



23 Woodcliff Terrace
Fairport, NY 14450
+1 585-586.4302



www.guidanceengineering.com

Jasper E. Shealy, Ph.D., CPE

Principal and Human Factors Engineer

Dr. Jasper Shealy is a Principal and Human Factors Engineer at Guidance Engineering and Applied Research. He specializes in human factors/ergonomics, accident reconstruction and research in the field of winter alpine sports. Dr. Shealy investigates human injuries in accidents and product failures by using systems engineering and human factors/ergonomics to understand the interaction between the human, the environment, the task and any machines that might be used by the human in performing the task. By studying the interaction between the system components, he is able to determine root causes of systems failures. He has reconstructed and evaluated numerous injury claims resulting from winter recreational sports (including skiing, snowboarding, tubing, and sledding), as well consumer product failures, and industrial accidents.

Dr. Shealy's career in alpine winter sports injury research began with his Master's and Doctoral research while in graduate school in the early 1970's and continues to the present. He has been an invited faculty member at several AAOS Winter Sports Trauma workshops as well as the Maine Society of Orthopedic Surgeons and the New England Medical Association. He has also frequently been an invited speaker at the NSP, NSAA, Canadian Ski Association, Canada West and other snow sports related organizations.

He has been a member of the International Society for Skiing Safety (ISSS) since 1981, and is currently a member of its Board of Directors. He has attended and presented one or more papers at the various ISSS International Congresses on Ski Trauma since 1981. He has been a co-editor for the ASTM STP series on *Ski Trauma and Safety* since 1999.

He has been a member of the American Society for Testing and Materials (ASTM) and the International Society for Skiing Safety (ISSS) since the early 1970's. He served as F27 Vice-Chair from 1993 to 1999, Chair from 2000 to 2006 and Vice-Chair again from 2007 to 2014. He served as a technical delegate representing the U.S. at ISO meetings on matters relating to ski and snowboard equipment issues from 1990 to 2013. He is the past chair of the Statistics subcommittee and past chair of the Ski Boot subcommittee.

He has been doing nation wide ski injury research since 1978. He was the principal investigator for the ASTM shop practices feasibility study that led to the current shop practice standards that are now been adopted worldwide. He is the author or co-author of numerous technical papers dealing with various aspects of ski injury research, including overall trends, comparisons between skiing, snowboarding, and cross-country skiing, fatalities, ski boot design, specific injury mechanisms, etc.

He is a co-investigator with Dr. Robert J. Johnson and Carl Ettlinger on the ongoing prospective epidemiological case-control study of skiing and snowboarding injuries at the Sugarbush Resort in

Vermont. This study has continuously tracked injuries at Sugarbush since the winter of 1972/73 up to the present. They are the authors of the ACL Awareness Project. He frequently serves as a consultant in the reconstruction of ski-injury accidents.

Before joining Guidance Engineering, he was an engineering professor at Rochester Institute of Technology from 1973 to 2001; at various times, he was head of the Industrial and Manufacturing Engineering department, Assistant, Associate and Full Professor, as well as Director of the Human Performance Lab. He is currently a Professor Emeritus of Engineering at RIT.

From 1970 to 1973 he was a Graduate Student Research Assistant at SUNY/Buffalo in Industrial Engineering, specializing in Human Factors Engineering. His major areas of course work and research were in psychological and physiological aspects of human performance, risk perception and theories of accident causation and systems failure. During this time, he worked on projects at CALSPAN (Cornell Aeronautical Laboratories) in US-DOT sponsored work on vehicle crash-worthiness, MOOG Aerospace on inventory control and space utilization, and Erie County Medical Services on EMT Training and Utilization.

From 1963 to 1970, he was an officer in the United States Air Force; final rank Captain. From 1968 to 1970 he was a Personnel Subsystems Officer. His duties in that included responsibilities for Human Factors requirements for new or proposed weapons systems, and review officer for human factors aspects in serious accident investigations. He served as an Air Police Officer; 11/63 to 5/68, including a tour of duty in the Republic of Vietnam as an Air Police Officer in charge of the security at Pleiku Air Base from May 1967 to May 1968.

Academic Credentials and Professional Honors

Ph.D., Industrial Engineering (Human Factors Engineering), **State University of New York at Buffalo**. Dissertation title: "The Effect of Risk Taking on Skilled Task Performance," 1974.

MS, Industrial Engineering (Human Factors Engineering), **State University of New York at Buffalo**. Thesis title: "Epidemiology of Ski Injuries in a Closed Population," 1973.

BS, Applied Experimental Psychology, **Georgia Institute of Technology, Atlanta, GA**, 1963.

He received the American Academy of Orthopedic Surgeons (AAOS) award for best ski injury research in 1973. He was a Faculty Exchange Participant in joint US-PRC (People's Republic of China) program February through May 1987. He taught and consulted with industry in the PRC in the areas of Ergonomics in Design and Manufacturing as well as Industrial Safety at the Shaanxi Institute of Mechanical Engineering, Xian, Shaanxi Province, People's Republic of China.

Membership In Scientific And Professional Societies

American Society of Safety Engineers (past member)
American Society for Testing and Materials
Human Factors and Ergonomics Society (past member)
Institute of Industrial Engineers (past member)
International Society for Skiing Safety
National Ski Patrol System (past member)
Rochester Engineering Society (past member)
Sigma Xi (past member)
Society of Manufacturing Engineers (past member)

Certified Professional Ergonomist (CPE)

Certificate No. 681, awarded 1994 by the Board of Certification in Professional Ergonomics

Professional Experience

Reviewer of professional papers and books for:

Human Factors and Ergonomics Journal
Physician and Sports Medicine
American Society of Mechanical Engineering
American Society of Safety Engineers
American Society for Testing and Materials
International Society for Skiing Safety
McGraw-Hill Publishers

Co-Editor of *Skiing Trauma and Safety: Twentieth Volume, ASTM STP XXX*, late 2014.

Co-Editor of *Skiing Trauma and Safety: Nineteenth Volume, ASTM STP 1553*, November 2012.

Co-Editor of *Skiing Trauma and Safety: Eighteenth Volume, ASTM STP 1525*, February 2011.

Co-Editor of *Skiing Trauma and Safety: Seventeenth Volume, ASTM STP 1510*, April 2009

Co-Editor of *Skiing Trauma and Safety: Sixteenth Volume, ASTM STP 1474*, October 2006.

Co-Editor of *Skiing Trauma and Safety: Fifteenth Volume, ASTM STP 1464*. July 2005.

Co-Editor of *Skiing Trauma and Safety: Fourteenth Volume, ASTM STP 1440*. May 2003.

Co-Editor of *Skiing Trauma and Safety: Thirteenth Volume, ASTM STP 1397*. December 2000.

Co-investigator from 1979 to the present, on the Sugarbush Ski Injury Research Project in conjunction with the Department of Orthopedics and Rehabilitation, at the University of Vermont, Burlington, VT.

Co-investigator at RIT from 1990 to 1999 on Institute and NY State Industrial Ergonomic projects.

Co-investigator at RIT on the IBM TQM University Challenge Grant, 1991-1994. This grant funded the initial phases of the MS in Manufacturing Management and Leadership.

Recipient of a National Science Foundation grant in 1989 for Laboratory Equipment that relates to the upgrading of the Human Factors/Ergonomics Laboratory in the Industrial and Manufacturing Engineering program in the College of Engineering.

Member (since 1973) American Society for Testing and Materials, Committee F-27 on Snow Skiing; currently Vice-Chairman of F-27 and Chair of the Statistics subcommittee (F27.60). Past Chair of the Main Committee and Ski Boot subcommittee (F27.70). Past co-chair of the ad hoc Task Force for the field study to verify the Shop Practices Standards. ASTM/ANSI Delegate to International Standards Organization (ISO) for Snow Skiing Standards.

Member of Board of Directors of International Society for Skiing Safety, member of Scientific Committee for Scientific Congresses, Parliamentarian for Board of Directors.

Professional Development Leave from RIT for the period of time from 12/1/96 through 3/1/97 to continue work in area of ski injury research in conjunction with the Department of Orthopedics and Rehabilitation, at the University of Vermont, Burlington, VT.

Invited Faculty Member or Keynote Speaker to:

National Ski Patrol Patroller Education Conference 2009, April 15-17, 2009, Snowbird, Utah. Invited guest speaker/faculty member on topic of current research topics in Alpine Injuries and Risks Associated with an Aging Skier Population.

18th International Congress on Ski Trauma, April 26 to May 2, 2009, Garmisch, Germany, sponsored by the *International Society for Skiing Safety* and the *American Society for Testing and Materials*. Topic: Analysis of Jumping Behavior on Tabletop jumping and Effects of Aging on Skiing Injuries

2nd World Congress on Sports Injury Prevention, June 25-29, 2008, Tromsø, Norway, Topic: A Review of key studies in the prevention of alpine skiing injuries.

Cutter's Camp '08. May 5-9, 2008, Mount Hood, Oregon. Topic: Engineering research on Tabletop jumping; relationship between jumper's takeoff speed and distance traveled.

XXVIII Biannual Congress of International Society for Skiing Traumatology and Winter Sports Medicine (ITEMSH). Held on 3-5 April 2008 at the European Cultural Center in Delphi, Greece. Topics included: Role of Helmets in mitigating head injury in skiing, engineering analyses of tabletop jumping and Releasable Snowboard bindings

17th International Congress on Ski Trauma, May 13-16, 2007, Aviemore, Scotland, sponsored by the *International Society for Skiing Safety* and the *American Society for Testing and Materials*. Topic: Engineering Analyses of Tabletop jumping.

1st World Sports Injury Research Conference, June 19-22, 2005, Holmenkollen. Olympic Conference Center, Oslo, Norway, Topic: The Role of Helmets in Mitigation of Serious and Fatal Head Injuries.

16th International Congress on Ski Trauma, April 17-23, 2005, Arai Mountain & Spa, Niigata, Japan, sponsored by the *International Society for Skiing Safety* and the *American Society for Testing and Materials*. Keynote address title: **"Safety Related Equipment Design: How skiing has become safer"**

15th International Congress on Ski Trauma, April 27 to May 5, 2003, St. Moritz, Switzerland, sponsored by the *International Society for Skiing Safety* and the *American Society for Testing and Materials*. Keynote address title: **"New and Modified National and International Standards; Results of the Tedious Work of Standardization Committees"**

14th International Congress on Ski Trauma, August 5-10, 2001, Queenstown, New Zealand, sponsored by the *International Society for Skiing Safety* and the *American Society for Testing and Materials*. Keynote address title: **"What Do We Know?"**

13th International Congress on Ski Trauma, May 2-8, 1999, Breuil Cervenia, Italy, sponsored by the *International Society for Skiing Safety* and the *American Society for Testing and Materials*. Keynote address title: **"Modalities of Death; Snowboarding and Skiing Differences, 1991/90 through 1998/99."**

12th International Congress on Ski Trauma, May 4-10, 1997, Chateau Whistler Resort, Whistler, British Columbia, Canada, sponsored by the *International Society for Skiing Safety* and the *American Society for Testing and Materials*. Keynote address titles: **"An Examination of Public Policy Concerning Helmets in Snow Sports,"** and **"Nine Years of Snowboarding Injuries at Sugarbush,"**

11th International Congress on Ski Trauma, April 23-29, 1995, Voss, Norway, sponsored by the *International Society for Skiing Safety* and the *American Society for Testing and Materials*. Keynote address title: **"Epidemiology of Snowboarding Injuries: 1988 to 1995."**

Maine Society of Orthopedic Surgeons, 7th annual winter meeting Lectured on ACL injury mechanisms, and helmets in skiing and snowboarding, Sugarloaf, ME, March 6-8, 1997.

New England Medical Association, Winter Sports Trauma Course, March 1996. Lectured on ski trauma statistics and injury mechanisms, with particular emphasis on Snowboard injuries.

American Academy of Orthopaedic Surgeons, Winter Sports Trauma Post Graduate Course; 1973 and 1985. Lectured on ski injury research, with emphasis on biomechanics of ski injuries and the role of ski equipment.

Ski Mechanics Workshop; 1978-1979. Lectured on topics of ski injury research, injury mechanisms and ASTM standards that relate to ski equipment.

Consumer Product Safety Commission; 1976. Designed and team taught a week long Human Factors training program for Senior Accident Investigators in Accident Reconstruction techniques, and how to construct data bases for accident/injury research purposes.

Consulting Clients

CALSPAN
City of Rochester, New York
Corning Glass
Crown Equipment Corporation
Cubco, Inc. (Sports Equipment)
Eastman Kodak
Fisher-Price Toys
General Motors
General Railway Signal
Hewlett-Packard

International Business Machines
Keystone Ski Area, Div. of Ralston Purina
Lange USA, Inc. (Sports Equipment)
Look Sports, Inc. (Sports Equipment)
Purolator
National Ski Areas Association
Sybron-Taylor
U.S. Consumer Product Safety Commission
Veteran's Administration, U.S. Govt.
Xerox

Publications

“Role of Helmets in Mitigation of Head Injuries: Epidemiologic Study of Head Injuries to Skiers”. Shealy, J. E., Johnson, R. J., and Ettlinger, C. F., *presented at the 20th International Conference on Skiing Trauma and Safety*. Conference was held at Bariloche, Patagonia, Argentina, August 4-10, 2013. Published in the Journal of ASTM International, STP 1582, January 12, 2015, ASTM International, 100 Barr Harbor Drive, PO Box C700, West Conshohocken, PA, and ASTM STP 1520, Eds. Robert J. Johnson, Jasper Shealy and Richard M. Greenwald, pages 22-36.

“Jumping Features at Ski Resorts: Good Risk Management?”. Shealy, J. E., Scher, Irving, Johnson, R. J., and Rice, J. A., *presented at the 20th International Conference on Skiing Trauma and Safety*. Conference was held at Bariloche, Patagonia, Argentina, August 4-10, 2013. Published in the Journal of ASTM International, STP 1582, January 12, 2015, ASTM International, 100 Barr Harbor Drive, PO Box C700, West Conshohocken, PA, and ASTM STP 1520, Eds. Robert J. Johnson, Jasper Shealy and Richard M. Greenwald, pages 37-50.

“Terrain Park Design: Would Limiting Equivalent Fall Height Reduce Spine Injuries?”. Scher, Irving, Shealy, J. E., Stephan, Lenka, Thomas, Reed, and Hoover, Ryan, *presented at the 20th International Conference on Skiing Trauma and Safety*. Conference was held at Bariloche, Patagonia, Argentina, August 4-10, 2013. Published in the Journal of ASTM International, STP 1582, January 12, 2015, ASTM International, 100 Barr Harbor Drive, PO Box C700, West Conshohocken, PA, and ASTM STP 1520, Eds. Robert J. Johnson, Jasper Shealy and Richard M. Greenwald, pages 72-90.

“2010/2011 NSAA 10-Year Interval Injury Study”. Shealy, J. E., Ettlinger, C. F., and Johnson, R. J., *presented at the 20th International Conference on Skiing Trauma and Safety*. Conference was held at Bariloche, Patagonia, Argentina, August 4-10, 2013. Published in the Journal of ASTM International, STP 1582, January 12, 2015, ASTM International, 100 Barr Harbor Drive, PO Box C700, West Conshohocken, PA, and ASTM STP 1520, Eds. Robert J. Johnson, Jasper Shealy and Richard M. Greenwald, pages 93-111.

“Snowboarding Injuries: trends Over Time and Comparisons With Alpine Skiing Injuries,” Kim, S., Endres, N., Johnson, R. J., Ettlinger, C. F., and Shealy, J. E., *American Journal of Sports Medicine*, Jan 20, 2012, doi: 10.1177/0363546511433279, 7 pages.

“Aging Trends in Alpine Skiing,” Shealy, J. E., Ettlinger, C. F., and Johnson, R. J., *presented at the 18th International Conference on Skiing Trauma and Safety*. Conference was held at Garmisch-Partenkirchen, Germany, April 26 – May 2, 2009. Published in the Journal of ASTM International, Vol. 7, No. 4, 2010, ASTM International, 100 Barr Harbor Drive, PO Box C700, West Conshohocken, PA, and ASTM STP 1520, Eds. Robert J. Johnson, Jasper Shealy and Viet Senner, pages 130-138.

“Retention Requirements for Alpine Ski Bindings,” Ettlinger, C. F., Dodge, D., Johnson, R. J., Shealy, J. E., and Sargent, M., *presented at the 18th International Conference on Skiing Trauma and Safety* Conference was held at Garmisch-Partenkirchen, Germany, April 26 – May 2, 2009. Published J. ASTM Intl., Vol. 7, No 6. Doi: 10.1520/JAI102978, and ASTM STP 1520, Eds. Robert J. Johnson, Jasper Shealy and Viet Senner, pages 3-31.

“Myths Concerning Alpine Skiing Injuries,” Johnson, R. J., Ettlinger, C. F., and Shealy, J. E., *presented at the 18th International Conference on Skiing Trauma and Safety*. Conference was held at Garmisch-Partenkirchen, Germany, April 26 – May 2, 2009.

“Jumper Kinematics on Terrain Park Jumps: Relationship between Takeoff Speed and Distance Traveled,” Shealy, J. E., Scher, I., Stephan, L., and Harley, E., and *presented at the 18th International Conference on Skiing Trauma and Safety*. Conference was held at Garmisch-Partenkirchen, Germany, April 26 – May 2, 2009. Published in the Journal of ASTM International, Vol. 7, No. 10, 2010, ASTM International, 100 Barr Harbor Drive, PO Box C700, West Conshohocken, PA, and ASTM STP 1520, Eds. Robert J. Johnson, Jasper Shealy and Viet Senner, pages 173-186.

“Reaction Time of Skiers and Snowboarders,” Harley, E., Scher, I., Stephan, L., Young, D., and Shealy, J. E., *presented at the 18th International Conference on Skiing Trauma and Safety*. Conference was held at Garmisch-Partenkirchen, Germany, April 26 – May 2, 2009. Published in the Journal of ASTM International, Vol. 7, No. 9, 2010, ASTM International, 100 Barr Harbor Drive, PO Box C700, West Conshohocken, PA, and ASTM STP 1520, Eds. Robert J. Johnson, Jasper Shealy and Viet Senner, pages 90-98.

“Do Helmets Decrease the Incidence of Death or Only Alter the Cause of Death?” Shealy, J. E., *presented at the 17th International Conference on Skiing Trauma and Safety*. Conference was held at Aviemore, Scotland; May 13-19, 2007. Published in the Journal of ASTM International, Vol. 5, No. 6, 2008, ASTM International, 100 Barr Harbor Drive, PO Box C700, West Conshohocken, PA, and ASTM STP 1510, Eds. Robert J. Johnson, Jasper Shealy and Michael Langran.

“A Review of Research Literature Relating to an Adjustable/Releasable Snowboard Binding” Shealy, J. E., *presented at the 17th International Conference on Skiing Trauma and Safety*. Conference was held at Aviemore, Scotland; May 13-19, 2007. Published in the Journal of ASTM International, Vol. 5, No. 6, 2008, ASTM International, 100 Barr Harbor Drive, PO Box C700, West Conshohocken, PA, and ASTM STP 1510, Eds. Robert J. Johnson, Jasper Shealy and Michael Langran.

“Update on Injury Trends in Alpine Skiing” Johnson, R. J., Ettlinger, C. F., and Shealy, J. E., *presented at the 17th International Conference on Skiing Trauma and Safety*. Conference was held at Aviemore, Scotland; May 13-19, 2007. Published in the Journal of ASTM International, Vol. 5, No. 6, 2008, ASTM International, 100 Barr Harbor Drive, PO Box C700, West Conshohocken, PA, 6 pages, and ASTM STP 1510, Eds. Robert J. Johnson, Jasper Shealy and Michael Langran.

“Tabletop Jumping: Engineering Analysis of Trajectory and Landing Impact” Shealy, J. E., and Stone, F., *presented at the 17th International Conference on Skiing Trauma and Safety*. Conference was held at Aviemore, Scotland; May 13-19, 2007. Published in the Journal of ASTM International, Vol. 5, No. 6, 2008, ASTM International, 100 Barr Harbor Drive, PO Box C700, West Conshohocken, PA.

“On-Piste Fatalities in Recreational Snow Sports in the U. S.,” Shealy, J. E., Ettlinger, C. F. and Johnson, R. J., *Skiing Trauma and Safety: Sixteenth Volume, ASTM STP 1474*, R. J. Johnson, J. E. Shealy, and T. Yamagishi, Eds., American Society for Testing and Materials, West Conshohocken, PA, 2006, pp. 27-34.

“Functional and Release Characteristics of Alpine Ski Equipment.,” Ettlinger, C. F., Johnson, R. J., and Shealy, J. E., *Skiing Trauma and Safety: Sixteenth Volume, ASTM STP 1474*, R. J. Johnson, J. E. Shealy, and T. Yamagishi, Eds., American Society for Testing and Materials, West Conshohocken, PA, 2006, pp. 65-74.

“How Fast Do Winter Sports Participants Travel on Alpine Slopes?” Shealy, J. E., Ettlinger, C. F. and Johnson, R. J. *Skiing Trauma and Safety: Fifteenth Volume, ASTM STP 1464*, R. J. Johnson, J. E. Shealy, and M. Georg Ahlbaumer, Eds., American Society for Testing and Materials, West Conshohocken, PA, 2005, pp. 59-66.

“Methods for improving the Efficiency of Alpine Ski Equipment Rental Operations,” Ettlinger, C. F. Shealy, J. E. and Johnson, R. J. *Skiing Trauma and Safety: Fifteenth Volume, ASTM STP 1464*, R. J. Johnson, J. E. Shealy, and M. Georg Ahlbaumer, Eds., American Society for Testing and Materials, West Conshohocken, PA, 2005, pp. 13-22.

“Using Signal Detection Theory as a Model to Evaluate Release/Retention Criteria in Alpine Skiing,” Shealy, J. E., Ettlinger, C. F. And Johnson, R. J., *Skiing Trauma and Safety: Fifteenth Volume, ASTM STP 1464*, R. J. Johnson, J. E. Shealy, and M. Georg Ahlbaumer, Eds., American Society for Testing and Materials, West Conshohocken, PA, 2005, pp. 1-12.

“A Method of Comparing Ski Related Injuries Among Studies,” Johnson, R. J., Ettlinger, C. F. and Shealy, J. E.; *Skiing Trauma and Safety: Fourteenth Volume, ASTM STP 1440*, R. J. Johnson, M. Lamont, and J. E. Shealy, Eds., American Society for Testing and Materials, West Conshohocken, PA, 2003, pp. 121-128.

“What Do We Know About Ski Injury Research that Relates Binding Function to Knee and Lower Leg Injuries?,” Shealy, J. E., Ettlinger, C. F. and Johnson, R. J.; *Skiing Trauma and Safety: Fourteenth Volume, ASTM STP 1440*, R.J. Johnson, M. Lamont, and J. E. Shealy, Eds., American Society for Testing and Materials, West Conshohocken, PA, 2003, pp. 36-52.

“Where Do We Go From Here,” Ettlinger, C. F., Johnson, R. J., and Shealy, J. E.; *Skiing Trauma and Safety: Fourteenth Volume, ASTM STP 1440*, R.J. Johnson, M. Lamont, and J. E. Shealy, Eds., American Society for Testing and Materials, West Conshohocken, PA, 2003, pp. 53-63.

“Head Injuries and Helmets in Alpine Sports,” Shealy, J. E., Ettlinger, C. F. and Johnson, R. J.; presented at the *14th International Conference on Skiing Trauma and Safety*. Conference was held at Queenstown, New Zealand from August 5-10, 2001

“Femur and Tibial Plateau Fractures in Alpine Skiing,” Shealy, J. E., Ettlinger, C. F. and Johnson, R. J.; *Skiing Trauma and Safety: Fourteenth Volume, ASTM STP 1440*, R.J. Johnson, M. Lamont, and J. E. Shealy, Eds., American Society for Testing and Materials, West Conshohocken, PA, 2003, pp. 140-148.

"Update on Injury Trends In Alpine Skiing," Johnson, R. J., Ettlinger, C. F. and Shealy, J. E.; *Skiing Trauma and Safety: Thirteenth Volume, ASTM STP 1397*, R.J. Johnson, P. Zucco, and J. E.. Shealy, Eds., American Society for Testing and Materials, West Conshohocken, PA, 2000, pp. 108-118.

"A Two Year Study of Ski boards," J. E. Shealy, C. F. Ettlinger and R. J. Johnson; *Skiing Trauma and Safety: Thirteenth Volume, ASTM STP 1397*, R.J. Johnson, P. Zucco, and J. E.. Shealy, Eds., American Society for Testing and Materials, West Conshohocken, PA, 2000, pp. 127-131.

"Rates and Modalities of Death; Snowboarding and Skiing Differences, 1991/92 through 1998/99," J. E. Shealy, C. F. Ettlinger, and R. J. Johnson; *Skiing Trauma and Safety: Thirteenth Volume, ASTM STP 1397*, R.J. Johnson, P. Zucco, and J. E.. Shealy, Eds., American Society for Testing and Materials, West Conshohocken, PA, 2000, pp. 132-138.

"Alpine Ski Bindings and Injuries: Current Findings," Natri, Antero, Beynnon, B. D., Ettlinger, C. F., Johnson, J. R., and Shealy, J. E., *Sports Medicine*, July 28, 1999 (1), pp. 35-48.

"Signal Detection Theory: A Model for Evaluating Release/Retention Criteria in Alpine Ski-Binding-Boot Systems," J.E. Shealy, C.F. Ettlinger, and R.J. Johnson; *Skiing Trauma and Safety: Twelfth Edition, ASTM STP 1345*, R.J. Johnson, Ed., American Society for Testing and Materials, West Conshohocken, PA, 1999, pp. 120-131.

"Skiing Injuries in Children, Adolescents, and Adults", M. C. Diebert, D. D. Aronsson, R. J. Johnson, C. F. Ettlinger, and J. E. Shealy, *The Journal of Bone and Joint Surgery*, January 1998, Vol. 80-A, No. 1, pp. 25-32.

"Impact of Super Sidecut Skis on the Epidemiology of Skiing Injuries," R. J. Johnson, C. F. Ettlinger, J. E. Shealy, and C. Meader, *Sportverletzung Sportschaden*, Heft 4, 11, Jahrgang, Dezember 1997, pp. 150-152.

"Skier Injury Trends: 1972-1994", R. J. Johnson, C. F. Ettlinger, and J. E. Shealy, *Skiing Trauma and Safety: Eleventh International Symposium, ASTM STP 1289*, R. J. Johnson, Ed., American Society for Testing and Materials, 1997, pp. 37-48.

"Epidemiology of Snowboarding Injuries: 1988 to 1995", J. E. Shealy, C. F. Ettlinger, and V. Buonomo, *Skiing Trauma and Safety: Eleventh International Symposium, ASTM STP 1289*, R. J. Johnson, Ed., American Society for Testing and Materials, 1997, pp. 49-59.

"Ski Injuries Among Ski Area Employees," Belanger, M., Ettlinger, C. F., R. J. Johnson, and J. E. Shealy, *Skiing Trauma and Safety: Tenth International Symposium, ASTM STP 1266*, C. D. Mote, R. J. Johnson, Wolfhart Hauser, and Peter S. Schaaf, Eds., American Society for Testing and Materials, 1996, pp. 25-35.

"Gender Related Injury Patterns in Snow Skiing", Shealy, J. E., and Ettlinger, C. F., *Skiing Trauma and Safety: Tenth International Symposium, ASTM STP 1266*, C. D. Mote, R. J. Johnson, Wolfhart Hauser, and Peter S. Schaaf, Eds., American Society for Testing and Materials, 1996, pp. 45-57.

"Death in Downhill Skiing from 1976 to 1992; A Retrospective View," Shealy, J. E., and Thomas, T., *Skiing Trauma and Safety: Tenth International Symposium, ASTM STP 1266*, C. D. Mote, R. J. Johnson, Wolfhart Hauser, and Peter S. Schaaf, Eds., American Society for Testing and Materials, 1996, pp. 66-72.

"Tibial Plateau Injuries in Snow Skiing," with R. J. Johnson, C. F. Ettlinger, and Ellowitz, A. S., *Skiing Trauma and Safety: Tenth International Symposium, ASTM STP 1266*, C. D. Mote, R. J. Johnson, Wolfhart Hauser, and Peter S. Schaaf, Eds., American Society for Testing and Materials, 1996, pp. 295-302.

"A Method to Help Reduce the Risk of Serious Knee Sprains in Alpine Skiing," C. F. Ettlinger, R. J. Johnson, and J. E. Shealy, *American Journal of Sports Medicine*. October, 1995, Vol. 23, No. 5, pp. 531-537

"Ski Injury Trends - 1972-1990" Johnson, J. R., Ettlinger, C. F. and Shealy, J. E.; *Ski Trauma and Skiing Safety: Ninth International Symposium, ASTM STP 1182*, Robert J. Johnson, C. D. Mote, Jr., and John Zelcer, Eds., American Society for Testing and Materials, Philadelphia, 1993, pp. 11-22.

"Comparison of Downhill Injury Patterns, 1978-81 vs. 1988-90" Shealy, J. E.; *Ski Trauma and Skiing Safety: Ninth International Symposium, ASTM STP 1182*, Robert J. Johnson, C. D. Mote, Jr., and John Zelcer, Eds., American Society for Testing and Materials, Philadelphia, 1993, pp. 23-32.

"Snowboard vs. Downhill Skiing Injuries," Shealy, J. E.; *Ski Trauma and Skiing Safety: Ninth International Symposium, ASTM STP 1182*, Robert J. Johnson, C. D. Mote, Jr., and John Zelcer, Eds., American Society for Testing and Materials, Philadelphia, 1993, pp. 241-254.

"Effects of Mass on Wrist Velocities and Accelerations", with Wende Latko; *Proceedings; Human Factors Society* 36th Annual meeting, October, 1992, Atlanta, GA.

"Biomechanical Analysis of Upper Extremity Risk in Sign Language Interpreting" with M. Feuerstein and Latko, *J of Occupational Rehabilitation*, Vol. 1, No. 3, 1991, pp. 215-223.

"Biomechanical Analysis Methodology for Sign Language Interpreting", Shealy, J. E., Feuerstein, M., Latko, W.; *Proceedings; Human Factors Society* 35th Annual Meeting, September 1991.

Physiological, Psychological and Cognitive Aspects of Human Performance, 7th Edition: Shealy, J. E., and J. Reynolds. (A laboratory manual/workbook for the Human Factors Laboratory of the Industrial Engineering Program) RIT, Rochester, New York. Copyrighted 1987, 1988, 1989, 1990, 1991, 1992, 1995

"Femoral Shaft Fractures Resulting from Alpine Skiing Injuries", Johnson, R. J., Ettlinger, C. F., and Shealy, J. E.; *Skiing Trauma and Safety: Eighth International Symposium, ASTM STP 1104*, C. D. Mote, Jr. and Robert J. Johnson, Eds., American Society for Testing and Materials, Philadelphia, 1991, pp. 152-157.

"A Relative Analysis of Downhill and Cross-Country Ski Injuries", Shealy, J. E. and Miller, D. A.; *Skiing Trauma and Safety: Eighth International Symposium, ASTM STP 1104*, C. D. Mote, Jr. and Robert J. Johnson, Eds., American Society for Testing and Materials, Philadelphia, 1991, pp. 133-143.

"Skier Injury Trends", Johnson, R. J., Ettlinger, C. F., and Shealy, J. E.; *Ski Trauma and Safety: Seventh International Symposium, ASTM STP 1022*. R. J. Johnson, C. D. Mote, M. H. Binet, Eds. American Society for Testing and Materials, Philadelphia, 1989, pp. 25-31.

"Snowboarding Injuries on Alpine Slopes", J. E. Shealy and P. D. Sundman; *Ski Trauma and Safety: Seventh International Symposium, ASTM STP 1022*. R. J. Johnson, C. D. Mote, M. H. Binet, Eds. American Society for Testing and Materials, Philadelphia, 1989, pp. 75-81.

"Dorsiflexion of the Human Ankle as it Relates to Ski Boot Design in Downhill Skiing," J. E. Shealy and D. A. Miller; *Ski Trauma and Safety: Seventh International Symposium, ASTM STP 1022*. R. J. Johnson, C. D. Mote, M. H. Binet, Eds. American Society for Testing and Materials, Philadelphia, 1989, pp. 146-152.

"The In-Boot Fracture," J. E. Shealy and C. F. Ettlinger; *Skiing Trauma and Safety: Sixth International Symposium, ASTM STP 938*, C. D. Mote, Jr. and R. J. Johnson, Eds., American Society for Testing and Materials, Philadelphia, 1987, pp. 113-126.

"Use of Statistics in Identifying Problems in Ski Injury Research," *Skiing Trauma and Safety: Fifth International Symposium, ASTM 860*, R. J. Johnson and C. D. Mote, Jr., Eds., American Society for Testing and Materials, Philadelphia, 1985, pp. 285-292.

"A Comparison of Downhill Injuries to Cross-Country Skiing Injuries," *Skiing Trauma and Safety: Fifth International Symposium, ASTM 860*, R. J. Johnson and C. D. Mote, Jr., Eds., American Society for Testing and Materials, Philadelphia, 1985, pp. 423-432.

"Overall Analysis of NSAA/ASTM Data on Skiing Injuries for 1978 Through 1981," *Skiing Trauma and Safety: Fifth International Symposium, ASTM 860*, R. J. Johnson and C. Mote, Jr., Eds., American Society for Testing and Materials, Philadelphia, 1985, pp. 302-313.

"Death in Downhill Skiing," *Skiing Trauma and Safety: Fifth International Symposium, ASTM 860*, R. J. Johnson and C. Mote, Jr., Eds., American Society for Testing and Materials, Philadelphia, 1985, pp. 349-357.

"Two Year Statistical Analysis of Skiing Injuries at 13 Selected Areas in the USA," *Ski Trauma and Skiing Safety IV*, W. Hauser, J. Karlsson, and M. Magi, Eds., TUV Bayern a. V., Munich, 1982, pp. 207-216.

"An Investigation of Ski Binding Settings Based Upon Minimum Retention Requirements," J. E. Shealy and C. F. Ettlinger, *Ski Trauma and Skiing Safety IV*, W. Hauser, J. Karlsson, and M. Magi, Eds., Technischer Überwachungs-Verein Bayern a. V., Munich, 1982, pp. 113-120.

"Theories of Accident Causation: Implications for Design," *Proceedings of the 23rd Annual Human Factors Society meeting*, 1979, Detroit, Michigan.

"Risk-taking in Manual Materials Handling," presented at the National Institute of Occupational Safety and Health International Symposium on Safety in Manual Materials Handling, July, 1978, Buffalo, New York. Published as a chapter in NIOSH *Manual Materials Handling*. US Government Printing Office, 1977.

"Role of Human Factors in a Manufacturing Environment," *Proceedings of the 1977 Spring Annual Conference of the American Institute of Industrial Engineers*, Dallas, Texas, 1977.

"ASTM Standards for Ski Binding Performance," *Proceedings of the 6th International Ergonomics Association Congress*, College Park, Maryland, July 1976.

"Analysis of OSHA Reportable Accident/Injury Statistics," Technical Report HF-76-28, Eastman Kodak, Kodak Park, New York, October 1976, 96 pages

"Effectiveness of Anti-Friction Devices in Snow Skiing as a Function of Years Use," *Proceedings of the 19th Annual Meeting of the Human Factors Society*, October 1975

"Epidemiology of Ski Injuries: Effect of Method of Skill Acquisition and Release Binding Values on Accident Rates," J. E. Shealy, L. H. Geyer, and R. Hayden, *Human Factors Journal*, Vol. 16, No. 5, 1974, pp. 459-473.

Statistical Analysis for Engineers, 500-page workbook to accompany a series of videotape presentations on Statistical Analysis. Rochester Institute of Technology, Rochester, New York, 1974.

"CALSPAN Technical Report YG-5238-K-1: Ski Binding Retention, a Comparative Study," Buffalo, New York, 1973, 35 pages.

"Ski Release Bindings: Comparison of Static Settings and Accident Rates in a Closed Population," *Proceedings: 17th Annual Meeting of the Human Factors Society*, 1973.

Presentations

"Skier Injury Trends - 1972-2012," Johnson, R., J., Ettlinger, C. F., and Shealy, J. E., *presented at the 20th International Conference on Skiing Trauma and Safety*. Conference was held at Bariloche, Patagonia, Argentina, August 4-10, 2013

"2010-2011 NSAA 10 Year Interval Study," Shealy, J. E., Scher, I. S., Johnson, R., J., Ettlinger, C. F., and Stepan, L., *presented at the 20th International Conference on Skiing Trauma and Safety*. Conference was held at Bariloche, Patagonia, Argentina, August 4-10, 2013

"Terrain Park Jump Design: Would Limiting Equivalent Fall Height Reduce Severe Injuries?" Scher, I. S., Shealy, J. E., Stepan, L., Thomas, R., and Hoover, R. *presented at the 20th International Conference on Skiing Trauma and Safety*. Conference was held at Bariloche, Patagonia, Argentina, August 4-10, 2013

"Factors Contributing to Severe Injury in Unsuccessful Jumps: Modeling Initial Ground Impact," Stepan, L., Scher, I. S., Shealy, J. E., Hoover, R., and Yang, S., *presented at the 20th International Conference on Skiing Trauma and Safety*. Conference was held at Bariloche, Patagonia, Argentina, August 4-10, 2013

"Functional and Release Characteristics of Alpine Ski Equipment 1997-2012," Ettlinger, C. F., Johnson, R., J., and Shealy, J. E., *presented at the 20th International Conference on Skiing Trauma and Safety*. Conference was held at Bariloche, Patagonia, Argentina, August 4-10, 2013

"Chairlift Unloading Success: Effects of Age and Equipment Type on Likelihood of Falling," Suderman, B., Harley, E., Stepan, L., Shealy, J. E., and Scher, I. S., *presented at the 20th International Conference on Skiing Trauma and Safety*. Conference was held at Bariloche, Patagonia, Argentina, August 4-10, 2013

“Ski and Snowboarding Deaths in the US: 1990-2012,” Shealy, J. E., Scher, I. S., Johnson, R., J., Ettlinger, C. F., Stepan, L., and Suderman, M.B., *presented at the 20th International Conference on Skiing Trauma and Safety*. Conference was held at Bariloche, Patagonia, Argentina, August 4-10, 2013.

“Jumping Features at Ski Resorts: Good Risk Management or Not?” Shealy, J. E., Scher, I. S., Johnson, R., J., *presented at the 19th International Conference on Skiing Trauma and Safety*. Conference was held at Keystone Resort, Colorado, USA, May 1-7, 2011.

“Skier Injury Trends: 1972 to 2010,” Johnson, R. J., Ettlinger, C. F., and Shealy, J. E., *presented at the 19th International Conference on Skiing Trauma and Safety*. Conference was held at Keystone Resort, Colorado, USA, May 1-7, 2011.

“The Role of Helmets in Mitigation of Head Injuries: Case/Control Study,” Shealy, J. E., Johnson, R. J., and Ettlinger, C. F., *presented at the 19th International Conference on Skiing Trauma and Safety*. Conference was held at Keystone Resort, Colorado, USA, May 1-7, 2011.

“Rental and Fleet Helmets: Examining Multiple Impacts,” Scher, I. S., Stepan, L., Shealy, J. E., and Thomas, R., *presented at the 19th International Conference on Skiing Trauma and Safety*. Conference was held at Keystone Resort, Colorado, USA, May 1-7, 2011.

“Landing Distance Measurements and Modeling of Terrain Park Jumps,” Scher, I. S., Shealy, J. E., and Stepan, L., *presented at the 19th International Conference on Skiing Trauma and Safety*. Conference was held at Keystone Resort, Colorado, USA, May 1-7, 2011.

“Aging Trends in Alpine Skiing,” Shealy, J. E., Ettlinger, C. F., and Johnson, R. J., *presented at the 18th International Conference on Skiing Trauma and Safety*. Conference was held at Garmisch-Partenkirchen, Germany, April 26 – May 2, 2009.

“Wrist Fractures in Alpine Winter Sports: An Analysis of 34 Seasons,” Patton, C., Johnson, R. J., Ettlinger, C. F., Beynnon, B. D., and Shealy, J. E., *presented at the 18th International Conference on Skiing Trauma and Safety*. Conference was held at Garmisch-Partenkirchen, Germany, April 26 – May 2, 2009.

“Myths Concerning Alpine Skiing Injuries,” Johnson, R. J., Ettlinger, C. F., and Shealy, J. E., *presented at the 18th International Conference on Skiing Trauma and Safety*. Conference was held at Garmisch-Partenkirchen, Germany, April 26 – May 2, 2009.

“Relationship between Distances Obtained while Jumping versus Takeoff Speed and Equipment Used,” Shealy, J. E., Scher, I., Stephan, L., and Harley, E., *presented at the 18th International Conference on Skiing Trauma and Safety*. Conference was held at Garmisch-Partenkirchen, Germany, April 26 – May 2, 2009.

“Unconstrained Speeds of Skiers and Snowboarders: Factors Influencing the In-Run of a Table-Top Jump,” Scher, I., Shealy, J. E., and Stephan, L., *presented at the 18th International Conference on Skiing Trauma and Safety*. Conference was held at Garmisch-Partenkirchen, Germany, April 26 – May 2, 2009.

“Reaction Time of Skiers and Snowboarders,” Harley, E., Scher, I., Young, D., and Shealy, J. E., *presented at the 18th International Conference on Skiing Trauma and Safety*. Conference was held at Garmisch-Partenkirchen, Germany, April 26 – May 2, 2009

“Do Helmets Decrease the Incidence of Death or Only Alter the Cause of Death?” Shealy, J. E., *presented at the 17th International Conference on Skiing Trauma and Safety*. Conference was held at Aviemore, Scotland; May 13-19, 2007.

“A Review of Research Literature Relating to an Adjustable/Releasable Snowboard Binding” Shealy, J. E., *presented at the 17th International Conference on Skiing Trauma and Safety*. Conference was held at Aviemore, Scotland; May 13-19, 2007.

“Update on Injury Trends in Alpine Skiing” Johnson, R. J., Ettlinger, C. F., and Shealy, J. E., *presented at the 17th International Conference on Skiing Trauma and Safety*. Conference was held at Aviemore, Scotland; May 13-19, 2007.

“Tabletop Jumping: Engineering Analysis of Trajectory and Landing Impact” Shealy, J. E., and Stone, F., *presented at the 17th International Conference on Skiing Trauma and Safety*. Conference was held at Aviemore, Scotland; May 13-19, 2007.

“ The Role of Helmets in Mitigation of Serious and Fatal Head Injuries” (invited presentation) Shealy, J. E., **1st World Sports Injury Research Conference**, Holmenkollen Olympic Conference Center, Oslo, Norway, June 19-22, 2005

“On-Piste Fatalities in Recreational Snow Sports in the U. S.,” Shealy, J. E., Ettlinger, C. F. and Johnson, R. J., *presented at the 16th International Conference on Skiing Trauma and Safety*. Conference was held at Niigata, Japan; April 17-23, 2005.

“Functional and Release Characteristics of Alpine Ski Equipment,” Ettlinger, C. F., Johnson, R. J., and Shealy, J. E., *presented at the 16th International Conference on Skiing Trauma and Safety*. Conference was held at Niigata, Japan; April 17-23, 2005.

“Safety Related Equipment Design: How skiing has become safer” (keynote address) Shealy, J. E., *presented at the 16th International Conference on Skiing Trauma and Safety*. Conference was held at Arai Mountain and Spa, Niigata, Japan from April 17-23, 2005.

“Head Trauma and Helmet Usage in Recreational Skiing,” Shealy, J. E., Ettlinger, C. F. and Johnson, R. J., *presented at the 16th International Conference on Skiing Trauma and Safety*. Conference was held at Arai Mountain and Spa, Niigata, Japan from April 17-23, 2005.

“Injury Trend and Risk Factors Involving ACL Injuries in Alpine Skiing,” Johnson, R. J., Shealy, J. E., and Ettlinger, C. F., *presented at the 16th International Conference on Skiing Trauma and Safety*. Conference was held at Arai Mountain and Spa, Niigata, Japan from April 17-23, 2005.

“Skier Injury Trends- a 30 Year Investigation,” Johnson, R. J., Ettlinger, C. F. and Shealy, J. E.; *presented at the 15th International Conference on Skiing Trauma and Safety*. Conference was held at St. Moritz, Switzerland from April 27 to May 5, 2003. Conference was held at St. Moritz, Switzerland from April 27 to May 5, 2003.

“New and Modified National and International Standards- Results of Tedious Work of Standardization Committees,” Shealy, J. E., and Otto Harsanyi, *presented at the 15th International Conference on Skiing Trauma and Safety*. Conference was held at St. Moritz, Switzerland from April 27 to May 5, 2003.

“Ski and Snowboard Injuries in 2000/01 in the United States,” Shealy, J. E., Ettlinger, C. F. and Johnson, R. J., *presented at the 15th International Conference on Skiing Trauma and Safety*. Conference was held at St. Moritz, Switzerland from April 27 to May 5, 2003.

“How Fast Do Winter Sports Participants Travel on Alpine Slopes?” Shealy, J. E., Ettlinger, C. F. and Johnson, R. J. *presented at the 15th International Conference on Skiing Trauma and Safety*. Conference was held at St. Moritz, Switzerland from April 27 to May 5, 2003.

“Methods for improving the Efficiency of Alpine Ski Equipment Rental Operations,” Ettlinger, C. F. Shealy, J. E. and Johnson, R. J. *presented at the 15th International Conference on Skiing Trauma and Safety*. Conference was held at St. Moritz, Switzerland from April 27 to May 5, 2003.

“Release Characteristics of Alpine Ski Equipment Associated with Lower Extremity Injuries,” Shealy, J. E., Ettlinger, C. F. And Johnson, R. J., *presented at the 15th International Conference on Skiing Trauma and Safety*. Conference was held at St. Moritz, Switzerland from April 27 to May 5, 2003.

“Using Signal Detection Theory as a Model to Evaluate Release/Retention Criteria in Alpine Skiing,” Shealy, J. E., Ettlinger, C. F. And Johnson, R. J., *presented at the 15th International Conference on Skiing Trauma and Safety*. Conference was held at St. Moritz, Switzerland from April 27 to May 5, 2003.

“A Method of Comparing Ski Related Injuries Among Studies,” Johnson, R. J., Ettlinger, C. F. and Shealy, J. E.; *Skiing Trauma and Safety: Fourteenth Volume, ASTM STP 1440*, R. J. Johnson, M. Lamont, and J. E. Shealy, Eds., American Society for Testing and Materials, West Conshohocken, PA, 2003, pp. 121-128.

“A 29 Year Study of Collision Injuries at Sugarbush,” Eun, S. P., Johnson, R. J., Ettlinger, C. F. and Shealy, J. E.; *presented at the 14th International Conference on Skiing Trauma and Safety*. Conference was held at Queenstown, New Zealand from August 5-10, 2001

“What Do We Know About Ski Injury Research that Relates Binding Function to Knee and Lower Leg Injuries?,” Shealy, J. E., Ettlinger, C. F. and Johnson, R. J.; *presented at the 14th International Conference on Skiing Trauma and Safety*. Conference was held at Queenstown, New Zealand from August 5-10, 2001.

“Where Do We Go From Here,” Ettlinger, C. F., Johnson, R. J., and Shealy, J. E.; *Skiing presented at the 14th International Conference on Skiing Trauma and Safety*. Conference was held at Queenstown, New Zealand from August 5-10, 2001.

“Head Injuries and Helmets in Alpine Sports,” Shealy, J. E., Ettlinger, C. F. and Johnson, R. J.; *presented at the 14th International Conference on Skiing Trauma and Safety*. Conference was held at Queenstown, New Zealand from August 5-10, 2001

"Femur and Tibial Plateau Fractures in Alpine Skiing," Shealy, J. E., Ettlinger, C. F. and Johnson, R. J.; presented at the *14th International Conference on Skiing Trauma and Safety*. Conference was held at Queenstown, New Zealand from August 5-10, 2001.

"Update on Injury Trends In Alpine Skiing," Johnson, R. J., Ettlinger, C. F. and Shealy, J. E.; *Skiing Trauma and Safety: Thirteenth Volume, ASTM STP 1397*, R.J. Johnson, P. Zucco, and J. E. Shealy, Eds., American Society for Testing and Materials, West Conshohocken, PA, 2000, pp. 108-118.

"A Two Year Study of Ski boards," J. E. Shealy, C. F. Ettlinger and R. J. Johnson; presented at the *13th International Conference on Skiing Trauma and Safety*. Conference was held at Breuil Cervinia, Aosta Valley, Italy from May 2-8, 1999.

"Rates and Modalities of Death; Snowboarding and Skiing Differences, 1991/92 through 1998/99," J. E. Shealy, C. F. Ettlinger, and R. J. Johnson; presented at the *13th International Conference on Skiing Trauma and Safety*. Conference was held at Breuil Cervinia, Aosta Valley, Italy from May 2-8, 1999.

"A Three Year Study of Shaped Skis," R. J. Johnson, A. Natri, J. E. Shealy, and C. F. Ettlinger, presented at the 13th International Congress on Ski Trauma, May 2-8, 1999, Breuil Cervinia, Italy.

"Analysis of Falls in Alpine Skiing," C. F. Ettlinger, J. E. Shealy, and R. J. Johnson, presented at the 13th International Congress on Ski Trauma, May 2-8, 1999, Breuil Cervinia, Italy.

"Signal Detection Theory: A Model for Evaluating Release/Retention Criteria in Alpine Ski-Binding-Boot Systems," J.E. Shealy, C.F. Ettlinger, and R.J. Johnson; presented at the Twelfth International Symposium on Ski Trauma & Skiing Safety, May 4-10, 1997 Whistler, British Columbia, Canada.

"Nine Years of Snowboarding Injuries at Sugarbush," J. E. Shealy, R. J. Johnson, and C. F. Ettlinger; keynote address presented at the Twelfth International Symposium on Ski Trauma & Skiing Safety, May 4-10, 1997 Whistler, British Columbia, Canada.

"Fall Classification Study," C. F. Ettlinger, C. Meader, R. J. Johnson, and J. E. Shealy; paper presented at the Twelfth International Symposium on Ski Trauma & Skiing Safety, May 4-10, 1997 Whistler, B. C., Canada.

"Video Analysis of Falls and Reliability Study," C. F. Ettlinger, J. E. Shealy, R. J. Johnson, and C. Meader; paper presented at the Twelfth International Symposium on Ski Trauma & Skiing Safety, May 4-10, 1997 Whistler, British Columbia, Canada.

"Experimental Design- A Study to Investigate the Feasibility of Asymmetrical Characteristics of Alpine Bindings," C. F. Ettlinger, J. E. Shealy, R. J. Johnson, and B. Beynnon; paper presented at the Twelfth International Symposium on Ski Trauma & Skiing Safety, May 4-10, 1997 Whistler, British Columbia, Canada.

"An Examination of Public Policy Concerning Helmets in Snow Sports," J. E. Shealy, R. J. Johnson, C. F. Ettlinger, and L. Ruskin; keynote address presented at the Twelfth International Symposium on Ski Trauma & Skiing Safety, May 4-10, 1997 Whistler, British Columbia, Canada.

"Twenty-five years of Skiing Injury Epidemiology," R. J. Johnson, C. F. Ettlinger, and J. E. Shealy; keynote address presented at the Twelfth International Symposium on Ski Trauma & Skiing Safety, May 4-10, 1997 Whistler, British Columbia, Canada.

"Impact of Shaped Skis on the Epidemiology of Skiing Injuries," R. J. Johnson, C. F. Ettlinger, and J. E. Shealy; paper presented at the Twelfth International Symposium on Ski Trauma & Skiing Safety, May 4-10, 1997 Whistler, British Columbia, Canada.

"Latest Developments in the Investigation of Knee Injury Mechanisms in Alpine Skiing," C. F. Ettlinger, J. E. Shealy and R. J. Johnson; paper presented at the Twelfth International Symposium on Ski Trauma & Skiing Safety, May 4-10, 1997 Whistler, British Columbia, Canada.

"Video Analysis of ACL Injuries and Reliability Study," C. F. Ettlinger, R. J. Johnson, J. E. Shealy, and, C. Meader; paper presented at the Twelfth International Symposium on Ski Trauma & Skiing Safety, May 4-10, 1997 Whistler, British Columbia, Canada.

"ACL Awareness Training- Five Year Report," R. J. Johnson, C. F. Ettlinger, and J. E. Shealy; paper presented at the Twelfth International Symposium on Ski Trauma & Skiing Safety, May 4-10, 1997 Whistler, British Columbia, Canada.

"Skier Injury Trends: 1972-1994," R. J. Johnson, C. F. Ettlinger, and J. E. Shealy, *Skiing Trauma and Safety*: presented at the Eleventh International Symposium on Ski Trauma & Skiing Safety, April 23-29, 1995 at Voss, Norway.

"Epidemiology of Snowboarding Injuries: 1988 to 1995," J. E. Shealy, C. F. Ettlinger, and V. Buonomo, : presented at the Eleventh International Symposium on Ski Trauma & Skiing Safety, April 23-29, 1995 at Voss, Norway.

"The effects of Complex Forearm Posture on Wrist Range of Motion," Marshall, M. M., Mozrall, J. R., and Shealy, J. E., presented at the 41st Annual Meeting of the Human Factors and Ergonomics Society, Albuquerque, NM, 1997.

"Range of Motion for Complex wrist Movements," Marshall, M. M., Mozrall, J. R., and Shealy, J. E., presented at the 6th Annual Industrial Engineering Research Conference, Miami Beach, FL, 1997.

"Ski Injuries Among Ski Area Employees," Belanger, M., Ettlinger, C. F., R. J. Johnson, and J. E. Shealy, presented at the Tenth International Symposium on Ski Trauma & Skiing Safety, May 17-21 1993 at Zell am See, Austria.

"Gender Related Injury Patterns in Snow Skiing", Shealy, J. E., and Ettlinger, C. F., presented at the Tenth International Symposium on Ski Trauma & Skiing Safety, May 17-21 1993 at Zell am See, Austria.

"Death in Downhill Skiing from 1976 to 1992; A Retrospective View," Shealy, J. E., and Thomas, T., presented at the Tenth International Symposium on Ski Trauma & Skiing Safety, May 17-21 1993 at Zell am See, Austria.

"Tibial Plateau Injuries in Snow Skiing," with R. J. Johnson, C. F. Ettlinger, and Ellowitz, A. S., presented at the Tenth International Symposium on Ski Trauma & Skiing Safety, May 17-21 1993 at Zell am See, Austria.

"Helmets for Recreational Skiers and Snowboarders: An Idea Whose Time has come?" with C. F. Ettlinger, presented at the August 1995 F27 meeting in Burlington, VT

"Gender and Age Related Skiing Injury Patterns", with R. J. Johnson, and C. F. Ettlinger, presented at the Eleventh International World Congress of the International Society for Skiing Safety, Voss, Norway, April 1995.

"Snowboarding Injuries", with B. Huber, D. L. Beskind, R. J. Johnson, and C. F. Ettlinger, presented at the Eleventh International World Congress of the International Society for Skiing Safety, Voss, Norway, April 1995.

"Knee Injuries and Ski Equipment Factors", with C. F. Ettlinger and R. J. Johnson, presented at the Eleventh International World Congress of the International Society for Skiing Safety, Voss, Norway, April 23-29, 1995.

"Reduction of the Risk of Serious Knee Sprain in Alpine Skiing Through Skier Education", with R. J. Johnson, and C. F. Ettlinger, presented at the Eleventh International World Congress of the International Society for Skiing Safety, Voss, Norway, April 23-29, 1995.

"ACL Awareness Education for the Recreational Skier", with R. J. Johnson, and C. F. Ettlinger, presented at the Eleventh International World Congress of the ISSS, Voss, Norway, April 23-29, 1995.

"Effects of Age and Gender on Human Bone Strength and its Relevance to Snow Skiing and Snow Skiing Standards," with Peter Kogut, MD, presented at the Tenth International World Congress of the ISSS, Zell am See, Austria, May 17-21, 1993.

"Skier Injury Trends: 1972-1992," with Robert Johnson, and Carl Ettlinger, presented at the Tenth International World Congress of the ISSS, Zell am See, Austria, May 17-21, 1993.

"Ski Injury Trends - 1972-1990" Johnson, J. R., Ettlinger, C. F. and Shealy, J. E.; presented at the Ninth International Symposium on Ski Trauma & Skiing Safety, June 16-22, 1991 at Threadbo, NSW, Australia.

"Comparison of Downhill Injury Patterns, 1978-81 vs. 1988-90" Shealy, J. E.; presented at the Ninth International Symposium on Ski Trauma & Skiing Safety, June 16-22, 1991 at Threadbo, NSW, Australia.

"Snowboard vs. Downhill Skiing Injuries," Shealy, J. E.; presented at the Ninth International Symposium on Ski Trauma & Skiing Safety, June 16-22, 1991 at Threadbo, NSW, Australia.

"Knee Injuries in Skiing," J. E. Shealy, presentation to the Main Committee of ASTM F27 March 1993 Las Vegas, NV semiannual meeting.

"Ergonomics of Materials Handling using Overhead Bridge Cranes", with Wendy Stibitz; Presented at the *Materials Handling Institute* Annual Meeting, February 1993, Chicago, Illinois.

"What motivates Workers to do Things that are Unsafe?" Invited keynote speaker to Ryder Corporate Annual Safety Conference, December 1992, Miami, Florida.

"Effects of Mass on Wrist Velocities and Accelerations", with Wende Latko; presented at the *Human Factors Society* 36th Annual meeting, October, 1992, Atlanta, GA.

"Biomechanical Analysis Methodology for Sign Language Interpreting", Shealy, J. E., Feuerstein, M., Latko, W.; presented at the *Human Factors Society* 35th Annual Meeting, September 1991.

"Femoral Shaft Fractures Resulting from Alpine Skiing Injuries", Johnson, R. J., Ettlinger, C. F., and Shealy, J. E.; presented at the Eighth International Symposium on Ski Trauma & Skiing Safety, May 15-21, 1989 at Riksgrasen, Sweden.

"A Relative Analysis of Downhill and Cross-Country Ski Injuries", Shealy, J. E. and Miller, D. A.; presented at the Eighth International Symposium on Ski Trauma & Skiing Safety, May 15-21, 1989 at Riksgrasen, Sweden.

"Skier Injury Trends", Johnson, R. J., Ettlinger, C. F., and Shealy, J. E.; presented at the Seventh International Symposium on Ski Trauma & Skiing Safety, May 11-15, 1987 at Chamonix, France.

"Snowboarding Injuries on Alpine Slopes", J. E. Shealy and P. D. Sundman presented at the Seventh International Symposium on Ski Trauma & Skiing Safety, May 11-15, 1987 at Chamonix, France.

"Dorsiflexion of the Human Ankle as it Relates to Ski Boot Design in Downhill Skiing," J. E. Shealy and D. A. Miller; presented at the Seventh International Symposium on Ski Trauma & Skiing Safety, May 11-15, 1987 at Chamonix, France.

"The In-Boot Fracture," J. E. Shealy and C. F. Ettlinger; presented at the Sixth International Symposium on Ski Trauma & Skiing Safety, April 22-27, 1985 at Naeba, Japan.

"Knee Injuries in Downhill Skiing; A Review of the Scientific Literature," presented at the Spring Meeting of ASTM F27 Ski Equipment Standards Committee, March 1986, Las Vegas, NV

"Analysis of Cross-Country Skiing Injuries from a Systems Perspective," presented at the Spring Meeting of ASTM F27 Ski Equipment Standards Committee, March 13, 1985, Las Vegas, NV

"Causes of Death in Down-Hill Skiing," presented to the American Academy of Orthopaedic Surgeons Winter Sports Injuries Course, March 4-8, 1985, Sun Valley, ID

"Use of Statistics in Identifying Problems in Ski Injury Research," presented at the Fifth International Symposium on Ski Trauma & Skiing Safety, May 1-6, 1985 at Keystone, Colorado.

"A Comparison of Downhill Injuries to Cross-Country Skiing Injuries," presented at the Fifth International Symposium on Ski Trauma & Skiing Safety, May 1-6, 1985 at Keystone, Colorado.

"Overall Analysis of NSAA/ASTM Data on Skiing Injuries for 1978 Through 1981," presented at the Fifth International Symposium on Ski Trauma & Skiing Safety, May 1-6, 1985 at Keystone, Colorado.

"Death in Downhill Skiing," presented at the Fifth International Symposium on Ski Trauma & Skiing Safety, May 1-6, 1985 at Keystone, Colorado.

"Analysis of Accidents as a Means of Generating Effective Intervention Strategies in Hazardous Situations," invited paper at the International Business Machines Corporate Occupational Ergonomics Symposium, August 27-30, 1984, Boulder, CO.

Task Analysis as a means of generating training schemes, designing workplaces and identifying/analyzing accidents. Invited presentation at the International Conference on Occupational Ergonomics, sponsored by the International Ergonomics Association, May 8, 1984, Toronto, Canada.

Techniques of Accident Reconstruction in determination of contributing factors in accident causation. Invited presentation to the 1983 Annual Meeting of the New York Society of Professional Engineers.

"Two Year Statistical Analysis of Skiing Injuries at 13 Selected Areas in the USA," presented at the Fourth International Symposium on Ski Trauma & Skiing Safety, May 1-6, 1981 at Bormio, Italy.

"An Investigation of Ski Binding Settings Based Upon Minimum Retention Requirements," J. E. Shealy and C. F. Ettlinger, presented at the Fourth International Symposium on Ski Trauma & Skiing Safety, May 1-6, 1981 at Bormio, Italy.

An Ergonomic Analysis of an Assembly Line (2300 line) Tech Report; Xerox, Webster, NY, January 1980

"Theories of Accident Causation," presented at the 1979 SAE Congress, Cobo Hall, Detroit, MI. March 1980

"The Effect of Theories of Accident Causation on Accident Data Base Formations," presented at the 1979 Annual Meeting of the American Society of Safety Engineers, San Francisco, CA.

"Theories of Accident Causation: Implications for Design," presented at the *23rd Annual Human Factors Society* meeting, 1979, Detroit, Michigan.

"Risk-taking in Manual Materials Handling," presented at the National Institute of Occupational Safety and Health International Symposium on Safety in Manual Materials Handling, July, 1978, Buffalo, New York.

"Role of Human Factors in a Manufacturing Environment," presented at the *1977 Spring Annual Conference of the American Institute of Industrial Engineers*, Dallas, Texas, 1977.

"ASTM Standards for Ski Binding Performance," presented at the *6th International Ergonomics Association Congress*, College Park, Maryland, July 1976.

"Effectiveness of Anti-Friction Devices in Snow Skiing as a Function of Years Use," presented at the *19th Annual Meeting of the Human Factors Society*, October 1975.

"Effects of Static Settings on Binding Function," presented at the August 1975 meeting of the ASTM F8.14 subcommittee for Ski Equipment Standards, Las Vegas, Nevada

"Statistical Standards for Ski Injury Studies," presented at the March 1974 meeting of the ASTM F8.14 subcommittee for Ski Equipment Standards

"Ski Release Bindings: Comparison of Static Settings and Accident Rates in a Closed Population," presented at the *17th Annual Meeting of the Human Factors Society*, 1973.