

RESUME

April 2004

JAY T. KEARNEY

Clinical and Scientific Advisory
HealthTech, Inc.
523 Park Point Dr
Golden, CO 80401
Office: (303) 526-5085
Home office: (719) 633-1923
Fax: (719) 633-1923
E-mail: <jtkearney@healthtech.com>
Cell phone (720) 209-7700

Kearney Consulting
Performance and Technology Optimization
1819 North Cascade Ave
Colorado Springs, CO 80907
Home office (719) 633-1923
E-mail: <jtkearney@healthtech.com>
Cell phone (720) 209-7700

EDUCATION

Ph.D. - University of Maryland, 1972 – Exercise physiology; M.S. - University of Maryland, 1969, Exercise physiology; B.S. - State University of New York, 1966; Major: Health and Physical Education Minor: Biological Sciences

EMPLOYMENT

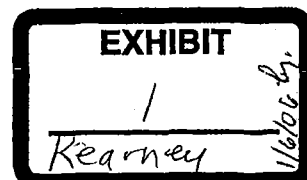
**11/2003 – Present Clinical and Scientific Advisor
HealthTech, Inc.**

Serving as a special assistant to the President, the responsibilities of this 50% commitment include: coordination of the design and implementation of HETC sponsored research programs in the validation of technology and software and research trials designed to demonstrate the efficacy of HETC tools and technology; assistance with internal research, development and product evaluation; analyze and summarize literature supportive to business development; provide leadership advice and expertise to Clinical Affairs; assist in the development and delivery of education and training; and serve as a subject matter resource for the company leadership and Sales and Marketing.

Kearney Consulting

Kearney Consulting is focused on the optimization of individuals, organizations and technology through research, knowledge and application. Clients are served by the development and implementation of programs based on the principal's expertise and experience in: academic exercise physiology, research design, application of science and technology to sport, competitive and coaching experience, and leadership and administrative background.

Recent projects include: development of a sports science and technology package for proposed swim flume in China, equipment and technology evaluation, application of altitude training technology and paradigms, and concept and program design for Human Performance Center.



9/2000 – 11/2003

**Vice President, Clinical Affairs
HealthTech, Inc.**

Responsible for the planning and implementation of clinical trials to validate the technical and customer application components of Healthtech products. This requires cooperation with product design engineers, research scientists, clinical advisors, and sales and marketing. The goal is to develop, validate, market, and support the use of technologies and an array of information technology platforms to allow users to make better health, fitness, and medical decisions.

7/1/92 – 9/2000

**Senior Sports Physiologist
Sports Science and Technology Division**

Responsible for the integration of testing and evaluation aspects of sports physiology into the interdisciplinary approach to sustained competitive excellence being pursued by the Division. This requires coordination of the activities of the research assistants and interaction with athletes, coaches and NGB administrators.

Division representative on PODIUM (Partnering Olympic Development Into Utah Medals) and staff liaison for Nordic Combined, Biathlon, and Speedskating. This project involves developing and fostering a partner relationship among the NGB, coaches and athletes, and USOC that will allow supplemental USOC funding to be focused on projects designed to increase medal productivity in SLC 2002. Actively involved in several major projects including: evaluating the safety and efficacy of simulated altitude environments, issues associated with effective talent identification and development issues, and researching the characteristics of successful international programs for endurance development. Member of the High Performance Summit team.

7/1/92 - 2000

**Adjunct Staff
Center for Creative Leadership**

Lecturing and practical presentations relative to the role of health and fitness in corporate leadership. The clients for the Leadership at the Peak courses are upper level management/leaders from major US and international corporations.

**University of Colorado - Boulder
University of Colorado - Colorado Springs**

Primary responsibilities related to involvement in thesis research projects.

1989 - 1992

**Director Sports Science Division
United States Olympic Training Center**

The mission of the Division is to provide information and sports science services to elite coaches

and athletes that will assist them in optimizing performance. As Director, my role was to provide leadership for these multi-disciplinary efforts by departments of sports biomechanics, computer science, engineering technology, sports physiology and sport psychology.

Responsibilities included: Coordinating efforts of a staff of 25 in design, development, implementation and evaluation of sports science programs; articulating and advocating the role of sports science within the USOC family; effectively communicating the needs of the Division within the USOC administrative structure; coordinating the administration of two grant programs (500K/yr); serving as a spokesperson for sports science with the media; and routine administrative responsibilities, such as, budget (1.25 M/yr.), personnel matters, etc.

**1986 - 1989 Head Sports Physiology Department
United States Olympic Training Center**

Responsible for coordinating the delivery of broad range of testing and educational services to athletes to allow them to: determine physiological condition, monitor training status, and develop optimal training regimens. Worked with NGBs and other constituencies in the USOC to promote the use and application of sports physiology. Initiated the USOC sports science coaches' colleges.

**1984 - 1986 Full Department of Health, Physical Education,
Professor Recreation and Dance University of Kentucky**

Promoted to Full Professor in 1983. Full-time teaching and direction of research laboratory in HPR and serving as a thesis and dissertation advisor. Team taught medical physiology in University of Kentucky College of Medicine and held a joint appointment in Physical Therapy.

**1977 - 1983 Director Graduate Studies/Departmental Chairperson
University of Kentucky**

Promoted to Associate Professor in 1977. Director of Graduate Studies (1977-1981); Administrative Advisory Committee (1977-1984); Social Sciences Review Panel of Graduate School (1977-1979), and College of Education Graduate Admissions and Standards Committee. Received College of Education Exceptional Achievement Award in Research and Scholarship, 1978. Acting Chairperson (1981-1982); Chairperson (1982-1983). Institutional Self-Study Committee on Research (1980-1982). College Administrative Council (1981-1983).

**1974 - 1977 Assistant Research Laboratories, HPERD
Professor University of Kentucky**

Assistant Professor and Director of Research Laboratories in HPERD. Responsibilities: Undergraduate and graduate teaching; developmental direction and coordination of usage of laboratories; advise and direct thesis projects. Member of following committees: Service Course Committee (1974-1975); Honor Awards Committee, Lavain Lewis Scholarship Committee (1975-1976); Undergraduate Physical Education Majors Curriculum Committee (Chairman

1975-1977); Search Committee for Chairperson of HPER Department (Chairman 1975-1976); Non-Medical Sciences and Professions Human Investigations and Studies Sub-Committee (1975-1977); Chairman of HISC (1978-1981).

1971 - 1974 Assistant Appalachian State University
Professor

Responsibilities: Undergraduate and graduate teaching; direction and development of the Human Performance Laboratory; coaching cross-country, indoor track, and track and field. Member of numerous departmental, college and university-wide committees.

COURSES TAUGHT AT UNIVERSITY OF KENTUCKY

- ♦ Physiology of Exercise
- ♦ Advanced Exercise Physiology
- ♦ Sports Medicine
- ♦ Research Techniques in HPR
- ♦ Theory of Measurement
- ♦ Anabolic Steroids
- ♦ Theory and Practice of Assessing Body Composition
- ♦ Cardiovascular Endurance Assessment
- ♦ Principles of Conditioning
- ♦ Medical Physiology - Exercise Physiology Section

PROFESSIONAL ORGANIZATIONS

- ♦ Phi Epsilon Kappa, 1965 - Life Member
- ♦ Member of American Alliance for Health, Physical Education and Recreation, 1968 - Life Member
- ♦ Fellow of American College of Sports Medicine, 1971 - present
- ♦ Member of Southeastern Chapter of American College of Sports Medicine, 1972 - 1986
- ♦ Member of Rocky Mountain Chapter of American College of Sports Medicine, 1986 - present, President, 1993 and 1996
- ♦ Member of Sports Medicine Committee, International Canoe Federation, 1990 to present
- ♦ Member of ACSM Ad Hoc Olympic Sports Medicine Issues Committee

OTHER PROFESSIONAL ACTIVITIES

Charter member and continued activity in a number of capacities in Southeastern Chapter ACSM, 1972 - 1986.

Fellow, American Alliance for Health, Physical Education, and Dance Recreation, Research Consortium, 1975 to present.

Project Director, NCAA National Youth Sports Program, 1978 - 1980.

Sports Medicine representative to the US Olympic Committee for Canoe Sport, 1978 - 1982.

Athlete's representative to the US Olympic Canoe and Kayak Committee (Secretary) 1979 - 1982.

Member, ACSM Committee on High Performance Athlete, 1980 - 1984.

USOC House of Delegates Representative for AAPHERD, 1980 - 1983.

Ad Hoc Olympic Sports Medicine Issues Committee, 1995 to present.

Chair, Biological Sciences Section; Organizing Committee for 6th IOC Congress.

Review manuscripts: Research Quarterly for Exercise and Sport Science, International Journal of Sports Medicine, National Strength and Conditioning Association Journal, Clinical Journal of Sports Medicine, Journal of Strength and Conditioning Research, Medicine and Science in Sports and Exercise, and The Physician and Sports Medicine.

PUBLICATIONS

- Kearney, Jay T. And G. Alan Stull, "A FORTRAN Program for the Reduction of Open-Circuit Data," Research Quarterly, 42:223-28, May, 1971.
- Kearney, Jay T., "Strength Recovery Following Rhythmic and Sustained Exercise," American Corrective Therapy Journal, 27:163-67, November, 1973.
- Stull, G. Alan and Jay T. Kearney, "Recovery of Muscular Endurance Following Rhythmic of Sustained Activity," Journal of Motor Behavior, 6:59-66, March, 1974.
- Kearney, Jay T. and William C. Byrnes, "The Relationship Between Running Performance and Predicted Maximum Oxygen Uptake Among Divergent Ability Groups," Research Quarterly, 45:9-15, March, 1974.
- Kearney, Jay T. and G. Alan Stull, "Fatigue Patterns during Second Bouts of Rhythmic and Sustained Exercise as a Function of Inter-trial Rest," Journal of Motor Behavior, 6:111-23, June, 1974.
- Byrnes, William C. and Jay T. Kearney, "Measures of Max VO₂ and Their Relationship to Running Performance among Three Subject Groups," American Corrective Therapy Journal, 28:145-50, September/October, 1974.
- Kearney, Jay T., "Indoor Track without Facility," Scholastic Coach, January, 1975.
- Kearney, Jay T. and James E. Nance, "The Application of the Principles of Exercise Physiology to Downriver Canoe Racing," KAHPER Journal, 12:19-20, November, 1975.
- Kearney, Jay T., G. Alan Stull, and Don Kirkendall, "Isometric Grip-Flexion Fatigue in Females under Conditions of Normal and Occluded Circulation," American Corrective Therapy Journal, 30:7-11, January/February, 1976.
- Santa Maria, D.L., George R. Kinnear, Jay T. Kearney, and Thomas P. Martin, "Objectivity, Reliability and Validity of the OSU Step Test," Research Quarterly, 47:445-52, October, 1976.
- Crews, Thad and Jay T. Kearney, "A Physiological Profile of Selected Members of the 1974 Western Kentucky University Cross-Country Team," KAHPER Journal, 13:15-17, November, 1976.
- Kearney, Jay T., G. Alan Stull, Jack L. Ewing, and John W. Strein, "Cardiorespiratory Responses of Sedentary College Women as a Function of Training Intensity," Journal of Applied Physiology, 41:822-25, December, 1976.

- Kielar, Richard A., Pentti Teraslinna, Jay T. Kearney, and Don Barker, "Effect of Changes in pCO₂ on Intraocular Tension," Investigative Ophthalmology and Visual Science, 16:534-37, June, 1977.
- Ordway, George A., Jay T. Kearney, and G. Alan Stull, "Rhythmic Isometric Fatigue Patterns of the Elbow Flexors and Knee Extensors," Research Quarterly, 48:734-40, December, 1978.
- Stull, G. Alan, and Jay T. Kearney, "Recovery of Muscular Endurance Following Submaximal, Isometric Exercise," Medicine and Science in Sports, 10:109-12, 1978.
- Steinbrecher, William L., Jay T. Kearney, and Melody Noland, "Students' Perception of the Coaches' Role in Athletics," The Physical Educator, 35:11-14, March, 1978.
- Stull, G. Alan and Jay T. Kearney, "Effects of Variable Fatigue Levels on Reaction Time Components," Journal of Motor Behavior, 10:223-31, No. 3, 1978.
- Noland, Melody and Jay T. Kearney, "Anthropometric and Densitometric Responses of Women to Specific and General Exercise," Research Quarterly, 49:322-28, October, 1978.
- Serfass, Robert C., G. Alan Stull, David Ben-Sira, and Jay T. Kearney, "Effects of Circulatory Occlusion on Submaximal, Isometric Endurance," American Corrective Therapy Journal, 33: September/October, 1979.
- Kearney, Jay T., "Training for Flatwater Canoeing," pp. 15-19 in Flatwater Canoeing, published by U.S. Olympic Committee, 1979.
- Kearney, Jay T., Leslie Klein and Ralph V. Mann, "The Elements of Style," Canoe, 7:18-21, May, 1979.
- Mann, Ralph V. and Jay T. Kearney, "A Biomechanical Analysis of Olympic Flatwater Kayak Paddlers," Medicine and Science in Sports, 12:183-88, No. 3, 1980.
- Kearney, Jay T. and G. Alan Stull, "Effect of Fatigue Level on Rate of Force Development by the Grip-Flexor Muscles," Medicine and Science in Sports and Exercise, 13:339-42, No. 5, 1981.
- Anderson, Tim and Jay T. Kearney, "Effects of Three Resistance Training Programs on Muscular Strength and Absolute and Relative Endurance," Research Quarterly for Exercise and Sport, 53:1-7, No. 1, 1982.
- Mann, Ralph V. and Jay T. Kearney, "The Biomechanics of Olympic Flatwater Paddling," Biomechanics in Sports, 1982.

- Seymour, Ronald J., Charles F. Knapp, Tim R. Anderson and Jay T. Kearney, "Paraplegic Use of the Orlau Swivel Walker: Case Report," Archives of Physical Medicine and Rehabilitation, 63:490-94, 1982.
- Kearney, Jay, T., "Athlete's Rights in Canada," Recreation Research Review, 11:46, 1985. (Book Review)
- Shapiro, Robert and Jay T. Kearney, "Methodological Considerations for the Quantitative Evaluation of Paddling," Proceeding of International Society for Sport Biomechanics, 1986.
- Kearney, Jay T. and Robert Shapiro, "Anatomical and Physiological Factors in Elite Female Kayakers," Proceeding of International Society for Sport Biomechanics, 1986.
- Yates, J. W., Jay T. Kearney, M.P. Noland and W.M. Felts, "Recovery of Dynamic Muscular Endurance," European Journal of Applied Physiology, 56:662-67, 1987.
- Boscardin, J.B., H. Schneider, R. Shapiro and Jay T. Kearney, "Human Body Composition Measurement - A Skin-Fold Method," Sportcare and Fitness, Nov-Dec: 11-13, 1988.
- Kearney, Jay T. and P.J. Van Handel, "Economy: A Physiologic Perspective," In Advance in Sports Medicine and Fitness, 2:57-90, 1989.
- Van Handel, Peter J., et al., "A Valid and Reliable Method for Sampling Blood Lactate Under Field or Laboratory Conditions," Proceedings of the Maccabiah-Wingate International Congress: Life Sciences, 38-47, 1989.
- Kearney, Jay T., "Sports Science in Support of Coaching: An Overview," Beyond the Barriers, Proceedings of the 1990 British Institute of Sports Coaches Annual Conference, pp. 1-5.
- Berglund, Bo, et al., "Serum Erythropoietin in Athletes at Moderate Altitude," Scandinavian Journal Medicine Science Sports, 2:21-25, 1992.
- Kraemer, W. J., et al., "Acute Hormonal Responses in Elite Junior Weightlifters," International Journal of Sports Medicine, 13(2):103-109, 1992.
- Warren, B.J., et al., "The Effects of Overwork on Performance Measures, Blood Lactate, and Plasma Ammonia Concentrations in Elite Junior Weightlifters," International Journal of Sports Medicine, 13(5):372-376, 1992.
- Lucia, A., S. J. Fleck, R. W. Gotshall, J. T. Kearney, "Validity and Reliability of the Cosmed K2 Instrument," International Journal of Sports Medicine, 14(7):380-386, 1993.
- Fry, Andrew C. et al., "Endocrine Responses to Overreaching Before and After 1 Year of Weightlifting," Canadian Journal of Applied Physiology, 19(4):400-10, 1994.

Fleck, Steven J., et al., "Anaerobic Power Effects of an Amino Acid Supplement Containing No Branched Chain Amino Acids in Elite Competitive Athletes," Journal of Strength and Conditioning Research, 9(3):132-138, 1995.

Kearney, Jay T., "Training the Olympic Athlete," Scientific American, 274(6):52-62, 1996.

Wilber, Randall L., et al., "Physiological Profiles of Elite Off-Road and Road Cyclists," Medicine and Science in Sports and Exercise 29 (8): 1090-1094, 1997.

Kearney, Jay T., "The Physiology and Energetic Profile of Kayak Sport," Proceedings: International Seminar on Kayak-Canoe Coaching and Science, International Canoe Federation, Ed. J. Vrijens, pp. 5-26, 1998.

Brunner, D. and J.T. Kearney, "Creatine Supplementation: Specifics for the Trained Athlete," Olympic Coach, 9(2): 3-5, 1999.

Wilber, R.L., S.D. Drake, J.L. Hesson, J.B. Nelson, J.T. Kearney, G.M. Dallan, and L.L. Williams, "Effect of Altitude Training on Serum Creatine Kinase Activity and Serum Cortisol Concentration in Triathletes," European Journal of Applied Physiology, 81:140-147, 2000.

Callan, S.D., D.M. Brunner, K.L. Devolve, S.E. Mulligan, J.L. Hesson, R.L. Wilber, J.T. Kearney, "Physiological Profiles of Elite Freestyle Wrestlers," Journal of Strength and Conditioning Research, 14: 2000.

Morris, D.M., J.T. Kearney and E.R. Burke, "The Effects of Breathing Supplemental Oxygen during Altitude Training on Cycling Performance," Journal of Science and Medicine in Sport, 3/2, 2000.

Stone, M.H., et al., "Creatine Supplementation and Health Variables: A Retrospective Study," Medicine and Science in Sports and Exercise, 2000.

Haugen, Heather A., et al., "Variability of Measured Metabolic Rate", Obesity Research, April, 2004.

Melaanson, Edward L., et al., Validation of the BodyGem Hand-Held Indirect Calorimeter", International Journal of Obesity, In press, 2004.

BOOK CHAPTERS

Kearney, Jay T., "Resistance Training: Development of Muscular Strength and Endurance," Toward an Understanding of Human Performance, ed. Edmund J. Burke (Ithaca, NY: Human Movement Publications) 1977.

Kearney, J.T., K.W. Rundell, R.L. Wilber, "Measurement of Work and Power in Sport" in

Exercise and Sport Science, Garrett, WE and D. Kirkendall (Eds), Philadelphia: Lippincott, Williams and Wilkins, pp. 31-52, 2000.

Kearney, J.T. and D.C. McKenzie, "Applied Physiology of Canoe Sport" in Exercise and Sport Science; Garrett, WE and D. Kirkendall (Eds), Philadelphia: Lippincott, Williams and Wilkins, pp. 745-757, 2000.

RECENT PRESENTATIONS

Kearney, Jay T., "Physiological Foundation of Rowing: Systems and Their Trainability," U.S. Rowing, Level II Coaching Workshop, Miami Beach, February 1997.

Wilber, R.W. and Kearney, Jay T., "The Physiological Evaluation of Cyclists," US Cycling's, International Coaching Symposium, February 1997.

Shannon, Mike and Kearney, Jay T., "Physiology and Periodization," U.S.C.K.T. Sprint and Slalom Coaches Conference, San Diego, March 1997.

Kearney, Jay T., "Performance Analysis, Testing and Periodization," U.S. Skiing 1997 Conditioning Coaches Retreat, CSOTC, April 1997.

Kearney, Jay T., "Application of Science and Technology to Olympic Performance," Moderator and Presenter, Colloquium ACSM Meeting, Denver, 1997.

Kearney, Jay T., "The Cardiopulmonary System: Its Adaptation to Training," VI International Symposium on Actualization in Sports Sciences, Rosario, Argentina, October 1998.

Kearney, Jay T., "The Science of Winning: A Golfer's Perspective," SST Staff, U.S. Olympic Congress, October 1999.

Kearney, Jay T., "Altitude Training and Athletic Performance," USA Track and Field Level III Coach Clinic, Orlando, December 1999.

Kearney, Jay T., USOC High Performance Summit on Altitude Training; One of Primary Organizers and Presenters, Park City, UT, June 1999.

Kearney, Jay T., "An Ethical Dilemma: Is the Use of Artificial Environments to Simulate Altitude Training Ethical?" with Peter J. Neary, ACSM, Seattle, June 1999.

Kearney, Jay T., "Metabolic Carts: Are you Getting the Data You Paid For?," ACSM Mini-Symposium with J.W. Yates and H. Welch. ACSM, Seattle, June 1999.

RECENT ABSTRACTS

Byrnes, W.C. and Jay T. Kearney, "Aerobic and Anaerobic Contributions during Simulated

- Canoe/Kayak Sprint Events," Medicine and Science in Sports and Exercise, 29(5):S220, 1997.
- Wilber, R.L. et al., "Maximal Physiological Responses of Junior Elite Female and Male Triathletes," Medicine and Science in Sports and Exercise, 29(5):S268, 1997.
- Lim, A.C. et al., Exercise - "Induced Desaturation in Elite Female and Male Cyclists at Moderate Altitudes," Medicine and Science in Sports and Exercise, 29(5):S268, 1997.
- Callan, S.D. et al., "Physiological Profiles of Elite Freestyle Wrestlers," Medicine and Science in Sports and Exercise, 30(5): S34, 1998.
- Wilber, R.L. et al., "Effect of Altitude on Skeletal Muscle Enzymes and Immune Response of Elite Triathletes," Medicine and Science in Sports and Exercise, 30(5): S173, 1998.
- Callan, S.D. et al., "Response to Training Impulse in National Class Nordic Combined Athletes," Medicine and Science in Sports and Exercise, 31(5): S100, 1999.
- Wilber, R.L. et al., "Seasonal Variation in Serum Enzyme Activity of Elite Volleyball Athletes," Medicine and Science in Sports and Exercise, 32(5): S 333, 2000.

FUNDED GRANTS

- "The Training Threshold for the Development of Cardiovascular Endurance in Untrained College Men:" Graduate School Appalachian State University, \$500, 1972.
- "Major Research Equipment Proposal," Submitted to the Graduate School of the University of Kentucky with G. Alan Stull. Funded for approximately \$13,500.
- "A Biomechanical Analysis of Flatwater Canoe and Kayak Paddlers". Supported by U.K.R.F. and done with Ralph V. Mann, 1977 and 1981.
- "National Youth Sports Program". Funded by the NCAA for \$36,000 per year, 1978 and 1979.
- "Effects of Habitual Tobacco Smoke Consumption on Skeletal Muscle Blood Flow Responses to Exercise and Physical Work Capacity". With D. R. Richardson as P. I., funded by Kentucky Tobacco and Health Institute for approximately \$54,000, 1978-1979.
- "Ergogenic Effect of a Ginseng Root Extract". Funded by Pharmaton, \$12,500, 1982.
- "The Biomechanical and Metabolic Assessment of the Demands of Selected Materials Handling Tasks in Low-Seam Miners". P. I. with Robert Shapiro. Funded by U.S. Bureau of Mines, \$8,500, 1985.
- "Childhood Nutrition, Physical Activity, and Cardiovascular Health". Jane Kotchen P. I.,

member of a multidisciplinary team in this 5-year NHLB project, \$579,000, 1984-1988.

THESES AND DISSERTATION DIRECTION

Director of approximately 35 Master's theses projects and two (2) doctoral dissertations.

ATHLETIC BACKGROUND

High School: Football, and Track and Field

College: Football, Wrestling and Track and Field

Canoeing: National Championships 1975-1985
World Championship Teams 1978-1981
Olympic Team, 1980
5 National Championships

HOBBIES AND RECREATION

- Backcountry and Nordic Skiing
- Snowboarding
- Mountain Biking
- Sea Kayaking
- Woodworking