



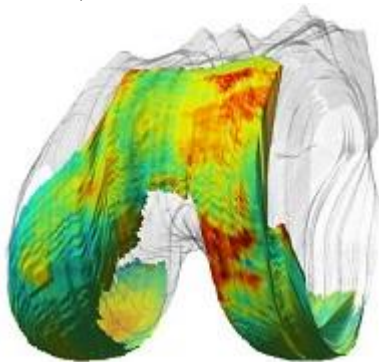
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Associate Professor Richard Souza, PT, PhD [1] was recently featured in a UCSF Newsbreak article about a groundbreaking new imaging technique called quantitative magnetic resonance imaging (qMRI). He's part of a team of researchers called the Musculoskeletal Quantitative Imaging Research Interest Group (MQIR) [2] who are utilizing this technology.

An excerpt from the article:

Like standard MRI, qMRI uses magnetic fields and sequences of radiofrequency pulses to measure changes in the hydrogen atoms in our bodies ? different tissues produce different signals. But while standard MRI produces essentially qualitative images that then must be interpreted by a radiologist, qMRI uses specialized programming to extract quantifiable values out of the image itself.

These values are then translated into color scale ? producing full color, information-rich images, with red indicating areas of degenerating cartilage.

The technology can detect the early signs of disease in cartilage, including decreased proteoglycan content, increased water content and weakening of the collagen matrix.

?It?s extremely valuable to be able to quantify cartilage composition, because subtle composition changes are reversible,? said Richard Souza, PhD, PT, associate professor of physical therapy. ?QMRI allows you to look at cartilage in a healthy enough stage when you can still reverse the damage. That opens up a whole world of interventions.?

For the full article about this exciting breakthrough and more about Dr. Souza's and the team's

work, [click here](#) [3].

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Links

[1] <https://ptrehab.ucsf.edu/richard-souza-pt-phd>

[2] <https://radiology.ucsf.edu/research/labs/musculoskeletal-quantitative-imaging>

[3] <http://www.ucsf.edu/news/2016/11/404791/qmri-sees-cartilage-damage-its-too-late>