

Stanford



Emily Kraus

Clinical Assistant Professor, Orthopaedic Surgery

 Curriculum Vitae available Online

CLINICAL OFFICES

- **Sunnyvale Orthopedics and Sports Medicine Clinic**

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ACADEMIC CONTACT INFORMATION

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Bio

BIO

Dr. Emily Kraus is a Clinical Assistant Professor at Stanford Children's Orthopedic and Sports Medicine Center. She specializes in Physical Medicine and Rehabilitation (PM&R) sports medicine and takes a unique approach to the diagnosis, treatment, and prevention of sports injuries in athletes of all ages. She is involved in multiple Stanford IRB-approved research projects, including The Healthy Runner Project, a multicenter prospective interventional study focused on bone stress injury prevention in collegiate middle and long distance runners.

Dr. Kraus also spends time performing gait analysis at the Stanford Run Safe Injury Prevention Program and serves as a medical advisors for the Adaptive Sports Injury Prevention Program at the Palo Alto VA. She has research and clinical interests in endurance sports medicine, injury prevention, running biomechanics, the prevention of bone stress injuries in collegiate athletes and the promotion of health and wellness at any age of life.

She has completed seven marathons including Boston Marathon twice and one 50k ultramarathon. With running and staying physically active as one of her personal passions, she recognizes the importance of fitness for overall wellbeing and the prevention of chronic medical conditions.

CLINICAL FOCUS

- Female Athlete Triad
- Running Injuries
- Stress Fractures
- Overuse Injuries
- Concussions
- Physical Medicine and Rehab

ACADEMIC APPOINTMENTS

- Clinical Assistant Professor, Orthopaedic Surgery
- Member, Wu Tsai Human Performance Alliance

- Member, Maternal & Child Health Research Institute (MCHRI)

PROFESSIONAL EDUCATION

- Board Certification: Physical Medicine and Rehab, American Board of Physical Medicine and Rehab (2017)
- Board Certification: Sports Medicine, American Board of Physical Medicine and Rehab (2017)
- Fellowship: Stanford University Sports Physical Med and Rehab Fellowship (2017) CA
- Residency: Stanford University Physical Medicine and Rehabilitation (2016) CA
- Internship: University of Nebraska Medical Center Internal Medicine Residency (2013) NE
- Medical Education: University of Nebraska College of Medicine (2012) NE

Publications

PUBLICATIONS

- **One size does not fit all: Influence of sex and maturation on temporal-spatial parameters for adolescent long-distance runners.** *Journal of sports sciences*
Garcia, M. C., Heiderscheid, B. C., Murray, A. M., Norte, G. E., Kraus, E., Bazett-Jones, D. M.
2022; 1-6
- **Analysis of limb kinetic asymmetry during a drop vertical jump in adolescents post anterior cruciate ligament reconstruction.** *Clinical biomechanics (Bristol, Avon)*
Bakal, D. R., Morgan, J. J., Lyons, S. M., Chan, S. K., Kraus, E. A., Shea, K. G.
2022; 100: 105794
- **Stress Injuries of the Knee.** *Clinics in sports medicine*
Kraus, E., Rizzone, K., Walker, M., Brown, N., Kaur, J., Magrini, D., Glover, J., Nussbaum, E.
2022; 41 (4): 707-727
- **Medical and Biomechanical Risk Factors for Incident Bone Stress Injury in Collegiate Runners: Can Plantar Pressure Predict Injury?** *Orthopaedic journal of sports medicine*
Wilzman, A. R., Tenforde, A. S., Troy, K. L., Hunt, K., Fogel, N., Roche, M. D., Kraus, E., Trikha, R., Delp, S., Fredericson, M.
2022; 10 (6): 23259671221104793
- **Evidence-Based Management of Medial Tibial Stress Syndrome in Runners** *CURRENT PHYSICAL MEDICINE AND REHABILITATION REPORTS*
Kuwabara, A., Dyrek, P., Olson, E., Kraus, E.
2021
- **Joint Level Analysis Of Mechanical Power During Drop Vertical Jumps In Youth Post ACL Reconstruction**
Morgan, J. J., Lyons, S. M., Chan, S. K., Shea, K. G., Kraus, E. A.
LIPPINCOTT WILLIAMS & WILKINS.2021: 145
- **Prevalence and Factors Associated with Bone Stress Injury in Middle School Runners.** *PM & R : the journal of injury, function, and rehabilitation*
Tenforde, A. S., DeLuca, S., Wu, A. C., Ackerman, K. E., Lewis, M., Rauh, M. J., Heiderscheid, B., Krabak, B. J., Kraus, E., Roberts, W., Troy, K. L., Barrack, M. T.
2021
- **Prevalence of Female and Male Athlete Triad Risk Factors in Ultramarathon Runners.** *Clinical journal of sport medicine : official journal of the Canadian Academy of Sport Medicine*
Hoeg, T. B., Olson, E. M., Skaggs, K., Sainani, K., Fredericson, M., Roche, M., Kraus, E.
2021
- **The Male Athlete Triad-A Consensus Statement From the Female and Male Athlete Triad Coalition Part I: Definition and Scientific Basis.** *Clinical journal of sport medicine : official journal of the Canadian Academy of Sport Medicine*
Nattiv, A., De Souza, M. J., Koltun, K. J., Misra, M., Kussman, A., Williams, N. I., Barrack, M. T., Kraus, E., Joy, E., Fredericson, M.
2021
- **The Male Athlete Triad-A Consensus Statement From the Female and Male Athlete Triad Coalition Part II: Diagnosis, Treatment, and Return-To-Play.** *Clinical journal of sport medicine : official journal of the Canadian Academy of Sport Medicine*

- Fredericson, M., Kussman, A., Misra, M., Barrack, M. T., De Souza, M. J., Kraus, E., Koltun, K. J., Williams, N. I., Joy, E., Nattiv, A.
2021
- **Narrative Review - Knee Pain in the Pediatric Athlete.** *Current reviews in musculoskeletal medicine*
Kuwabara, A., Kraus, E., Fredericson, M.
2021
 - **Dietary Supplement Use According to Sex and Triad Risk Factors in Collegiate Endurance Runners.** *Journal of strength and conditioning research*
Barrack, M., Fredericson, M., Dizon, F., Tenforde, A., Kim, B., Kraus, E., Kussman, A., Singh, S., Nattiv, A.
2020
 - **Identifying Triad Risk Factors In Ultramarathon Runners**
Skaggs, K. F., Fredericson, M., Miller, E. K., Roche, M., Hoeg, T. B., Sainani, K., Kraus, E.
LIPPINCOTT WILLIAMS & WILKINS.2020: 68
 - **Relationship Between Dynamic Limb Symmetry And Subjective Limb Confidence Post ACL Reconstruction In Youth Athletes**
Morgan, J. J., Lyons, S. M., Chan, S. K., Chan, C. M., Shea, K. G., Kraus, E. A.
LIPPINCOTT WILLIAMS & WILKINS.2020: 2–3
 - **Dietary Intake Patterns And Risk Of Energy Deficiency In Ncaa Endurance Athletes**
Hernandez, C., Fredericson, M., Nattiv, A., Kraus, E., Kussman, A., Gravani, K., Miller, B., Papanos, L., Roche, M., Agans, D., Grohmann, E., Brotman, C., Barrack, et al
LIPPINCOTT WILLIAMS & WILKINS.2020: 753
 - **Genetic Predictions Of Bone Mineral Density In Ultramarathon Runners: For Men, But Not For Women**
Miller, E. K., Fredericson, M., Roche, M., Skaggs, K., Hoeg, T., Sainani, K., Kraus, E.
LIPPINCOTT WILLIAMS & WILKINS.2020: 783–84
 - **Food Accessibility And Eating Patterns In Elite Collegiate Endurance Runners**
Agans, D., Barrack, M., Fredericson, M., Kraus, E., Kussman, A., Gravani, K., Miller, B., Papanos, L., Roche, M., Hernandez, C., Grohmann, E., Brotman, C., Nattiv, et al
LIPPINCOTT WILLIAMS & WILKINS.2020: 757
 - **Predictors And Prevalence Of Low Bone Mineral Density And Bone Stress Injuries In Ultramarathon Runners**
Hoeg, T. B., Fredericson, M., Sainani, K. L., Skaggs, K. F., Roche, M. D., Miller, E., Kraus, E.
LIPPINCOTT WILLIAMS & WILKINS.2020: 492
 - **Youth running consensus statement: minimising risk of injury and illness in youth runners.** *British journal of sports medicine*
Krabak, B. J., Roberts, W. O., Tenforde, A. S., Ackerman, K. E., Adami, P. E., Baggish, A. L., Barrack, M. n., Cianca, J. n., D'Hemecourt, P. n., Fredericson, M. n., Goldman, J. T., Harrast, M. A., Heiderscheit, et al
2020
 - **Prevalence of Female Athlete Triad Risk Factors and Iron Supplementation Among High School Distance Runners: Results From a Triad Risk Screening Tool.** *Orthopaedic journal of sports medicine*
Skorseth, P. n., Segovia, N. n., Hastings, K. n., Kraus, E. n.
2020; 8 (10): 2325967120959725
 - **Impact of Adaptive Sports Participation on Quality of Life.** *Sports medicine and arthroscopy review*
Diaz, R., Miller, E. K., Kraus, E., Fredericson, M.
2019; 27 (2): 73–82
 - **Iron Supplementation and the Female Athlete Triad in High School Distance Runners**
Skorseth, P., Dingel, A., Hastings, K., Segovia, N., Kraus, E.
LIPPINCOTT WILLIAMS & WILKINS.2019: 736
 - **Bone stress injuries in male distance runners: higher modified Female Athlete Triad Cumulative Risk Assessment scores predict increased rates of injury.** *British journal of sports medicine*
Kraus, E., Tenforde, A. S., Nattiv, A., Sainani, K. L., Kussman, A., Deakins-Roche, M., Singh, S., Kim, B. Y., Barrack, M. T., Fredericson, M.
2018

- **Corrigendum to "A little bit faster: Lower extremity joint kinematics and kinetics as recreational runners achieve faster speeds" [J. Biomech. 71 (2018) 167-175].** *Journal of biomechanics*
Orendurff, M. S., Kobayashi, T., Tulchin-Francis, K., Tullock, A. M., Villarosa, C., Chan, C., Kraus, E., Strike, S.
2018
- **Team Approach: Bone Health in Children and Adolescents.** *JBJS reviews*
Kraus, E., Bachrach, L. K., Grover, M.
2018
- **Utilization And Efficacy Of The "Run Fueled" Smart-phone Application Among Collegiate Endurance Runners**
Barrack, M., Fredericson, M., Kraus, E., Kim, B., Singh, S., Gravani, K., Miller, B., Nattiv, A.
LIPPINCOTT WILLIAMS & WILKINS.2018: 82
- **A Review and Proposed Rationale for the use of Ultrasonography as a Diagnostic Modality in the Identification of Bone Stress Injuries.** *Journal of ultrasound in medicine : official journal of the American Institute of Ultrasound in Medicine*
Fukushima, Y., Ray, J., Kraus, E., Syrop, I. P., Fredericson, M.
2018
- **Nutrition Goals Prioritized By Elite Endurance Runners Undergoing A Nutrition Education Intervention**
Barrack, M., Fredericson, M., Adam, T. S., Kraus, E., Kim, B., Singh, S., Kussman, A., Gravani, K., Ansari, Y., Miller, B., Nattiv, A.
LIPPINCOTT WILLIAMS & WILKINS.2017: 852
- **Preliminary Results from a Prospective Study Using the Female Athlete Triad Cumulative Risk Assessment**
Kraus, E., Nattiv, A., Tenforde, A., Kussman, A., Barrack, M., Kim, B., Deakins-Roche, M., Mistra, N., Singh, S., Fredericson, M.
LIPPINCOTT WILLIAMS & WILKINS.2017: 1098
- **Integrating Musculoskeletal Education and Patient Care at Medical Student-Run Free Clinics.** *PM & R : the journal of injury, function, and rehabilitation*
McQuillan, T., Wilcox-Fogel, N., Kraus, E., Ladd, A., Fredericson, M.
2017
- **Poster 155 Higher Cumulative Risk Assessment Scores Are Associated with Delayed Return to Play in Division I Collegiate Distance Runners.** *PM & R : the journal of injury, function, and rehabilitation*
Kraus, E. A., Kim, B., Nattiv, A., Tenforde, A., Barrack, M., Deakins-Roche, M., Kussman, A., Singh, S., Morkos, J., Fredericson, M.
2016; 8 (9S): S212-S213
- **Piriformis Syndrome With Variant Sciatic Nerve Anatomy: A Case Report.** *PM & R : the journal of injury, function, and rehabilitation*
Kraus, E., Tenforde, A. S., Beaulieu, C. F., Ratliff, J., Fredericson, M.
2016; 8 (2): 176-179
- **Bone Stress Injuries in Runners.** *Physical medicine and rehabilitation clinics of North America*
Tenforde, A. S., Kraus, E., Fredericson, M.
2016; 27 (1): 139-149