

RSNA Leads the Field in AI Innovation and Education

The Radiological Society of North America (RSNA) leads the way in providing the knowledge, training and community radiology professionals need to understand the role of artificial intelligence (AI) in medical imaging and the implications it has for radiology practice.

The [RSNA AI Certificate Program](#)—the first-ever radiology-specific AI certificate program—blends a case-based curriculum with practical application and delivers a pathway for all radiologists to understand how to leverage AI for their practices and careers.

RSNA's peer-reviewed journal, [Radiology: Artificial Intelligence](#), highlights emerging AI research in the field of imaging across multiple disciplines.

RSNA's AI Community allows imaging professionals and AI researchers to connect and discuss AI advances and challenges, while RSNA's comprehensive education program offers live and online AI learning opportunities throughout the year.

RSNA 2022 AI HIGHLIGHTS

RSNA 2022 has an abundance of papers, posters, courses and education exhibits spotlighting AI and machine learning applications.

Imaging AI in Practice Demonstration

The [Imaging AI in Practice](#) (IAIP) demonstration is an interoperability demonstration that takes place during the RSNA annual meeting to showcase new technologies and communication standards needed to integrate artificial intelligence (AI) into the diagnostic radiology workflow. The demonstration uses real-world clinical scenarios and interoperability standards to demonstrate new tools and practice enhancements enabled by AI. It includes many steps in the radiology workflow where AI can assist the radiologist and improve the efficiency and quality of care.

The diagrams linked here give a visual overview of the flow of information among systems in a radiology practice with AI tools integrated:

- [Imaging AI Workflow](#)
- [Post-Imaging AI Workflow](#)

AI Challenge

RSNA organizes [AI challenges](#) to spur the creation of AI tools for radiology. This year's challenge focuses on cervical spine fractures. The [RSNA Cervical Spine Fracture AI Challenge](#) explores whether AI can be used to aid in the detection and localization of cervical spine injuries.

To create the ground truth dataset, the challenge planning task force collected imaging data sourced from 12 sites on six continents, including more than 1,400 CT exams with diagnosed cervical spine fractures, and an approximately equal number of negative exams. Spine radiology specialists from the ASNR and ASSR provided expert image level annotations to these images to indicate the presence, vertebral level and location of any cervical spine fractures.

For the challenge competition, contestants aimed to develop machine learning models that match the radiologists' performance in detecting and localizing fractures within the seven vertebrae that comprise the cervical spine. Winners will be recognized on Monday, Nov. 28, in the AI Showcase.

AI Showcase

The [AI Showcase](#) is the center of all the latest imaging AI technology at RSNA 2022. Connect with industry leaders and visit more than 100 exhibitor booths to see new products and technical solutions in action.

AI Theater

Watch AI come to life in the [AI Theater](#). Located in the AI Showcase, attendees can view daily industry presentations from companies highlighting the innovations fueling the future of AI.