

**Table I. TNM Staging of Breast Cancer**

Definitions TNM

<b><i>Primary Tumor (T)</i></b>	
TX	Primary tumor cannot be assessed
T0	No evidence of primary tumor
Tis	Carcinoma <i>in situ</i>
Tis (DCIS)	Ductal carcinoma <i>in situ</i>
Tis (LCIS)	Lobular carcinoma <i>in situ</i>
Tis (Paget's)	Paget's disease of the nipple is NOT associated with invasive carcinoma and/or carcinoma in situ (DCIS and/or LCIS) in the underlying breast parenchyma. Carcinomas in the breast parenchyma associated with Paget's disease are categorized based on the size and characteristics of the parenchymal disease, although the presence of Paget's disease should still be noted
T1	Tumor $\leq 20$ mm in greatest dimension
T1mi	Tumor $\leq 1$ mm in greatest dimension
T1a	Tumor $> 1$ mm but $\leq 5$ mm in greatest dimension
T1b	Tumor $> 5$ mm but $\leq 10$ mm in greatest dimension
T1c	Tumor $> 10$ mm but $\leq 20$ mm in greatest dimension
T2	Tumor $> 20$ mm but $\leq 50$ mm in greatest dimension
T3	Tumor $> 50$ mm in greatest dimension
T4	Tumor of any size with direct extension to the chest wall and/or to the skin (ulceration or skin nodules)*
T4a	Extension to the chest wall, not including only pectoralis muscle adherence/invasion
T4b	Ulceration and/or ipsilateral satellite nodules and/or edema (including peau d'orange) of the skin which do not meet the criteria for inflammatory carcinoma

T4c	Both T4a and T4b
T4d	Inflammatory carcinoma**
<p>*Invasion of the dermis alone does not qualify as T4.</p> <p>**Inflammatory carcinoma is restricted to cases with typical skin changes involving a third or more of the skin of the breast. While the histologic presence of invasive carcinoma invading dermal lymphatics is supportive of the diagnosis, it is not required, nor is dermal lymphatic invasion without typical clinical findings sufficient for a diagnosis of inflammatory breast cancer.</p>	

<b>Regional Lymph Nodes (N)</b>	
NX	Regional lymph nodes cannot be assessed (e.g., previously removed)
pNx	Regional lymph nodes cannot be assessed (e.g., previously removed, or not removed for pathologic study)
N0	No regional lymph node metastases
pN0	No regional lymph node metastasis identified histologically
pN0(i-)	No regional lymph node metastases histologically, negative IHC
pN0(i+)	Malignant cells in regional lymph node(s) no greater than 0.2 mm (detected by H&E or IHC including ITC)
pN0(mol-)	No regional lymph node metastases histologically, negative molecular findings (RT-PCR)
pN0(mol+)	Positive molecular findings (RT-PCR), but no regional lymph node metastases

	detected by histology or IHC
N1	Metastases to movable ipsilateral level I, II axillary lymph node(s)
pN1	Micrometastases; or metastases in 1 to 3 axillary lymph nodes; and/or in internal mammary nodes with metastases detected by sentinel lymph node biopsy but not clinically detected**
pN1mi	Micrometastases (greater than 0.2 mm and/or more than 200 cells, but none greater than 2.0 mm)
pN1a	Metastases in 1 to 3 axillary lymph nodes, at least one metastasis greater than 2.0 mm
pN1b	Metastases in internal mammary nodes with micrometastases or macrometastases detected by sentinel lymph node biopsy but not clinically detected**
pN1c	Metastases in 1 to 3 axillary lymph nodes and in internal mammary lymph nodes with micrometastases or macrometastases detected by sentinel lymph node biopsy but not clinically detected**
N2	Metastases in ipsilateral level I, II axillary lymph nodes that are clinically fixed or matted; or in clinically detected* ipsilateral internal mammary nodes in the absence of clinically evident axillary lymph node metastases
pN2	Metastases in 4 to 9 axillary lymph nodes; or in clinically detected*** internal mammary lymph nodes in the <i>absence</i> of axillary lymph node metastases
N2a	Metastases in ipsilateral axillary lymph nodes fixed to one another (matted) or to other structures
pN2a	Metastases in 4 to 9 axillary lymph nodes (at least one tumor deposit greater than 2.0 mm)
N2b	Metastases only in clinically detected** ipsilateral internal mammary nodes and in the <i>absence</i> of clinically evident axillary lymph node metastases
pN2b	Metastases in clinically detected*** internal mammary lymph nodes in the <i>absence</i> of axillary lymph node metastases
N3	Metastases in ipsilateral infraclavicular (level III axillary) lymph node(s) with or without level I, II axillary lymph node involvement; or in clinically detected* ipsilateral internal mammary lymph node(s) with clinically evident level I, II axillary lymph node metastases; or metastases in ipsilateral supraclavicular

	lymph node(s) with or without axillary or internal mammary lymph node involvement
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pN3	Metastases in 10 or more axillary lymph nodes; or in infraclavicular (level III axillary) lymph nodes; or in clinically detected*** ipsilateral internal mammary lymph nodes in the presence of 1 or more positive level I, II axillary lymph nodes; or in more than 3 axillary lymph nodes and in internal mammary lymph nodes with micrometastases or macrometastases detected by sentinel lymph node biopsy but not clinically detected**; or in ipsilateral supraclavicular lymph nodes
pN3a	Metastases in ipsilateral infraclavicular lymph node(s)
pN3b	Metastases in 10 or more axillary lymph nodes (at least one tumor deposit greater than 2.0 mm); or metastases to the infraclavicular (level III axillary lymph) nodes node biopsy but not clinically detected**
N3c	Metastases in ipsilateral supraclavicular lymph node(s)
pN3c	Metastases in ipsilateral supraclavicular lymph nodes

\*Classification is based on axillary lymph node dissection with or without sentinel lymph node biopsy. Classification based solely on sentinel lymph node biopsy without subsequent axillary lymph node dissection is designated (sn) for “sentinel node”, for example, pN0 (sn).

\*\**Not clinically detected* is defined as not detected by imaging studies

(Excluding lymphoscintigraphy) or not detected by clinical examination.

\*\*\*Clinically detected is defined as detected by imaging studies (excluding lymphoscintigraphy) or by clinical examination and having characteristics highly suspicious for malignancy or a presumed pathologic macrometastasis based on fine needle aspiration biopsy with cytologic examination. Confirmation of clinically detected metastatic disease by fine needle aspiration without excision biopsy is designated with an (f) suffix, for example, cN3a(f). Excisional biopsy of a lymph node or biopsy of a sentinel node, in the absence of assignment of a pT, is classified as a clinical N, for example, cN1. Information regarding the confirmation of the nodal status will be designated in site specific factors as clinical, fine needle aspiration, core biopsy or sentinel lymph node biopsy. Pathologic classification (pN) is used for excision or sentinel lymph node biopsy only in conjunction with a pathologic T assignment.

Note: Isolated tumor cell clusters (ITC) are defined as small clusters of cells not greater than 0.2 mm, or single tumor cells, or a cluster of fewer than 200 cells in a single histologic cross-section. ITCs may be detected by routine histology or by immunohistochemical (IHC) methods. Nodes

containing only ITCs are excluded from the total positive node count for purposes of N classification but should be included in the total number of nodes evaluated.

<b><i>Distant Metastasis (M)</i></b>	
M0	No clinical or radiographic evidence of distant metastases (no pathologic M0; use clinical M to complete stage group)
cM0(i+)	No clinical or radiographic evidence of distant metastases, but deposits of molecularly or microscopically detected tumor cells in circulating blood, bone marrow or other non-regional nodal tissue that are no larger than 0.2 mm in a patient without symptoms or signs of metastases
M1	Distant detectable metastases as determined by classic clinical and radiographic means and/or histologically proven larger than 0.2 mm

**Anatomic Stage / Prognostic Groups**

<b>Group</b>	<b>T</b>	<b>N</b>	<b>M</b>
0	Tis	N0	M0
IA	T1*	N0	M0
IB	T0	N1mi	M0
	T1*	N1mi	M0
IIA	T0	N1**	M0
	T1*	N1**	M0
	T2	N0	M0
IIB	T2	N1	M0
	T3	N0	M0
IIIA	T0	N2	M0
	T1*	N2	M0
	T2	N2	M0

	T3	N1	M0
	T3	N2	M0
IIIB	T4	N0	M0
	T4	N1	M0
	T4	N2	M0
IIIC	Any T	N3	M0
IV	Any T	Any N	M1

\*T1 includes T1mi

\*\*T0 and T1 tumors with nodal micrometastases only are excluded from Stage IIA and are classified Stage IB.

*\*Used with the permission of the American Joint Committee on Cancer (AJCC), Chicago, Illinois. The original source of this material is the AJCC Cancer Staging Manual, Seventh Edition (2010) published by Springer SBM, LLC.*