

Teens with breast lumps may be able to avoid invasive biopsy

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If a lump is found in the breast of an adolescent girl, she often will undergo an excisional biopsy. However, breast cancer is rare in adolescents, and the vast majority of teenage breast lumps turn out to be benign masses that are related to hormones and often go away over time.

A recent Loyola University Health System study published in the *Journal of Ultrasound in Medicine* suggests that a breast ultrasound examination might eliminate the need for biopsy in many cases.

Loyola radiologists studied 37 teen girls with a total of 45 [breast lumps](#) to determine whether the size of their breast mass at an initial ultrasound and their growth at a follow-up ultrasound could be used to decide between conservative management of the lump or a more invasive tissue biopsy.

The girls were divided into three groups. The breast masses in group one (n = 9) underwent a follow-up ultrasound and a biopsy. Group two (n = 13) masses only had a biopsy and group three (n = 23) masses underwent a follow-up ultrasound with no biopsy. None of the lumps showed changes in appearance at the follow-up ultrasound, and all biopsied lumps were benign.

Other factors were studied, including lump dimension, volume and volume change. The researchers concluded that if only those breast masses with a largest dimension greater than 3 cm and a volume change per month greater than 16 percent had undergone biopsies then the

biopsies could have been reduced in 89 percent of girls in group one and 96 percent in group three of their patients.

"These findings suggest that if at a follow-up [breast ultrasound](#), if a benign appearing breast mass does not meet the combined criteria of largest dimension greater than 3 cm and volume change per month greater than 16 percent then it need not undergo biopsy," said lead author Aruna Vade, MD, a professor in the Department of Radiology at Loyola University Chicago Stritch School of Medicine.

In an excisional [biopsy](#), the surgeon makes an incision along the contour of the breast and removes the lump. However, this procedure can result in pain, scarring and breast deformity.

Vade and her colleagues recommend that excisional biopsies be reserved for solid breast masses that are sonographically suspicious for malignancy or [breast](#) masses or show progressive growth or are found in patients who have a known primary malignant tumor or family history of cancer

Provided by Loyola University Health System

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