

Ultrasound fusion imaging provides comparable accuracy for bone, soft tissue tumors

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Biopsies using ultrasound fusion imaging for detecting bone and soft tissue cancers are safe, effective and just as accurate as conventional biopsy methods, according to a Henry Ford Hospital study.

Researchers found that the ultrasound fusion imaging technique guides a [needle biopsy](#) with precise accuracy and ease, while making the biopsy experience more convenient for patients.

Ultrasound fusion merges real-time ultrasound images with previously acquired computed tomography or [magnetic resonance imaging](#) scans, providing physicians with high resolution, life-like imaging to identify the area for biopsy.

This is the first time researchers compared the safety and efficacy of ultrasound fusion against conventional biopsy imaging tools like CT or MRI.

The study's findings will be presented at the annual meeting of the American Academy of Orthopaedic Surgeons Feb. 15-18 in San Diego.

"Ultrasound fusion is a viable option to consider for patients," says Michael Mott, M.D., an orthopaedic oncologist at Henry Ford and principal investigator for the study. "With imaging precision being equal, patients liked the ultrasound fusion because scheduling a biopsy was found to be more flexible for ultrasound suites than CT suites."

Bone and soft tissue cancers account for a small number of cancer cases. According to the National Cancer Institute, about less than 1 percent of all new cancer cases occur each year in the United States.

Henry Ford researchers compared the results of 44 patients from January to December in 2010 who

were randomized into one of two groups: those who received an ultrasound fusion biopsy and those who received a CT biopsy. Researchers also looked at the time and ease of obtaining the biopsy and outcomes.

Dr. Mott says the accuracy for obtaining the ultrasound fusion biopsy was 93 percent compared to 90 percent for obtaining the CT biopsy. Researchers also found that the ultrasound fusion was as safe and effective as the CT biopsy.

Provided by Henry Ford Health System

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