



BODYMEDIA SenseWear Armband

Validazioni, Pubblicazioni, Lavori Scientifici – Aprile 2007

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FIELD VALIDATION OF THE MTI ACTIGRAPH AND BODYMEDIA ARMBAND MONITOR USING THE IDEEA MONITOR

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Publication : Obesity 2007, Vol 15, No 4 pag. 918-928

THE EFFICACY OF A TECHNOLOGY-BASED SYSTEM IN A SHORT-TERM BEHAVIORAL WEIGHT LOSS INTERVENTION

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Publication : Obesity 2007, Vol 15, No 4 pag.825-830

SURGEON ENERGY EXPENDITURE DURING TOTAL JOINT ARTHROPLASTY

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Publication : The Journal of Arthroplasty - Volume 22, Issue 2 , February 2007, Pages 210-212



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

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

HYPOKINETIC SÍNDROME AND USE OF A METABOLIC HOLTER IN BARIATRIC SURGERY

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

Anno 2006

ALTERNATIVE INDICATORS IN METABOLIC CONTROL

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

EVALUATION OF A MULTISENSOR ARMBAND IN ESTIMATING ENERGY EXPENDITURE IN OBESE INDIVIDUALS

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Publication : Obesity 2006, Dec; 14(12):2217-23.



IL REGIME ALIMENTARE E L'INTEGRAZIONE NUTRIZIONALE NEL PRATICANTE ATTIVITA' MOTORIA PREVENTIVA

E. Del Toma

Università Campus Bio-Medico, Roma

Presentato al convegno Nazionale FMSI, Napoli, Dic 2006 - MEDICINA DELLO SPORT - VOLUME 59 - N. 4 - DICEMBRE 2006

COME VALUTARE L'ATTIVITÀ FISICA NELL'AMBULATORIO DI GERIATRIA?

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

Cattedra di Geriatria, Università di Modena e Reggio Emilia.

Presentato al : 52° Congresso nazionale della SIGG - Società italiana di Gerontologia e Geriatria - Firenze 28.11-2.12.2006.

LA SPESA ENERGETICA NEI PAZIENTI OBESI AFFETTI DA OBSTRUCTIVE SLEEP APNEA SYNDROME (OSAS)

M. Rizzi, M. Pecis, A. Andreoli

U.O. Fisiopatologia Respiratoria– Azienda Ospedaliera Polo Universitario “Luigi Sacco” – Milano

Presentato al : XVI congresso nazionale della società di medicina del sonno (AIMS) a Milano, 12 - 15 Novembre, 2006.

Sessione “Sonno, OSA, Disturbi dell’ alimentazione”, Lunedì 13 Novembre, 8:30 – 10:00

E' VALUTABILE LO STILE DI VITA DEL PAZIENTE OBESO?

Roggi C, Cena H, Turconi G.

Università degli Studi di Pavia - Dipartimento di Scienze sanitarie Applicate e Psicocomportamentali - Sezione di Scienze dell'Alimentazione

Presentato al : 42° Congresso Nazionale S.I.T.I (Società Italiana di Igiene Medicina Preventiva e Sanità' Pubblica), Catania, 27-30 Ottobre 2006.



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

Marcella Malavolti ([a](#)), Angelo Pietrobelli ([ab](#)), Manfred Dugoni ([a](#)), Marco Poli ([a](#)), Elisa Romagnoli ([a](#)), Paolo De Cristofaro ©, Nino C. Battistini ([a](#))

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Publication : NMCD (Nutrition, Metabolism and Cardiovascular Diseases – Full paper in press

Correlati delle alterazioni della composizione corporea in pazienti anziani con BPCO

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

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Università di Palermo; Palermo

Presentato al : 7° Congresso Nazionale per la Pneumologia - UIP - organizzato da SIMeR. Firenze, 4-7 Ottobre 2006 - presentato il giorno 5 Ottobre 2006, sessione Poster "patologia respiratoria in età avanzata"

ASSESSMENT OF PHYSICAL ACTIVITY USING A MULTISENSOR ARMBAND

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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

PRELIMINARY VALIDATION OF A NEW DEVICE FOR STUDYING SLEEP

Germain A, Buysse DJ, Kupfer DJ

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), June 17-22, 2006 Salt Lake City, Utah
Cathergy Q – Instrumentation and Methodology**



Quantifying physical activity in daily life with questionnaires and motion sensors in COPD

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M. Decramer*^{#,5} and R. Gosselink*^{#,6}

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

Correlates of Energy Expenditure and Sedentary Life in Free-Living COPD

S. Battaglia, MD, L. Martino, MD, M. Spatafora, MD and V. Bellia, MD

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Publication : Presented at the American Thoracic Society annual meeting , May 19-24, 2006 [Publication Page: A209] - Thematic Poster Session, [A139] EXERCISE LIMITATION IN COPD: PREDICTORS, PHYSIOLOGY, AND INTERVENTIONS

Validation of SenseWear® Armband to Assess Energy Expenditure in Children Ranging in Body Size

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Publication : Presented at ACSM's 53rd Annual Meeting, May 31-June 3, 2006—Denver, CO – presentation 602. group : energy balance and weight control

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

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

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



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

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Publication: Diabetes Care (Observations/letters), Volume 28, Number 1, Jan 2005, Pag 225-227

RAPPORTO TRA CONSUMO ENERGETICO ATTIVO E TOTALE NELLA CHOREA DI SYDENHAM: UN CASO CLINICO.

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Publication: Abstract presentato al Convegno Nazionale dei Neurologi Ospedalieri Italiani - Grado 18-21 Maggio 2005

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

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Publication: Abstract presentato al convegno annuale dell' American College of Sports Medicine 2005, Las Vegas, Nv, USA

EMERGING CONCEPTS IN OUTCOME ASSESSMENT IN COPD CLINICAL TRIALS

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



Principles of Design and Analyses for the Calibration of Accelerometry-Based Activity Monitors.

Gregory J. Welk

Department of Health and Human Performance, Iowa State University, Ames, IA

Publication: Medicine & Science in Sports & Exercise. 37(11) Supplement:S501-S511, November 2005

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

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Publication : Diabete in Movimento, Numero 5, Anno 4, Giugno 2005

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

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

VALUTAZIONE DEL DISPENDIO ENERGETICO GIORNALIERO IN UNA POPOLAZIONE DI BAMBINI OBESI E NORMOPESO : DATI PRELIMINARI

Bellone S., Baldelli R., Petri A., Ferraris M., Lapidari A., Savastio S., Bona G.

Clinica Pediatrica, Dipartimento di Scienze Mediche, Università degli Studi del Piemonte Orientale “A. Avogadro”, Novara

Publication : S.I.E.D.P. News – organo ufficiale della Società Italiana Endocrinologia e Diabetologia Pediatrica – Atti del XY congresso nazionale - Supplemento N. 1, Vol 8, 2:246-247

VALUTAZIONE DELL' AREA DINAMICO-ENERGETICA: ASPETTI METABOLICI DELLA RESPIRAZIONE E MONITORAGGIO DINAMICO DEL DISPENDIO ENERGETICO.

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Publication : Atti del XXXIII Congresso nazionale SINU (società Italiana Nutrizione Umana) 2005 - relazioni invitate - Pag. 36



VALUTAZIONE DELLA SPESA ENERGETICA GIORNALIERA (TEE) CON POLISENORE SENSE WEAR (BODY MEDIA) IN SOGGETTI CON OBESITÀ MORBIGENA.

B. Dragani, P. De Cristofaro, A. Pietrobelli*, G. Malatesta, M. Malavolti**, N.C. Battistini**

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Publication : Atti del XXXIII Congresso nazionale SINU (società Italiana Nutrizione Umana) 2005 - Poster - Pag. 80

VALIDAZIONE DEL “MULTISENORE” PER LA MISURAZIONE DELLA SPESA ENERGETICA A RIPOSO (REE)..

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Publication : Atti del XXXIII Congresso nazionale SINU (società Italiana Nutrizione Umana) 2005 – Comunicazione Orale - Pag. 73-74

CAMPO SCUOLA PER L’OBESITÀ: VALUTAZIONE EFFICACIA DEL PROTOCOLLO DI ATTIVITÀ FISICA E ANALISI CRONOBIOLOGIA DEGLI INDICI DELL’ ATTIVITÀ FISICA PRATICATA

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Publication : Atti del XXXIII Congresso nazionale SINU (società Italiana Nutrizione Umana) 2005 – Comunicazione Orale - Pag. 61

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

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Publication : Obesity Research 2005; 13:A175



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

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Donna J. Erickson,* and Richard A. Boileau**

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Publication : American Journal of Nutrition 2005; J. Nutr. 135: 1903–1910, 2005.

Anni 2003-2004

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

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Publication: Journal of the American Dietetic Association. 2004;104:1398-1409.

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

John Jakicic, Marsha Marcus, Kara Gallagher, Colby Randall, Erin Thomas, Fredric L. Goss, and Robert J. Robertson.

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Publication: Medicine & Science in Sports and Exercise (May 2004) - Med Sci Sports Exerc. 2004; 36: 897-904

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

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Publication: Medicine & Science in Sports & Exercise. 36(6):1063-1069, June 2004



VALIDATION OF A WEARABLE BODY MONITORING DEVICE IN COPD

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Publication: **Abstract, American Journal of Respiratory and Critical Care Medicine (ATS meeting May 2004) - Am J Respir Crit Care Med. 2004; 30:A771**

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

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

Publication: Journal of Sports Medicine and Physical Fitness (September 2004)

COMPARISON OF ACTIVITIES MONITORS TO ESTIMATE ENERGY EXPENDITURE OF TREADMILL EXERCISE

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

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

Publication: **Medicine & Science in Sports and Exercise - Vol. 36, No. 7, pp. 1244–1251, 2004.**

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

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

Publication: SYMPOSIUM "ERGONOMICS IN ACTION"
27th International Congress on Occupational Health (Medicina del lavoro)
Iguassu Falls, Brazil February 23-28, 2003



White Papers by Bodymedia (lavori dettagliati non pubblicati su sviluppo, sensori, validazioni interne, comparazioni con altre tecniche, etc.)

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

Andre,D., Pelletier,R. , Farrington,J., Saffier, 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. , Saffier,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. .

www.armband.it

www.bodymedia.com

www.sensormedics.it