

Radiologists play key role in teaching physiology to medical students

February 1 2011

In order for medical students to ultimately provide quality patient care medical schools should turn to radiologists to help them teach physiology, one of the core disciplines of medicine, according to a study in the February issue of the *Journal of the American College of Radiology*. Physiology is the science of the function of living systems.

"It is vital that medical schools provide first-rate [physiology](#) education for their students. We believe that [radiologists](#) have an important role to play in teaching physiology, just as many currently do in the teaching of [anatomy](#)," said Richard B. Gunderman, MD, co-author of the study.

Radiologists created radiologic case studies using pairs of radiologic cases, one illustrating normal physiology and the second illustrating pathophysiology. The two radiologic images (normal and pathophysiology) were then used to focus on four broad physiologic principles that apply across all organ systems — homeostasis, biologic energy use, structure-function relationships, and communication. Two examples were given for each of the principles.

"Radiologic case studies can illustrate physiologic principles in ways that can enhance students' grasp of both physiology and its role in helping physicians take better care of patients. As our study suggests, two radiologic examples of each principle (normal and pathologic) support the use of radiology to teach physiology," said Gunderman.

"An understanding of physiology is absolutely vital to the ability to

diagnose and treat diseases effectively and efficiently, and it is equally vital that future physicians receive a first-rate education in this discipline. As clinicians, radiologists can help students to appreciate the clinical relevance of their studies, and radiologic images provide powerful, visual illustrations of basic physiologic principles," he said.

More information: www.jacr.org

Provided by American College of Radiology

Citation: Radiologists play key role in teaching physiology to medical students (2011, February 1) retrieved 10 April 2024 from

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