ENERGY EXPENDITURE OF TREADMILL EXERCISE

King, G.A, Torres, N., Potter, C. Brooks, T.J, Coleman, K.J,

College of Health Sciences, Kinesiology Department, University of Texas at El Paso (El Paso, TX)

**Publication: Medicine & Science in Sports and Exercise
Med.Sci.Sport Exerc. 2004; 36(7), 1244–1251.**

EVALUATION OF THE PORTABLE HEALTHWEAR ARMBAND – A DEVICE TO MEASURE TOTAL DAILY ENERGY EXPENDITURE IN FREE-LIVING TYPE 2 DIABETIC INDIVIDUALS

Mignault, D., St.Onge, M., Karelis, A.D., Allison, D.B., Rabasa Lhoret, R.

Département de Nutrition, Unité Métabolique, Université de Montréal, Montreal, Quebec, Canada

Publication: Diabetes Care 2005;28(1), 225-227

RELATIONSHIP BETWEEN ACTIVE AND TOTAL ENERGY EXPENDITURE IN SINDEHAM CHOREA: A CLINICAL CASE.

Perini, M. Fiocchi, A*.,Bollini, F., Lanfranchi, S., Zarcone, D.

U.O. Neurologia, Ospedale S. Antonio Abate Gallarate

*U.O. Pediatria, Ospedale Macedonio Melloni Milano

Publication: Abstract presented at the Italian Association of Clinical Neurology - Grado May 2005

A VALIDATION STUDY OF A CONTINUOUS BODY-MONITORING DEVICE: ASSESSING ENERGY EXPENDITURE AT REST AND DURING EXERCISE

Wadsworth,D.D., Howard, T*.,Hallam, J.S., Blunt,G.

University of Mississippi, University, MS

*Mississippi Valley State University, Itta Bena,

Publication: Abstract presented at the Annual Meeting of the American College of Sports Medicine 2005, Nashville, TN. USA

REVIEW/UPDATE: EVALUATION OF THE SENSEWEAR PRO ARMBAND TO ASSESS ENERGY EXPENDITURE DURING EXERCISE

Pierpaolo de Feo, MD – Chiara Di Loreto, MD

Department of Internal Medicine, Section of Internal Medicine, Endocrine and Metabolic Sciences, University of Perugia, Perugia, Italy.

Publication: Diabete in Movimento (Diabetes in movement), Italy, 2005; 5, (4),



EMERGING CONCEPTS IN OUTCOME ASSESSMENT IN COPD CLINICAL TRIALS

Patel, S.A Scirba, F.C

Division of Pulmonary, Allergy, and Critical Care Medicine, University of Pittsburgh, PA, USA

**Publication : Seminars in Respiratory and Critical Care Medicine, volume 26, number 2, 2005
-253-262**

**A NEW DEVICE FOR MEASURING DAILY TOTAL ENERGY EXPENDITURE (TEE) IN
FREE LIVING INDIVIDUALS**

Malavolti,M.¹, Pietrobelli,A.^{1,2},Dugoni,M.¹, Poli,M.¹, De Cristofaro,P.³. Battistini,N.C..

¹Applied Dietetic Technical Sciences Chair, Modena and Reggio Emilia University, Pediatric Unit,
²Verona University Medical School, Verona and ³Centro Regionale di Fisiopatologia della Nutrizione ASL
Teramo (ITALY).

Publication: International Journal of Body Composition Research, 2005; 3:63

**TOTAL ENERGY EXPENDITURE IN MORBIDLY OBESE SUBJECTS: A NEW DEVICE
VALIDATION.**

De Cristofaro,P.¹, Pietrobelli,P.^{2,3}, Dragani,B.¹, Malatesta,G.¹, Arzeni,S.¹, Luciani,M.¹,
Malavolti,M.³, Battistini,N.C.³

Centro Regionale di Fisiopatologia della Nutrizione ASL Teramo (ITALY)¹, Pediatric Unit, Verona
University Medical School, Verona (ITALY)², and Human Nutrition Chair, Modena and Reggio Emilia
University (ITALY)³.

Publication: Obesity Research 2005; 13:A175

**DIETARY PROTEIN AND EXERCISE HAVE ADDITIVE EFFECTS ON BODY
COMPOSITION DURING WEIGHT LOSS IN ADULT WOMEN**

Layman,D.K.*†, Evans,E.†** Baum,J.I† Seyler,J.†, Erickson,D.J.* Boileau,R.A.**

*Department of Food Science and Human Nutrition; †Division of Nutritional Sciences;
and **Department of Kinesiology, University of Illinois, Urbana, IL 6180

**Publication: American Journal of Nutrition
J. Nutr. 2005; 135 (8):1903-1910.**

**QUANTIFYING PHYSICAL ACTIVITY IN DAILY LIFE WITH QUESTIONNAIRES AND
MOTION SENSORS IN COPD**

Pitta,F.*,#, Troosters,T.*,#, Probst,V.S.*,#, Spruit,M.A.*,#, Decramer,M.*,# Gosselink,R.*,#

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#Faculty of Kinesiology and Rehabilitation Sciences, Katholieke Universiteit Leuven, Leuven, Belgium.
"Dept of Physiotherapy, Universidade Estadual de Londrina, Londrina, Brazil.

Publication : Eur Respir J 2006; 27:1040-1055

**CORRELATES OF ENERGY EXPENDITURE AND SEDENTARY LIFE IN FREE-LIVING
COPD**

BattagliaS., Martino,L., Spatafora M., Bellia,V.

Istituto di Medicina Generale e Pneumologia, Università di Palermo, Palermo, Italy.

**Publication: Presented at the American Thoracic Society Annual Meeting, May 2006 [Publication
Page: A209] - Thematic Poster Session, [A139]**



VALIDATION OF SENSEWEAR® ARMBAND TO ASSESS ENERGY EXPENDITURE IN CHILDREN RANGING IN BODY SIZE

Andreacci, J.L. 1, Dixon, C.B. 2, McConnell, T.R. 1.

1Bloomberg University, Bloomberg, PA. 2Lock Haven University, Lock Haven, PA.

Publication: Presented at ACSM's 53rd Annual Meeting, 2006—Denver, CO – presentation 602.

PRELIMINARY VALIDATION OF A NEW DEVICE FOR STUDYING SLEEP

Germain, A., Buysse, D.J., Kupfer, D.J.

Psychiatry, University of Pittsburgh School of Medicine, Pittsburgh, PA, USA

**Publication: Presented at “SLEEP 2006” - 20th Anniversary Meeting of the Associated Professional Sleep Societies (APSS), 2006 Salt Lake City, Utah -
*Sleep 29: A1028, 2006***

DIFFERENCES BETWEEN SUBJECTIVE AND OBJECTIVE OBSERVATIONS OF PHYSICAL ACTIVITY FOR COLLEGE FEMALES

Wadsworth, D. D. ¹; Hallam, J. S. ²; Grandjean, P.

¹Auburn University, AL. ²The University of Mississippi, MS, .

Publication: Medicine & Science in Sports & Exercise. 38(5) Supplement:S554, May 2006.

ASSESSMENT OF PHYSICAL ACTIVITY USING A MULTISENSOR ARMBAND

T. Troosters, D. Langer, D. Saey, R. Gosselink, M. Decramer (Leuven, Belgium)

Respiratory, rehabilitation and respiratory division, UZ-Leuven, Leuven, Belgium - Faculty of kinesiology and rehabilitation sciences, Katholieke Universiteit Leuven, Leuven, Belgium

**Publication: Presented at the 2006 European Respiratory Society meeting – Munich, Germany,
Poster Discussion : Pulmonary rehabilitation and skeletal muscles, COPD and non-COPD,
Tuesday 5 September 2006**

A NEW DEVICE FOR MEASURING RESTING ENERGY EXPENDITURE (REE) IN HEALTHY SUBJECTS

Malavolti, M.(a), Pietrobelli, A.(ab), Dugoni, M.(a) Poli, M.(a) Romagnoli, E.(a), De Cristofaro, P., (c)
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b Paediatric Unit, Verona University Medical School, Verona, Italy

c Centro Regionale di Fisiopatologia della Nutrizione ASL Teramo, Italy

Publication: NMCD (Nutrition, Metabolism and Cardiovascular Diseases); (in press)



Correlates of body composition alterations in elderly patients with COPD

Lavinia Martino, Salvatore Battaglia, Mario Spatafora, Cesare Gagliardo, Vincenzo Bellia

Department of Medicine, Pneumology, Physiology and Human Nutrition (DIMPEFINU),
University of Palermo, Palermo, Italy

presented on 5 October 2006, session Poster “respiratory pathology in old age” at the 7° National Congress for Pneumology - UIP - organized by SIMeR. *Firenze, 4 -7 October 2006*

ENERGY EXPENDITURE IN OBESE PATIENTS SUFFERING FROM OBSTRUCTIVE SLEEP APNEA SYNDROME (OSAS)

M. Rizzi, M. Pecis, A. Andreoli

U.O. Respiratory Physiopathology– Azienda Ospedaliera Polo Universitario “Luigi Sacco” Milano, Italy

Presented at the XVI National Congress of the Society of Sleep Medicine(AIMS) in Milan, 12 - 15 November, 2006.

Session “Sleepiness, OSA, Nutritional Disorders”, Monday 13 November, 8:30 – 10:00

CAN THE LIFESTYLE OF THE OBESE PATIENT BE ASSESSED ?

Roggi C, Cena H, Turconi G.

Universita degli Studi di Pavia, Italy – Department of Applied Health and Psychobehavioural Sciences – Department of Nutritional Sciences

Presented at : 42nd National Congress S.I.T.I. (Italian Society of Hygiene, Preventive Medicine and Public Health), Catania, 27-30 October 2006.

ALTERNATIVE INDICATORS IN METABOLIC CONTROL

P.DeFeo, C. DiLoreto, A. Ranchelli, C. Fatone, M. Miccio, G. Gambelunghe, P.Lucidi

Department of Internal Medicine, Section of Internal Medicine and Metabolic and Endocrine Diseases, University of Perugia, Perugia, Italy

Publication : Diabetes Research and Clinical Practice 74 (2006) S72-S66

HOW TO EVALUATE PHYSICAL ACTIVITY IN THE GERIATRICS CLINIC?

E. Ferrari, C. Mussi, M. Foroni.

Chair of Geriatrics, Università of Modena and Reggio Emilia, Italy.

Presented at : 52° annual meeting of the Italian Society of Gerontology and Geriatrics, Florence, Italy, 28 Nov – 2 Dec 2006



EVALUATION OF A PORTABLE DEVICE TO MEASURE DAILY ENERGY EXPENDITURE IN FREE-LIVING ADULTS

Maxime St-Onge, Diane Mignault, David B Allison, and Rémi Rabasa-Lhoret

From the Metabolic Dysfunction Laboratory, Nutrition Department, University of Montreal, Montreal, Canada (MS-O, DM, and RR-L), and the Department of Biostatistics, Section on Statistical Genetics and Clinical Nutrition Research Center, University of Alabama at Birmingham, Birmingham, AL (DBA)

Publication : Am J Clin Nutr 2007 85: 742-749

HYPOKINETIC SÍNDROME AND USE OF A METABOLIC HOLTER IN BARIATRIC SURGERY

Murgio A.°; Fernandez E.°; Arnone L.°; De Cristofaro P.●

°Instituto de Globesidad – Mar del Plata (Argentina); ●Teramo, (Italy).

Presented at : 9° meeting of the Spanish Society of Obesity Surgery (SECO-GETAFE). Madrid, 7-9 March 2007

White Papers by BodyMedia: detailed un-published work, development of the sensors, internal validations, and comparison with other techniques.

THE DEVELOPMENT OF THE SENSEWEAR ARMBAND, A REVOLUTIONARY ENERGY ASSESSMENT DEVICE TO ASSESS PHYSICAL ACTIVITY AND LIFESTYLE

Andre,D., Pelletier,R. , Farrington,J., Safier, S. , Talbott,W., Stone,R., Vyas,N., Trimble,J., Wolf,D., Vishnubhatla,S., Boehmke,S., Stivoric,J., Teller, A.

ACCURACY AND RELIABILITY OF THE SENSEWEAR ARMBAND AS AN ENERGY EXPENDITURE ASSESSMENT DEVICE

. Liden,C.B., , Wolowicz,M. , Stivoric,J. , Teller,A., , Vishnubhatla,S., Pelletier,R., Farrington,J. .

BENEFITS OF THE SENSEWEAR™ ARMBAND OVER OTHER PHYSICAL ACTIVITY AND ENERGY EXPENDITURE MEASUREMENT TECHNIQUES

Liden,CB.,Wolowicz, M., Stivoric, J., Teller,A. , Vishnubhatla, S. Pelletier,R. , Farrington, J. , Boehmke, S.

CHARACTERIZATION AND IMPLICATIONS OF THE SENSORS INCORPORATED INTO THE SENSEWEAR ARMBAND FOR ENERGY EXPENDITURE AND ACTIVITY DETECTION

Liden, C.B., Wolowicz, M., Stivoric, J., Teller, A. , Kasabach, C. , Vishnubhatla, S., Pelletier, R., Farrington, J., Boehmke, S.



THE SENSEWEAR ARMBAND AS A SLEEP DETECTION DEVICE

Sunseri,M. , Liden,C.B., Farrington,J. , Pelletier,R. , Safier,S., Stivoric,J.Teller,A. ., Vishnubhatla,S.

WHY THE UPPER ARM? FACTORS CONTRIBUTING TO THE DESIGN OF AN ACCURATE AND COMFORTABLE, WEARABLE BODY MONITOR

Kasabach,C. , Pacione,C. , Stivoric,J. .,Teller, A., Andre,D. .

Company Websites:

www.bodymedia.eu

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