Curriculum Vitae

Mark E. Benden, PhD, CPE

EXPERIENCE

Sep 2015 – Present	Texas A&M Health Science Center, School of Public Health Environmental & Occupational Health Department, College Station Texas 77843
	Department Head, Associate Professor & Director of the Ergonomics Center
	Associate Professor- Industrial & Systems Engineering Department
Sep 2013 – Sep 2015	Texas A&M Health Science Center, School of Public Health
	Environmental & Occupational Health Department, College Station Texas 77843
	Associate Professor& Director of the Ergonomics Center
July 2008 – Aug 2013	Texas A&M Health Science Center, School of Rural Public Health
	Environmental & Occupational Health Department, College Station Texas 77843
	Assistant Professor& Co-Director of the Ergonomics Center
Oct. 1998 – Jun 2008	Neutral Posture, Inc., 3904 N. Texas Ave., Bryan, TX 77803
	Executive Vice President of Engineering, Development and Sales
Feb. 1998 – Oct. 98	Neutral Posture Ergonomics, Inc., 3904 N. Texas Ave., Bryan, TX 77803
	Director of Engineering and Development
March 1997 - Feb. 1998	Johnson & Johnson Safety & Industrial Hygiene, Miami Lakes, FL 33029
	Staff Ergonomic Engineer and Franchise Safety Manager, Cordis, Inc.
May 1994 - March 1997	Johnson & Johnson Safety & Industrial Hygiene, San Angelo, TX 76905
	Senior Ergonomic Engineer
May 1992 - May 1994	ETHICON, Inc., San Angelo Plant, San Angelo, TX 76905
	Ergonomic Engineer
Sept. 1988 - Present	M. E. Benden Company, 5713 Shellbourne's Hill, College Station, TX 77845
	Ergonomic Design Consultant& Expert Witness
July 1991 - June 1992	Pathway Industries, Inc., 2301 Fountain Ave., Bryan, Texas 77801
	Ergonomic Consultant
Dec. 1985 - 1993	United States Army Reserve and Texas Army National Guard
	First Lieutenant – last rank following move to Inactive Reserve

EDUCATION

PhD in Interdisciplinary Engineering, Dec 2006

Specialization in Ergonomics

Texas A&M University, College Station Texas 77843

M.S. Industrial Engineering, May 1992 Specialization: Human Factors/Ergonomics

Texas A&M University, College Station, TX 77843

B.S. in Bioengineering, May 1990 Specialization: Human Factors

Texas A&M University, College Station, TX 77843

CERTIFICATION

Certified Professional Ergonomist, October 1994, certificate #706 from the Board of

Certification in Professional Ergonomics, Inc.



PUBLICATIONS

- -Benden, M., "An Evaluation of the Use of a Dual Frequency Vibrometer in the Screening of Individuals for Carpal Tunnel Syndrome," Texas A&M University Office of Graduate Studies, (Thesis) May 1992
- -Benden, M., "Creating the Painless Inspection Station," <u>Ergonomics in Design:</u> The Quarterly of Human Factors Applications, July 1994; vol. 2, 3: pp. 22-29
- -Applied Ergonomics, Edited by Alexander & Rabourn, Taylor & Francis 2001 Chapter 35 "Use of Three-Dimensional Fabric Yields Ergonomic Benefits in Upholstery Work"
- -Benden, M., "The Obese Office Worker Seating Problem" Texas A&M University Office of Graduate Studies (Dissertation) Dec 2006.
- -Benden, M., "Selecting Seating for 911 Communication Centers", <u>Emergency Number Professional Magazine</u> March 2007, Volume 25 Number 2.
- -Benden, M., "Could You Stand to Lose? Weight Loss Secrets for Office Workers" 1st Edition, Trinity River Publishing, July 2007. ISBN 978-60402-234-6.
- -Benden, M., Pickens, A., "Measuring Office Ergonomics Training Can Show Impact" Industrial Engineer, Sep 2009, Vol 41:No 9
- -Benden, M, "Could You Stand to Lose? Weight Loss Secrets for Office Workers" 2nd Edition Trinity River Publishing, July 2008, ISBN 978-60402-234-6.
- -Benden, M., Blake, J., "Wendel, M, Huber C., "The impact of stand-biased desks in classrooms on calorie expenditure in children" 2011 March 18 AJPH August 2011, Vol 101, No.8 pages 1433-1436 PMID: 21421945.
- -Benden, M., Congleton, J.J., Fink, R., "An In-Situ Study of the Habits of Users that Impact Office Chair Design and Testing" Journal of the Human Factors and Ergonomics Society Feb 2011, No.1 Vol. 53, PMID 21469532.
- Blake, J., Benden, M., Wendel, M., "Using Stand/Sit Workstations in Classrooms: Lessons Learned from a Pilot Study in Texas" Journal of Public Health Management and Practice;2012 Sep-Oct;18(5):412-5. PMID: 22836531
- -Benden M, Mancuso L, Zhao H, Pickens A. "The Ability of the SenseWear® Armband to Assess a Change in Energy Expenditure in Children While Sitting and Standing". JEPonline 2011;14(3):1-14.
- -Smith ML, Benden ME, Lee C. Promoting active communities in a culture of distracted driving. Prev Chronic Dis 2012;9:110212. PMID:22172198.
- -Dickerson JB, Smith ML, Benden ME, Ory MG. (2011). The Association of Sedentary Behaviors and Body Mass Index Classification in a Cross-Sectional Analysis: Are the Effects Homogenous? BMC Public Health 2011 Dec 14;11(1):926; PMID:22168952.
- -Benden, M., Miller, K., Wilke, E., Ibarra, E., "A new method to compare alternative design concepts using expert opinion A case study of seat development for a medical transport vehicle" Ergonomics in Design: The Quarterly of Human Factors Applications, Jan 2012 January 2012; vol. 20, 1: pp. 11-17.
- -Benden, M., Fink, R., Stafford, J., Teen Driver Cell Phone Blocker, Final Report; UTCM Project #10-15-47 Texas Transportation Institute, Feb 2012
- -Benden ME, Wendel ML, Jeffrey CE, Zhao H, Morales ML. Within-Subjects Analysis of the Effects of a Stand-Biased Classroom Intervention on Energy Expenditure. JEPonline 2012;15(2):9-19.
- -Miller K, Benden M, Pickens A, Shipp E, Zheng Q. Ergonomics Principles Associated with Laparoscopic Surgeon Injury/Illness. The Journal of the Human Factors and Ergonomics Society. Dec 2012 vol. 54, No. 6, pp.1087-92.
- -Benden, M., Smith, M. L., Henry, M., & Congleton, J. J. (2012). Reviewing four decades of cell phone use while driving literature (1970-2010): An emphasis on texting behaviors, parental perceptions, and methods of control. *Journal of Health Behavior and Public Health, Vol 2, No. 2, pp. 20-26.*
- -Benden, M., Pickens, A., Shipp, E., Perry, J., Schneider, D., Evaluating a school based childhood obesity intervention for posture and comfort. Health, Vol. 5 No83A, August 2013 pp 54-60.
- -Benden, M.E.; Zhao, H.; Jeffrey, C.E.; Wendel, M.L.; Blake, J.J. The Evaluation of the Impact of a Stand-Biased Desk on Energy Expenditure and Physical Activity for Elementary School Students. *Int. J. Environ. Res. Public Health* 2014, *11*, 9361-9375.
- -Paterson, C; Miller, K; Benden, M; Shipp, E; Pickens, A; Wendel, M; Pronovost, P., The Safe Day Call:

 Reducing Siles in Health Care Through Frontline Rick Accessment Joint Commission Journal on



- Benden, M.; Standing Up for Activity Permissive Learning Environments, Texas School Business, Nov/Dec 2014 pp. 23-24. http://issuu.com/tasanet/docs/tsb-november14?e=11039933/9953276
- -Dornhecker, M., Blake, JJ., Benden, M., Zhao, H., Wendel, M. The effect of stand-biased desks on academic engagement: an exploratory study; International Journal of Health Promotion and Education Published online 21 Apr 2015.
- -Bellingar, T., Benden M.; "New ANSI/BIFMA Standard for Testing of Educational Seating" Ergonomics in Design: The Quarterly of Human Factors Applications, April 2015, Vol. 23, Number 2, pp 23-27.
- -Pickens AW, et al., Stand-capable desk use in a call center: a six-month follow-up pilot study, Public Health (2015), http://dx.doi.org/10.1016/j.puhe.2015.10.024
- -Hinckson, E., Salmon, J., Benden, M., Clemes, S. A., Sudholz, B., Barber, S. E., & Ridgers, N. D. (epub 1 Dec 2015). Standing Classrooms: Research and Lessons Learned from Around the World. Sports Medicine, pp. 1-11.
- -Mehta RK, Shortz AE, Benden ME Int J Environ Res Public Health. 2015 Dec 22;13(1). pii: E59. doi: 10.3390/ijerph13010059. Standing Up for Learning: A Pilot Investigation on the Neurocognitive Benefits of Stand-Biased School Desks
- -Garrett, G., Benden, M., Mehta, R., Pickens, A., Peres, C., Zhao, H., Call Center Productivity Over 6 Months Following a Standing Desk Intervention; IIE Transactions on Occupational Ergonomics and Human Factors, May 2016DOI: 10.1080/21577323.2016.1183534
- -Pickens, A., Benden, M., Schneider, D., Zhao, H.; Use of Stand-Biased Desks to Reduce Sedentary Time in High School Students: A Pilot Study, Intl J. of Child Health and Nutrition; June 2016 DOI: 10.6000/1929-4247.2016.05.02.4
- -Marsalia, A., Ferris, T., Benden, M., Zheng, Q., Evaluation of Vibrotactile Warning Systems for Supporting Hazard Awareness and Safety of Distracted Pedestrians; IIE Transactions On Occupational Ergonomics And Human Factors Vol. 4, Issue. 4. 2016
- Miller KE, Benden ME, Shipp EM, Pickens AW, Wendel ML, Pronovost PJ, Watts BV Predicting violent behavior in clinical settings: a case-control study of a mental health inpatient unit. J Healthc Prot Manage. 2016;32(1):106-19. PMID:26978965
- -Wendel, M. Benden, M, Zhao, H, Jeffrey, C; Stand-Biased Versus Seated Classrooms and Childhood Obesity: A Randomized Experiment in Texas, American Journal of Public Health: October 2016, Vol. 106, No. 10, pp. 1849-1854
- -Osofundiya O, Benden ME, Dowdy D, Mehta RK. Obesity-specific neural cost of maintaining gait performance under complex conditions in community-dwelling older adults. Clin Biomech (Bristol, Avon) 2016 Jun;35:42-8. doi: 10.1016/j.clinbiomech.2016.03.011. Epub 2016 Apr 8.
- -Towne SD Jr, Ory MG, Smith ML, Peres SC, Pickens A, Mehta R, Benden M. (2017). Accessing physical activity among young adults attending a university: The role of sex, race/ethnicity, technology use, and sleep. BMC Public Health. Accepted Sept 11, 2017. In Press. [2016 Impact Factor 2.265; SCIE]

Proceedings/Invited Lectures

- -Benden, Mark and Parker, M. K. "Benefits of Three Dimensional Knitted Fabric on Chair Manufacturing". Applied Ergonomics Conference, Orlando, FL. March 2000
- -Benden, M., "The Patent Process for Ergonomic Products" Conf. Proceedings of the Sixth Annual Applied Ergonomics Conference, Dallas, Texas Mar. 2003
- -Congleton, J., Craig, B., Benden, M., and Parker, M. (October 2003) *Current and Future Office Ergonomic Trends*. 47th Annual Human Factors and Ergonomics Conference, Human Factors and Ergonomics Society, Poster Session.
- -Benden, M., "Use of Three Dimensional, Knitted Fabric Yields Ergonomic Benefits in Upholstery Work "A Two Year Follow Up Study", Conf. Proceedings of the First Annual Association of Canadian Ergonomist's Conference, Toronto, Canada, Oct. 2003.



- Benden, M., Congleton, JJ., "Chair Specifications and Testing for Big & Tall Seating" March 13, 2007 Proceedings of the Tenth Annual Applied Ergonomics Conference.
- -Benden, M. "Lean Patient Handling" National Ergonomics Conference, Las Vegas, NV, November 18, 2009.
- -Benden, M., "Ergonomic Expert Roundtable Lecture Occupational Obesity," Applied Ergonomic Conference, March 2009, Reno NV
- -Benden, M., "Stand-Biased Workstations for Control of Office Worker Obesity," Applied Ergonomics Conference, March 2009, Reno, NV.
- -Benden, M., Industrial Ergonomics, Salud Y Seguridad Laboral Panama, April 2009
- -Benden, M., Stand to Lose, Salud Y Seguridad Laboral Panama, April 2009
- -Benden, M., "A Case Study In The Design And Development of An Ergonomic Vehicle For The Transport of Rural Patients" Applied Ergonomics Conference, March 23rd 2010.
- -Benden, M., "A new vehicle design for rural and urban patient transport" UTCM Mobility Colloquium, April 2009.
- -Benden, M., Applied Ergo lecture March 2010 San Antonio "Ambicycle Development and Testing"
- -Benden, M. E., Wendel, M. L., & Smith, M. L. (2011). Modifying classroom environments to reduce health risk among elementary students. Poster presented at the Annual International Conference on the Health Risks of Youth, January 5-8, 2011, Cancun, Mexico.
- -Morales, M., Benden, M., Jones, P. Dynamic Classroom Environments to reduce childhood obesity, April 29, 2011 Houston Tx, Regional HFES Conference.
- -Benden, M, Morales, M., Wendel, M., 244647, entitled "Dynamic Classroom Environments Utilizing Stand-biased Desks to Reduce Childhood Obesity" 139th APHA Annual Meeting (October 29 November 2, 2011) in Washington, DC
- -Smith, M. L., Benden, M. E., Lindner, J. R., Cotton, C. P., Henry, M., Dickerson, J. B., & Congleton, J. J. (2012). Perceptions of texting while driving behavior among parents of teen drivers: Does terminology make a difference? American Academy of Health Behavior Annual Conference, March 18-21, 2012, Austin, TX.
- -Smith, M. L., Benden, M. E., Cotton, C. P., Henry, M., & Congleton, J. J. (2012). *Texting while driving behaviors and related influences: Parent-teen concordance from the parental perspective*. Poster to be presented at the Annual International Conference on the Health Risks of Youth, January 4-7, 2012, San Juan, Puerto Rico.
- -Benden, M., Bosen, D., "Obesity in the Workplace: Challenges and Solutions" Mastertrack for Applied Ergonomics Conference March 28th 2012.
- -Miller, K., Benden, M., "Industry/University Collaborative," Applied Ergonomics Conference March 28th 2012
- -Benden, M., Ekelund, E., Hinkley, T., Hinkson, E., International Society of Behavioral Nutrition and Physical Activity in Austin, TX, May 25th, 2012, "A behavioural Epidemiologic Perspective on Sedentary Behavior in Children: Health, Measurement, Correlates, Interventions." & Advanced Measurement Methods for Sedentary Behavior in Children
- -Kress, M., Benden, M., 6-Month Follow-Up: Comparison of Sit-to-Stand and Stand-Biased Desks in a Call Center;
 Applied Ergonomics Conference. Orlando Florida March 2013



- -Pickens, AW, Benden, ME. "Curriculum Development for HF/E Graduate Students: Lessons Learned in an Ongoing Effort to Educate and Meet Industry Demands", 57th HFES Conference, October 2013
- -Garrett, G., Benden, M., Applied Ergonomics Conference March 2015 "Thinking on your feet can be productive"
- -Benden M, Zhao H, Schneider D. A 2-year evaluation of a high school standing desk intervention to reduce sedentary behavior in us children. In the symposium: Restructuring the classroom environment to reduce sedentary behaviour: Evidence from primary and secondary school interventions across the globe. International Society of Behavioral Nutrition and Physical Activity; 2015; Edinburgh, Scotland p. 115.
- Benden, M. Keynote Address ORCHSE "EOH Updates" Washington DC Feb 2016
- -Benden M. AIHA Conference Invited Lecture, Baltimore May 2016
- Benden M. Invited Lecture Bay Area Ergonomic Round Table Aug 2016
- -Benden, M. Invited Lecture, Sacramento Ergonomic Round Table Aug 2016
- -Benden, M., Invited Lecture, Austin Ergonomic Round Table Aug 2016
- Benden, M. OERC Marconi Conference, Invited Lecture on Research Methods for Computer Tracking of Office Worker Behavior, Jan 2017
- -Garrett, G. Mehta, R., Benden, M., Applied Ergonomics Conference March 2017, Cognitive Benefits of Sit-Stand Desk Workstation
- -Bridges, L., Benden, M., Applied Ergonomics Conference March 2017 Remedy Interactive Study to Determine Musculoskeletal Issues from Desktop Software
- -Sharma, P., Owens, W., Benden, M., Applied Ergonomics Conference March 2017 Sit-stand Desks: Can We Increase their Use with Computer Software?
- -Benden, M. Keynote Address on the State of the Science in Sedentary Behavior Research Arizona State University Wellness Summit, March 2017
- -Benden, M. Charter Schools Conference Washington DC, Invited Lecture and Facebook Live broadcast talk on School PA Research Jun 2017
- -Benden, M., Ergo X of HFES, Invited Lecture on Computer Prompts for Reducing Sedentary Behavior Jun 2017

PATENTS

- **1.** US Patent #6,142,571 Ergonomic Footrest Apparatus for a Chair
- 2. US Patent # 6,220,663 Lumbar Pump Assembly for a Chair
- 3. US Patent # 6,296,312 Ergonomic Armrest Assembly
- 4. US Patent # 6,290,295 Air Pump Assembly for a Chair



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