

# Most radiation oncologists utilize advanced medical imaging techniques, study suggests

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A recent study shows that 95 percent of radiation oncologists use advanced imaging techniques such as positron emission tomography (FDG-PET), magnetic resonance imaging (MRI), and 4-dimensional computed tomography (4DCT) for target delineation (to locate the tumor and other areas at risk for having cancer), according to an article in the December issue of the *Journal of the American College of Radiology*, (JACR).

In defining the target, the radiation oncologist draws upon a number of sources, including physical examination, operative and pathology reports, and knowledge of the patterns of tumor spread and failure. Imaging, however, is perhaps the single most important tool to guide target definition.

The study included a survey of 386 respondents which assessed the utilization of advanced imaging modalities for target delineation. "We found that 95 percent of physicians surveyed were using advanced imaging technologies in their practice, including nearly 50 percent using novel techniques like 4DCT" said Loren K. Mell, M.D., lead author of the study. "FDG-PET and MRI were the most common technologies used, with nearly 75 percent of respondents using one or both," said Mell.

"Our survey provides important information regarding the current state of technology utilization in the [radiation oncology](#) community," he said.

"Utilization of advanced imaging technologies for target delineation appears to have increased significantly in recent years and the frequency of utilization is expected to increase even further," said Mell.

More information: [www.jacr.org](http://www.jacr.org)

Source: American College of Radiology

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