Stanford



# Gordon O. Matheson

Professor of Orthopaedic Surgery (Sports Medicine) at the Stanford University Medical Center, Emeritus

## Bio

### BIO

Gordon O. Matheson MD, PhD

Professor Emeritus, Stanford University School of Medicine

Dr. Matheson has been a Professor of Sports Medicine at Stanford since 1994. He established and was the first Head of the Division of Sports Medicine, served as Director of Sports Medicine from 1994-2016, was a member of the Medical Senate, and interviewed medical school applicants for the Medical School Admissions Committee. Dr. Matheson has taught many undergraduate courses at Stanford to students in Human Biology and established the fellowship program in primary care sports medicine. He has authored more than 200 publications and given more than 250 lectures in 16 countries. He founded the Clinical Journal of Sport Medicine, chaired the Board Governance Committee for the International Justice Mission, served as an expert for the World Anti-Doping Agency, and headed the International Olympic Committee Disease Prevention Working Group. Dr. Matheson, a Canadian, was President of the Canadian Academy of Sport Medicine, team physician for the Canadian Olympic Hockey Team and the Vancouver Canucks of the National Hockey League. During his time at Stanford he maintained an active medical practice while serving as team physician for Stanford Athletics and the Golden State Warriors.

Dr. Matheson's academic work now focuses on the use of human-centered design to co-create effective programs for the prevention of chronic disease. Through his work building the sports medicine program at Stanford, he has become recognized as a leader in mitigating the conflict of interest environment common to the health care of athletes. He served as a conflict of interest expert witness for the Michael Jackson wrongful death trial, the court challenge to the constitutionality of the Canada Health Act, and the National Football League.

Dr. Matheson lives in Vancouver and is active in pursuing change to healthcare delivery through analysis of factors that influence Standard of Care.

### ACADEMIC APPOINTMENTS

- Emeritus Faculty-Med Ctr Line, Orthopaedic Surgery

### ADMINISTRATIVE APPOINTMENTS

- Director of Sports Medicine, Stanford University, (1994-2016)
- Adjunct Professor of Human Biology, Stanford University, (1996-2016)
- Team Physician, Golden State Warriors, NBA, (2014-2017)
- Co-Director, Human Performance Laboratory, Stanford University, (2006-2016)

- Director, Sports Medicine Fellowship, Stanford University, (2000-2016)
- Head Team Physician, Stanford University, (1994-2016)
- Adjunct Professor of Kinesiology, University of British Columbia, (2016-2019)
- Member, Strategic Advisory Board, NBA & GE Orthopedic & Sports Medicine Research Collaboration, (2015-2018)
- Chair, Non-Communicable Disease Working Group, International Olympic Committee Medical Commission, (2012-2015)
- Senator, Stanford Medical School, (1999-2003)
- Editor-in-Chief, The Physician and Sportsmedicine, McGraw Hill, (1998-2005)
- Chief, Division of Sports Medicine, Stanford University, (1996-2005)
- President, Canadian Academy of Sport and Exercise Medicine, (1992-1993)
- Editor-in-Chief, Clinical Journal of Sport Medicine, Williams & Wilkins, (1991-1998)
- Team Physician, Vancouver Canucks (NHL), (1989-1992)

### HONORS AND AWARDS

- Featured Author, American Journal of Sports Medicine (2015)
- Honoree, Stanford Introductory Seminars 10th Anniversary (2008)
- Expert, Therapeutic Use Exemption Committee, World Anti-Doping Agency (2009-2014)
- Fellow, American College of Sports Medicine (1996-present)
- Scholar, British Columbia Health Research Foundation (1990-1992)
- Medical Officer, XV Olympic Winter Games (1988)
- Fellow, Medical Research Council of Canada (1988-90)
- Fellow, Alberta Heritage Foundation for Medical Research (1994-1998)
- Rick Hansen Research Award, British Columbia Medical Association (1987)

### PROFESSIONAL EDUCATION

- MD, University of Calgary , Medicine (1975)
- Internship, University of Calgary , General Medicine (1976)
- Residency, University of Calgary , Family Medicine (1977)
- Fellowship, University of British Columbia , Sports Medicine (1986)
- MSc, University of British Columbia , Exercise Physiology (1986)
- PhD, University of British Columbia , Exercise Biochemistry (1989)

### COMMUNITY AND INTERNATIONAL WORK

- International Justice Mission, Washington DC

### LINKS

- Sports Medicine Center: http://sportsmedicine.stanford.edu/

## Research & Scholarship

### CURRENT RESEARCH AND SCHOLARLY INTERESTS

Sports Medicine, Musculoskeletal Injuries, Rehabilitation, Exercise Medicine, Prevention of Chronic Disease, Human-Centered Design, Conflict of interest in healthcare

## Publications

### PUBLICATIONS

- **Adenovirus Infection and Rhabdomyolysis as a Cause of Acute Liver Failure in a Healthy Collegiate Football Athlete: A Case Report and Proposed Return to Play Protocol for Rhabdomyolysis** *CUREUS*
  Hwang, C. E., Matheson, G., Baine, J.
  2021; 13 (4)

- **Adenovirus Infection and Rhabdomyolysis as a Cause of Acute Liver Failure in a Healthy Collegiate Football Athlete: A Case Report and Proposed Return to Play Protocol for Rhabdomyolysis.** *Cureus*
  Hwang, C. E., Matheson, G., Baine, J.
  2021; 13 (4): e14510

- **Smooth Pursuit Eye-Movement Abnormalities Associated With Cervical Spine Whiplash: A Scientific Review and Case Report** *CUREUS*
  Boo, M., Matheson, G., Lumba-Brown, A.
  2020; 12 (8)

- **Call to Action on Making Physical Activity Assessment and Prescription a Medical Standard of Care** *CURRENT SPORTS MEDICINE REPORTS*
  Sallis, R. E., Matuszak, J. M., Baggish, A. L., Franklin, B. A., Chodzko-Zajko, W., Fletcher, B. J., Gregory, A., Joy, E., Matheson, G., McBride, P., Puffer, J. C., Trilk, J., Williams, et al
  2016; 15 (3): 207-214

- **Injuries and Illnesses in the Preparticipation Evaluation Data of 1693 College Student-Athletes** *AMERICAN JOURNAL OF SPORTS MEDICINE*
  Matheson, G. O., Anderson, S., Robell, K.
  2015; 43 (6): 1518-1525

- **Leveraging Human-Centered Design in Chronic Disease Prevention** *AMERICAN JOURNAL OF PREVENTIVE MEDICINE*
  Matheson, G. O., Pacione, C., Shultz, R. K., Kluegl, M.
  2015; 48 (4): 472-479

- **2014 Female Athlete Triad Coalition Consensus Statement on Treatment and Return to Play of the Female Athlete Triad: 1st International Conference held in San Francisco, California, May 2012 and 2nd International Conference held in Indianapolis, Indiana, May 2013** *BRITISH JOURNAL OF SPORTS MEDICINE*
  De Souza, M. J., Nattiv, A., Joy, E., Misra, M., Williams, N. I., Mallinson, R. J., Gibbs, J. C., Olmsted, M., Goolsby, M., Matheson, G.
  2014; 48 (4)

- **Team Clinician Variability in Return-to-Play Decisions.** *Clinical journal of sport medicine*
  Shultz, R., Bido, J., Shrier, I., Meeuwisse, W. H., Garza, D., Matheson, G. O.
  2013; 23 (6): 456-461

- **Prevention and management of non-communicable disease: the IOC consensus statement, Lausanne 2013** *BRITISH JOURNAL OF SPORTS MEDICINE*
  Matheson, G. O., Kluegl, M., Engebretsen, L., Bendiksen, F., Blair, S. N., Borjesson, M., Budgett, R., Derman, W., Erdener, U., Ioannidis, J. P., Khan, K. M., Martinez, R., van Mechelen, et al
  2013; 47 (16): 1003-U56

- **Responsibility of sport and exercise medicine in preventing and managing chronic disease: applying our knowledge and skill is overdue** *BRITISH JOURNAL OF SPORTS MEDICINE*
  Matheson, G. O., Kluegl, M., Dvorak, J., Engebretsen, L., Meeuwisse, W. H., Schwellnus, M., Blair, S. N., van Mechelen, W., Derman, W., Borjesson, M., Bendiksen, F., Weiler, R.
  2011; 45 (16): 1272-1282

- **The Prevention of Sport Injury: An Analysis of 12 000 Published Manuscripts** *CLINICAL JOURNAL OF SPORT MEDICINE*
  Kluegl, M., Shrier, I., McBain, K., Shultz, R., Meeuwisse, W. H., Garza, D., Matheson, G. O.
  2010; 20 (6): 407-412

- **Return-to-Play in Sport: A Decision-based Model** *CLINICAL JOURNAL OF SPORT MEDICINE*
  Creighton, D. W., Shrier, I., Shultz, R., Meeuwisse, W. H., Matheson, G. O.

2010; 20 (5): 379-385

- **The International Olympic Committee (IOC) Consensus Statement on Periodic Health Evaluation of Elite Athletes, March 2009** *CLINICAL JOURNAL OF SPORT MEDICINE*
  Ljungqvist, A., Jenoure, P. J., Engebretsen, L., Alonso, J. M., Bahr, R., Clough, A. F., de Bondt, G., Dvorak, J., Maloley, R., Matheson, G., Meeuwisse, W., Meijboom, E. J., Mountjoy, et al
  2009; 19 (5): 347-360

- **Exercise and prostate cancer** *SPORTS MEDICINE*
  Torti, D. C., Matheson, G. O.
  2004; 34 (6): 363-369

- **The lactate paradox in human high-altitude physiological performance** *NEWS IN PHYSIOLOGICAL SCIENCES*
  Hochachka, P. W., Beatty, C. L., Burelle, Y., Trump, M. E., McKenzie, D. C., Matheson, G. O.
  2002; 17: 122-126

- **Failure and fatigue characteristics of adhesive athletic tape** *MEDICINE AND SCIENCE IN SPORTS AND EXERCISE*
  Bragg, R. W., MacMahon, J. M., Overom, E. K., Yerby, S. A., Matheson, G. O., Carter, D. R., Andriacchi, T. P.
  2002; 34 (3): 403-410

- **A comprehensive and cost-effective preparticipation exam implemented on the World Wide Web** *MEDICINE AND SCIENCE IN SPORTS AND EXERCISE*
  Peltz, J. E., Haskell, W. L., Matheson, G. O.
  1999; 31 (12): 1727-1740

- **Preparticipation screening of athletes** *JAMA-JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION*
  Matheson, G. O.
  1998; 279 (22): 1829-1830

- **Achilles tendonitis: Are corticosteroid injections useful or harmful?** *CLINICAL JOURNAL OF SPORT MEDICINE*
  Shrier, I., Matheson, G. O., Kohl, H. W.
  1996; 6 (4): 245-250

- **TRAINING AND CLINICAL COMPETENCE IN MUSCULOSKELETAL MEDICINE - IDENTIFYING THE PROBLEM** *SPORTS MEDICINE*
  Craton, N., Matheson, G. O.
  1993; 15 (5): 328-337

- **REGULATING ATP TURNOVER RATES OVER BROAD DYNAMIC WORK RANGES IN SKELETAL-MUSCLES** *JOURNAL OF APPLIED PHYSIOLOGY*
  Hochachka, P. W., Matheson, G. O.
  1992; 73 (5): 1697-1703

- **P-31 NMR OF ELECTRICALLY STIMULATED RECTUS FEMORIS MUSCLE - AN INVIVO GRADED-EXERCISE MODEL** *MAGNETIC RESONANCE IN MEDICINE*
  Matheson, G. O., McKenzie, D. C., Gheorghiu, D., ELLINGER, D. C., Quinney, H. A., Allen, P. S.
  1992; 26 (1): 60-70

- **SKELETAL-MUSCLE METABOLISM AND WORK CAPACITY - A P-31-NMR STUDY OF ANDEAN NATIVES AND LOWLANDERS** *JOURNAL OF APPLIED PHYSIOLOGY*
  Matheson, G. O., Allen, P. S., ELLINGER, D. C., Hanstock, C. C., Gheorghiu, D., McKenzie, D. C., Stanley, C., Parkhouse, W. S., Hochachka, P. W.
  1991; 70 (5): 1963-1976

- **MUSCULOSKELETAL INJURIES ASSOCIATED WITH PHYSICAL-ACTIVITY IN OLDER ADULTS** *MEDICINE AND SCIENCE IN SPORTS AND EXERCISE*
  Matheson, G. O., Macintyre, J. G., Taunton, J. E., Clement, D. B., LLOYDSMITH, R.
  1989; 21 (4): 379-385

- **STRESS-FRACTURES IN ATHLETES - A STUDY OF 320 CASES** *AMERICAN JOURNAL OF SPORTS MEDICINE*
  Matheson, G. O., Clement, D. B., McKenzie, D. C., Taunton, J. E., LLOYDSMITH, D. R., Macintyre, J. G.
  1987; 15 (1): 46-58

- **Smooth Pursuit Eye-Movement Abnormalities Associated With Cervical Spine Whiplash: A Scientific Review and Case Report.** *Cureus*
  Boo, M., Matheson, G., Lumba-Brown, A.
  2020; 12 (8): e9872

- **Incidence and Epidemiology of Foot and Ankle Injuries in Elite Collegiate Athletes** *AMERICAN JOURNAL OF SPORTS MEDICINE*
  Hunt, K. J., Hurwit, D., Robell, K., Gatewood, C., Botser, I. B., Matheson, G.
  2017; 45 (2): 426-433

- **Towards the reduction of injury and illness in athletes: defining our research priorities.** *British journal of sports medicine*
  Finch, C. F., Bahr, R. n., Drezner, J. A., Dvorak, J. n., Engebretsen, L. n., Hewett, T. n., Junge, A. n., Khan, K. M., MacAuley, D. n., Matheson, G. O., McCrory, P. n., Verhagen, E. n.
  2017; 51 (16): 1178–82

- **Disease prevention: what's really important?** *British journal of sports medicine*
  Matheson, G. O., Witteman, H. O., Mochar, T. G.
  2015; 49 (23): 1483–84

- **Site-specific loading at the fifth metatarsal base in rehabilitative devices: implications for Jones fracture treatment.** *PM & R : the journal of injury, function, and rehabilitation*
  Hunt, K. J., Goeb, Y., Esparza, R., Malone, M., Shultz, R., Matheson, G.
  2014; 6 (11): 1022-1029

- **Misunderstanding the Female Athlete Triad: Refuting the IOC Consensus Statement on Relative Energy Deficiency in Sport (RED-S)** *BRITISH JOURNAL OF SPORTS MEDICINE*
  De Souza, M., Williams, N. I., Nattiv, A., Joy, E., Misra, M., Loucks, A. B., Matheson, G., Olmsted, M. P., Barrack, M., Mallinson, R. J., Gibbs, J. C., Goolsby, M., Nichols, et al
  2014; 48 (20): 1461–65

- **Changing level of physical activity and changing degree of happiness.** *Clinical journal of sport medicine : official journal of the Canadian Academy of Sport Medicine*
  Matheson, G. O.
  2014; 24 (2): 162–63

- **Prevention and Management of Noncommunicable Disease: The IOC Consensus Statement, Lausanne 2013.** *Clinical journal of sport medicine : official journal of the Canadian Academy of Sport Medicine*
  Matheson, G. O., Klügl, M., Engebretsen, L., Bendiksen, F., Blair, S. N., Börjesson, M., Budgett, R., Derman, W., Erdener, U., Ioannidis, J. P., Khan, K. M., Martinez, R., van Mechelen, et al
  2013; 23 (6): 419-29

- **Test-retest And Inter-rater Reliability Of The Functional Lower Extremity Evaluation**
  Hodgins, M., Haitz, K., Shultz, R., Matheson, G.
  LIPPINCOTT WILLIAMS & WILKINS.2013: 421

- **Test-retest And Inter-rater Reliability Of The Functional Lower Extremity Evaluation**
  Hodgins, M., Haitz, K., Shultz, R., Matheson, G.
  LIPPINCOTT WILLIAMS & WILKINS.2013: 395

- **Developing a Functional Test for Athletes Following a Lower Extremity Injuries**
  Shultz, R. K., Hodgins, M., Haitz, K., Popish, J., Matheson, G. O.
  LIPPINCOTT WILLIAMS & WILKINS.2012: 631

- **Maximal Physiologic And Kinematic Parameters During Partial Weight Unloading Treadmill Testing**
  Gojanovic, B., Cutti, P., Shultz, R., Matheson, G. O.
  LIPPINCOTT WILLIAMS & WILKINS.2012: 616

- **The Prevention of Sport Injury: An Analysis of 12 000 Published Manuscripts.** *Clinical journal of sport medicine : official journal of the Canadian Academy of Sport Medicine*
  Klügl, M. n., Shrier, I. n., McBain, K. n., Shultz, R. n., Meeuwisse, W. H., Garza, D. n., Matheson, G. O.
  2010; 20 (6): 407–12

- **Description Of Injuries Among Cirque Du Soleil Artists 2002-2006**

Shrier, I., Meeuwisse, W., Matheson, G., Wingfield, K., Steele, R. J., Prince, F., Montanaro, M., Pundick, J., Lamme, E., Mellette, J.
LIPPINCOTT WILLIAMS & WILKINS.2008: S235

- **Predisposing Characteristics for Tibial Stress Fracture**
  Beck, B. R., Bergman, G., Matheson, G., Hoffman, A., Norling, T., Marcus, R.
  LIPPINCOTT WILLIAMS & WILKINS.2008: S41

- **Do Capacitively Coupled Electric Fields Accelerate Tibial Stress Fracture Healing?**
  Beck, B. R., Matheson, G., Bergman, G., Hoffman, A., Norling, T., Marcus, R.
  LIPPINCOTT WILLIAMS & WILKINS.2006: S70–S71

- **Is it OK to be a fan and a team physician?** *PHYSICIAN AND SPORTSMEDICINE*
  Matheson, G. O.
  2002; 30 (9): 2