Localized	<ul><li>Stage I</li><li>Stage IIa</li></ul>	<ul> <li>Localized tumor (&lt; 5 cm)</li> <li>≤ 3 nodes involved, including the sentinel lymph node</li> </ul>	• 99%
Regional	<ul><li>Stage IIb</li><li>Stages IIIa-IIIc</li></ul>	<ul> <li>Large tumor (&gt; 5 cm)</li> <li>Regional lymph node involvement</li> <li>No distant metastases</li> </ul>	• 86%
Distant	Stage IV	Distant metastases	• 27%

## **Prevention**

## **Breast cancer screening**

- Women with first-degree relatives with breast cancer should begin screening 10 years before the age of the earliest diagnosis in the family.
- Physical examination plays a minor role in screening for breast cancer.

Screening recommendations for women with an average risk of breast cancer [37][38]					
Age	USPSTF [39]	American Cancer Society [40]	ACOG [41]		
40-49 years	<ul> <li>The decision should be an individual one.</li> <li>If the potential benefits (e.g.,</li> </ul>	<ul> <li>40-44 years: can choose to start annual mammography screening</li> </ul>	Annual     mammography     screening and     clinical breast     exams		
	early diagnosis) outweigh the potential harms (e.g., radiation exposure)	• 45-49 years: should start annual mammography screening			

## Screening recommendations for women with an average risk of breast cancer [37][38]

Age	USPSTF [39]	American Cancer Society [40]	ACOG [41]		
50-75 years	Mammography screening every 2 years	• 50-54 years: annual mammography screening	Annual     mammography     screening and     clinical breast     exams		
		<ul> <li>&gt; 55 years:         mammography         screening every         2 years or         continue annual         screening if         desired</li> </ul>			
> <b>75</b> years	No sufficient data if benefits outweigh harm in this patient group	• Continue screening as long as the patient is physically well and expected to live for > 10 years.	Can continue or discontinue mammography screening		
Screening recommendations for women with a high risk of breast cancer					
N/A	Begin screening at ~ 40 years of age	<ul> <li>Annual MRI and mammography screening, starting at age 30</li> </ul>	<ul> <li>Clinical breast exams every 2 years</li> <li>Annual MRI and mammography</li> </ul>		

- Individuals with the following risk factors are considered at high risk:
  - Known BRCA mutation
  - $\circ$  First-degree relative with a BRCA mutation
  - Lifetime risk for breast cancer of about 20–25%

- Women who have a family history of breast cancer
- Women with a history of chest radiation therapy (between 10–30 years of age)
- Women with a personal or family history of <u>familial cancer syndromes</u> (e.g., Li-Fraumeni syndrome, Cowden syndrome)
- Women ≥ 35 years of age with previous invasive breast cancer or carcinoma in situ

## **Prevention measures for high-risk individuals**

- Prophylactic surgery
  - Bilateral prophylactic mastectomy
  - Bilateral <u>salpingo-oophorectomy</u> (BSO) by age 35–40 years and/or when childbearing is no longer desired
- Alternative: chemoprevention with selective estrogen receptor modulator
  - In high-risk premenopausal women: tamoxifen
  - In high-risk postmenopausal women
    - Tamoxifen or raloxifene
    - Aromatase inhibitors (e.g., anastrozole, exemestane): monotherapy or in sequence with SERM

