What Ultrasound and Mammograms May Show

Mammograms may show the lump in question and provide some clues as to its nature. A metal marker is taped to the skin of the breast over the lump to assist this evaluation and special mammogram views are taken of the area in question.

More importantly, however, the mammogram allows assessment of tissue elsewhere in both breasts for possible abnormalities which are non-palpable. Breast ultrasound is frequently more informative than mammography in breast lump evaluation. If ultrasound shows a simple cyst, no further diagnosis or treatment is usually necessary, unless the lump is tender or painful.

Some complex cysts and solid lumps have overlapping ultrasound features and require further investigation by removal of tissue for laboratory analysis. Removal of fluid is called an aspiration and removal of tissue a biopsy. If the affected area is well-demonstrated using ultrasound or mammography these images can be used to allow a radiologist to precisely guide a needle into the lump removing either fluid, or cores of tissue for microscopic analysis. Alternately, the entire lump can be removed in a surgical operation.
The Lumpy Breast

“Lumpiness” is a term frequently used to describe the palpable texture of the breast in many women. This is usually due to prominent normal milk glands, ducts and the fibrous supporting tissue which surrounds these structures. This lumpiness may vary from fine irregularities to more coarse and nodular alterations in breast texture and is most prominent in the upper outer and underside areas of the breast. Such findings are frequently cyclical, changing during the menstrual cycle as normal breast tissue reacts and responds to the fluctuating influence of normal female hormones (estrogen and progesterone). Such lumpiness may be associated with cyclical pain or discomfort (see our pamphlet entitled “Breast Pain”).

For many years women with lumpy breasts have been diagnosed with “fibrocystic disease”. This term is both unfortunate and erroneous. Most such women do not have prominent cysts and any condition affecting at least half of normal women should not be considered a “disease.” Mammograms and ultrasound examinations of areas of lumpiness are most often normal. There are no effective treatments and none are needed for this essentially normal variation in breast texture. We urge all women to learn and regularly practice breast self-examination so that they can become familiar with the texture and cyclic variation of their own breasts.

The Breast Lump

A breast lump as distinguished from the “lumpiness” discussed above, will feel different especially to the women practicing regular breast self-examination. Lumps are frequently not a subtle finding for women experienced at breast self-examination. They usually feel more discrete and stand out from the surrounding tissue.

Many doctors will insert a thin needle into the lump for diagnosis in their office. If the lump is a fluid filled cyst this procedure can both diagnose and treat the lump by removal of cyst fluid and cause the lump to disappear. If no fluid is extracted the needle contents can be sent for laboratory analysis (fluid needle aspiration cytology).

Breast ultrasound can both find lumps and distinguish between fluid-filled (cysts) and solid lumps (see our pamphlet entitled “Breast Cysts”). When a woman is referred to Baylor Women’s Imaging Center with an undiagnosed breast lump, an ultrasound examination will usually be performed.

For young women for whom a mammogram may not be appropriate, the ultrasound examination may be the only test needed.

The Palpable Lump with a Normal Mammogram and Ultrasound

Sometimes a palpable lump cannot be seen on either the mammogram or the ultrasound images. This suggests that the lump is a benign process and may be formed by normal breast tissue.

Occasionally, however, a real breast lump may not be seen with either mammograms or ultrasound. Although these normal imaging tests are reassuring, continued monitoring of the palpable area by the woman herself and by her doctor is essential. Examination by a surgeon is recommended for any persistent or enlarging lump despite normal mammograms and ultrasound tests.