Stanford

Gauri Desai

Postdoctoral Scholar, Bioengineering

Bio

BIO

Dr. Gauri Desai is a Postdoctoral Research Associate with the Female Athlete Science and Translational Research Program (FASTR). She is a biomechanist, with a research focus on female-specific biomechanical risk factors for sport-related injuries. She integrates biomechanics principles with physiology to provide an all-round perspective on improving performance and mitigating injury risk in female athletes. Dr. Desai's research complements human subject experiments with insights from computer modeling and simulation, to answer research questions that are challenging to address via human subject research studies alone. Beyond research, she is an active contributor to the sports science community through mentorship and advocacy for women in sport.

STANFORD ADVISORS

- Scott Delp, Postdoctoral Faculty Sponsor

Teaching

GRADUATE AND FELLOWSHIP PROGRAM AFFILIATIONS

- Bioengineering (Phd Program)

Publications

PUBLICATIONS

- **Age and running experience influence shock attenuation during human running.** *Journal of science and medicine in sport*
  Desai, G. A., Rosenberg, M., Gruber, A. H.
  2025

- **Impaired neuromusculoskeletal response to training stimuli associated with low energy availability: a systematic review.** *British journal of sports medicine*
  DeJong Lempke, A. F., Smulligan, K. L., Desai, G. A., Hagan, K. E., Oldham, J. R., Islam, L. Z., Whitney, K. E.
  2025

- **Greater external negative mechanical work is accompanied by a greater metabolic cost of walking for socket-suspended versus bone-anchored prosthesis users with transfemoral limb loss.** *Clinical biomechanics (Bristol, Avon)*
  Desai, G. A., Pope, J. R., Ezeajughi, C., Shim, J. K., Miller, R. H.
  2025; 127: 106598

- **Inconsistent Effects of Experience on Running Biomechanics May be Influenced by Study Heterogeneity and Classification Criteria: a Systematic Review and Proposal of a Revised Taxonomy** *SPORTS MEDICINE-OPEN*
  Rabello, R., Desai, G. A., Gruber, A. H.
  2025; 11 (1): 69

- **Running stiffness and spatiotemporal parameters are similar between non-runners and runners with different experience levels.** *Sports biomechanics*
  Rabello, R., Desai, G. A., Sforza, C., Gruber, A. H.
  2025: 1-15
- **Joint Biomechanics In Transfemoral Amputees With A Socket-based Versus Osseointegrated Prosthesis: A Pilot Study**
  Desai, G. A., Pope, J. R., Shim, J. K., Miller, R. H.
  LIPPINCOTT WILLIAMS & WILKINS.2024: 573-574
- **Gender Differences In Cumulative Knee Loading During Walking And Running**
  Snyder, S. J., Fakhar, M., Desai, G. A., Shim, J., Miller, R. H.
  LIPPINCOTT WILLIAMS & WILKINS.2024: 245
- **Sex differences in body composition and shock attenuation during running.** *Journal of biomechanics*
  Desai, G. A., DeJong Lempke, A. F., Harezlak, J., Gruber, A. H.
  2024; 173: 112245
- **Shock Attenuation May Be Influenced By Body Composition In Human Running**
  Desai, G. A., Gruber, A. H., Rosenberg, M.
  LIPPINCOTT WILLIAMS & WILKINS.2023: 826-827
- **Weekly Moderate-to-vigorous Physical Activity And Biomechanical Plasticity Among Active Adults: A Prospective Study**
  Desai, G. A., Gruber, A. H.
  LIPPINCOTT WILLIAMS & WILKINS.2022: 186
- **Bilateral differences in coordination variability among injured and uninjured runners: A prospective study.** *Journal of biomechanics*
  Desai, G. A., Gruber, A. H.
  2022; 132: 110938
- **Segment coordination and variability among prospectively injured and uninjured runners.** *Journal of sports sciences*
  Desai, G. A., Gruber, A. H.
  2021; 39 (1): 38-47
- **Assessing Between-limb Differences In Prospectively Injured And Uninjured Runners Using Dynamical Measures Of Gait**
  Desai, G. A., Gruber, A. H.
  LIPPINCOTT WILLIAMS & WILKINS.2020: 718