

# Stanford

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## Geoffrey Riley

Clinical Professor, Radiology

### CLINICAL OFFICE (PRIMARY)

- **Dept Of Radiology**

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### ACADEMIC CONTACT INFORMATION

- **Alternate Contact**

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## Bio

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### BIO

Geoffrey Riley is a diagnostic radiologist specializing in musculoskeletal imaging.

His focus is on orthopedic imaging including sports injuries, trauma, and musculoskeletal tumors. He has a special interest in innovative methods of teaching and forensic radiology.

Dr. Riley strives to develop teaching methods that go beyond the traditional lectures where trainees play a passive role. With his experience in serving as an expert witness in numerous civil cases, he has a special interest in educating trainees in medico-legal matters. He serves on the Medical Board of California as an expert reviewer, providing input on the standard of care for radiology.

As the radiology liaison of Stanford Hospital's Sarcoma Tumor Board, he provides input on the care of patients with soft tissue, spine and bone tumors.

He is an active member of the Radiological Society of North America, the Society of Skeletal Radiology, and the American Roentgen Ray Society for which he is chair of the Scientific Program and Educational Exhibit Subcommittees. Dr. Riley serves on the American Board of Radiology Diagnostic Radiology Core MSK Committee as a test question writer.

As a manuscript reviewer for Skeletal Radiology, he reviews submitted articles and advises the editors of these journals on which submitted papers should be accepted for publication.

Dr. Riley is board certified by the American National Board of Medical Examiners and by the American Board of Radiology.

### CLINICAL FOCUS

- Diagnostic Radiology

- Musculoskeletal Diseases
- Orthopedic Radiology
- Sarcoma
- Spine imaging
- Sports Injuries
- Soft Tissue Tumors
- Magnetic Resonance Imaging MRI
- Bone Tumors

## ACADEMIC APPOINTMENTS

- Clinical Professor, Radiology

## BOARDS, ADVISORY COMMITTEES, PROFESSIONAL ORGANIZATIONS

- Educational Exhibit Subcommittee, American Roentgen Ray Society (2014 - present)
- Scientific Program Subcommittee, American Roentgen Ray Society (2014 - present)
- Manuscript Reviewer, American Journal of Roentgenology (2014 - 2020)
- Manuscript Reviewer, Skeletal Radiology (2014 - present)

## PROFESSIONAL EDUCATION

- Fellowship: UC Davis Dept of Radiology (1998) CA
- Residency: UC Davis Radiology Residency (1997) CA
- Internship: Creighton University Internal Medicine (1993) NE
- Medical Education: Creighton University School of Medicine Registrar (1992) NE
- Board Certification: Diagnostic Radiology, American Board of Radiology (1997)

## LINKS

- MSK section website: <http://med.stanford.edu/msk.html>

## Research & Scholarship

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### CURRENT RESEARCH AND SCHOLARLY INTERESTS

MSK tumors, sarcomas, bone tumors, soft tissue tumors.

## Publications

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### PUBLICATIONS

- **Society of Skeletal Radiology- white paper. Guidelines for the diagnostic management of incidental solitary bone lesions on CT and MRI in adults: bone reporting and data system (Bone-RADS). *Skeletal radiology***  
Chang, C. Y., Garner, H. W., Ahlawat, S., Amini, B., Bucknor, M. D., Flug, J. A., Khodarahmi, I., Mulligan, M. E., Peterson, J. J., Riley, G. M., Samim, M., Lozano-Calderon, S. A., Wu, et al  
2022
- **MR Imaging of Benign Soft Tissue Tumors: Highlights for the Practicing Radiologist. *Radiologic clinics of North America***  
Riley, G. M., Kwong, S., Steffner, R., Boutin, R. D.  
2022; 60 (2): 263-281
- **Automating Scoliosis Measurements in Radiographic Studies with Machine Learning: Comparing Artificial Intelligence and Clinical Reports. *Journal of digital imaging***

Ha, A. Y., Do, B. H., Bartret, A. L., Fang, C. X., Hsiao, A., Lutz, A. M., Banerjee, I., Riley, G. M., Rubin, D. L., Stevens, K. J., Wang, E., Wang, S., Beaulieu, et al 2022

● **Soft tissue pathology for the radiologist: a tumor board primer with 2020 WHO classification update.** *Skeletal radiology*

Kuhn, K. J., Cloutier, J. M., Boutin, R. D., Steffner, R., Riley, G.  
2020

● **Capsular thinning on magnetic resonance arthrography is associated with intra-operative hip joint laxity in women.** *Journal of hip preservation surgery*

Packer, J. D., Foster, M. J., Riley, G. M., Stewart, R., Shibata, K. R., Richardson, M. L., Boutin, R. D., Safran, M. R.  
2020; 7 (2): 298–304

● **Human-machine partnership with artificial intelligence for chest radiograph diagnosis.** *NPJ digital medicine*

Patel, B. N., Rosenberg, L. n., Willcox, G. n., Baltaxe, D. n., Lyons, M. n., Irvin, J. n., Rajpurkar, P. n., Amrhein, T. n., Gupta, R. n., Halabi, S. n., Langlotz, C. n., Lo, E. n., Mammarappallil, et al  
2019; 2: 111

● **Erratum: Author Correction: Human-machine partnership with artificial intelligence for chest radiograph diagnosis.** *NPJ digital medicine*

Patel, B. N., Rosenberg, L. n., Willcox, G. n., Baltaxe, D. n., Lyons, M. n., Irvin, J. n., Rajpurkar, P. n., Amrhein, T. n., Gupta, R. n., Halabi, S. n., Langlotz, C. n., Lo, E. n., Mammarappallil, et al  
2019; 2: 129

● **Author Correction: Human-machine partnership with artificial intelligence for chest radiograph diagnosis.** *NPJ digital medicine*

Patel, B. N., Rosenberg, L. n., Willcox, G. n., Baltaxe, D. n., Lyons, M. n., Irvin, J. n., Rajpurkar, P. n., Amrhein, T. n., Gupta, R. n., Halabi, S. n., Langlotz, C. n., Lo, E. n., Mammarappallil, et al  
2019; 2 (1): 129

● **The Cliff Sign: A New Radiographic Sign of Hip Instability** *ORTHOPAEDIC JOURNAL OF SPORTS MEDICINE*

Packer, J. D., Cowan, J. B., Rebollo, B. J., Shibata, K. R., Riley, G. M., Finlay, A. K., Safran, M. R.  
2018; 6 (11): 2325967118807176

● **Deep-learning-assisted diagnosis for knee magnetic resonance imaging: Development and retrospective validation of MRNet.** *PLoS medicine*

Bien, N., Rajpurkar, P., Ball, R. L., Irvin, J., Park, A., Jones, E., Bereket, M., Patel, B. N., Yeom, K. W., Shpanskaya, K., Halabi, S., Zucker, E., Fanton, et al  
2018; 15 (11): e1002699

● **Extreme Sports Injuries to the Pelvis and Lower Extremity** *RADIOLOGIC CLINICS OF NORTH AMERICA*

Sukerkar, P., Fast, A. M., Riley, G.  
2018; 56 (6): 1013-+

● **Deep-learning-assisted diagnosis for knee magnetic resonance imaging: Development and retrospective validation of MRNet** *PLOS MEDICINE*

Bien, N., Rajpurkar, P., Ball, R. L., Irvin, J., Park, A., Jones, E., Bereket, M., Patel, B. N., Yeom, K. W., Shpanskaya, K., Halabi, S., Zucker, E., Fanton, et al  
2018; 15 (11)

● **Extreme Sports Injuries to the Pelvis and Lower Extremity.** *Radiologic clinics of North America*

Sukerkar, P. A., Fast, A. M., Riley, G.  
2018; 56 (6): 1013–33

● **Extraskeletal osteosarcoma of the hand: the role of marginal excision and adjuvant radiation therapy.** *Hand (New York, N.Y.)*

Casey, D. L., van de Rijn, M., Riley, G., Tung, K., Mohler, D. G., Donaldson, S. S.  
2015; 10 (4): 602-606

● **Approach to MR Imaging of the Elbow and Wrist: Technical Aspects and Innovation.** *Magnetic resonance imaging clinics of North America*

Johnson, D., Stevens, K. J., Riley, G., Shapiro, L., Yoshioka, H., Gold, G. E.  
2015; 23 (3): 355-366

● **MRI of the Hip for the evaluation of femoroacetabular impingement; past, present, and future.** *Journal of magnetic resonance imaging : JMRI*

Riley, G. M., McWalter, E. J., Stevens, K. J., Safran, M. R., Lattanzi, R., Gold, G. E.  
2015; 41 (3): 558-572

● **MRI of the Hip for the Evaluation of Femoroacetabular Impingement; Past, Present, and Future** *JOURNAL OF MAGNETIC RESONANCE IMAGING*

Riley, G. M., McWalter, E. J., Stevens, K. J., Safran, M. R., Lattanzi, R., Gold, G. E.  
2015; 41 (3): 558–72

● **Foot and ankle injuries in sport: imaging correlation with arthroscopic and surgical findings.** *Clinics in sports medicine*

Hunt, K. J., Githens, M., Riley, G. M., Kim, M., Gold, G. E.  
2013; 32 (3): 525-557

● **Hip-femoral acetabular impingement.** *Clinics in sports medicine*

Anderson, C. N., Riley, G. M., Gold, G. E., Safran, M. R.  
2013; 32 (3): 409-425

● **Magnetic Resonance Arthrography** *RADIOLOGIC CLINICS OF NORTH AMERICA*

Chundru, U., Riley, G. M., Steinbach, L. S.  
2009; 47 (3): 471-?

● **Magnetic resonance imaging in the evaluation of sports injuries of the foot and ankle - A pictorial essay** *JOURNAL OF THE AMERICAN PODIATRIC MEDICAL ASSOCIATION*

Riley, G. M.  
2007; 97 (1): 59-67

● **Magnetic resonance imaging of sports injuries of the elbow.** *Topics in magnetic resonance imaging*

Thornton, R., Riley, G. M., Steinbach, L. S.  
2003; 14 (1): 69-86

● **Intraosseous lipoma of the calcaneus** *FOOT & ANKLE INTERNATIONAL*

Greenspan, A., Raiszadeh, K., RILEY, G. M., MATTHEWS, D.  
1997; 18 (1): 53-56

● **Fibrous dysplasia of a parietal bone** *JOURNAL OF COMPUTER ASSISTED TOMOGRAPHY*

RILEY, G. M., Greenspan, A., Poirier, V. C.  
1997; 21 (1): 41-43

## PRESENTATIONS

- Hip MR Arthrography: Are we Underdiagnosing Synovitis and Laxity Pre-operatively? - Society of Skeletal Radiology (March 2015)