

High Risk Factors for Breast Cancer (American Cancer Society)

- Patients with a known BRCA mutation.
- First degree relatives of a BRCA carrier, but untested.
- Patients with >20% lifetime risk (Gail model risk calculator).
- Patients with radiation to chest between ages 10-30 yrs.
- Patients with Li-Fraumeni, Cowden and Bannayan-Riley-Ruvalcaba syndromes and first degree relatives.

Imaging Guidelines for High Risk Patients

- Annual screening digital mammography.
- Annual screening MRI.
- Recommend alternating at 6 month intervals to maximize earliest detection of cancer.
- Per the American Cancer Society, imaging should begin at age 30 and continue for as long as patient is in good health.

Moderate Risk Factors for Breast Cancer (American Cancer Society)

- Patients with 15-20% lifetime risk (Gail model risk calculator).
- Personal history of breast cancer, DCIS, LCIS and abnormal breast cell changes such as ADH and ALH.
- Patients with extremely dense breasts on mammography. (Category D)

Imaging Guidelines for Moderate Risk Patients

The ACS now recommends that women at moderate increased risk of breast cancer, 15-20%, talk with their doctors about the possibility of adding breast MRI to their yearly screening. This includes women with a personal history of breast cancer, DCIS, LCIS, atypia (ADH & ALH) and women with extremely dense breasts.

- Annual screening digital mammography.
- Consider adding annual screening MRI.
- Recommend alternating at 6 month intervals to maximize earliest detection of cancer.
- If annual screening MRI is not performed, recommend annual screening US.
- Imaging should begin at age 40 and continue for as long as patient is in good health

Low Risk Factors for Breast Cancer (American Cancer Society)

- Patients with less than 15% lifetime risk (Gail model risk calculator).

Imaging Guidelines for Low Risk Patients

- For those patients with heterogeneously dense breasts on mammography (Category C), annual screening mammography and consideration of adding annual screening US is recommended.
- For those patients with predominantly fatty breasts on mammography (Category A) or with scattered fibroglandular densities on mammography (Category B), annual screening mammography is recommended.
- Imaging should begin at age 40 and continue for as long as patient is in good health.

Molecular Imaging and Tomosynthesis

- While molecular imaging such as BSGI or 3D Tomosynthesis can be used, the radiation dose should be taken into account. The radiation dose for BSGI is 10-30 times that of mammography and for Tomosynthesis is 2-4 times that of mammography.