


**NAACCR Hospital Registry  
Webinar Series**

October 4, 2007



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**Abstracting Melanoma Cancer  
Incidence and Treatment Data**


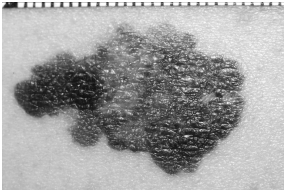


Image source: [commons.wikimedia.org/wiki/Image:Melanoma.jpg](http://commons.wikimedia.org/wiki/Image:Melanoma.jpg)

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**Melanoma**

- Sites include
  - ◆ Skin (C44.0-C44.9)
  - ◆ Vulva (C51.0-C51.2, C51.8-C51.9)
  - ◆ Penis (C60.0-C60.2, C60.8-C60.9)
  - ◆ Scrotum (C63.2)
- Approximately 4% of newly diagnosed cancers in 2007



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### Skin

- Covers entire surface of body
- Consists of three layers
  - ◆ Epidermis: thin outer layer
  - ◆ Dermis: thick underlying layer
  - ◆ Hypodermis: fatty layer



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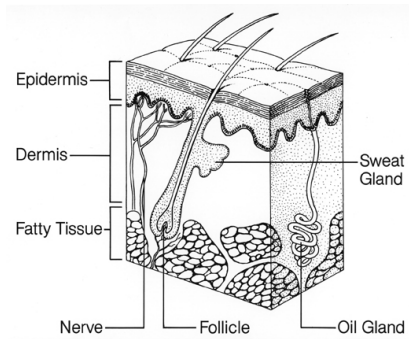
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### Skin Layers

Image source: NCI Visuals Online



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### Epidermis

- Consists of five sub-layers
- Basal cell layer
  - ◆ Innermost layer of epidermis
  - ◆ Contains basal cells
  - ◆ Contains melanocytes that produce melanin
    - ◆ Melanoma develops when melanocytes undergo malignant transformation
  - ◆ Contains Merkel cells



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### Epidermis

- Squamous cell layer
  - ◆ Resides above basal layer
  - ◆ Called stratum spinosum
  - ◆ Contains keratinocytes
  - ◆ Contains Langerhans cells
  - ◆ Is the thickest part of epidermis



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### Epidermis

- Stratum granulosum
  - ◆ Thin granular layer
- Stratum lucidum
  - ◆ Translucent layer
- Stratum corneum
  - ◆ Outermost layer
  - ◆ Sloughs off dead keratinocytes



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### Sub-layers of Epidermis


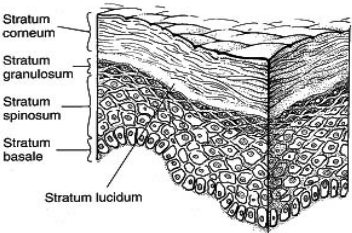


Image source: Merck Source - Dorland's Illustrated Medical Dictionary

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**Dermis**

- **Thickest of the three layers**
- **Main functions:**
  - ◆ Stores much of the body's supply of water
  - ◆ Supplies nutrients to the epidermis
  - ◆ Regulates body temperature



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**Dermis**

- **Contains specialized cells and structures**
  - ◆ Blood vessels
  - ◆ Lymph vessels
  - ◆ Hair follicles
  - ◆ Sweat glands
  - ◆ Sebaceous glands
  - ◆ Nerve endings
  - ◆ Collagen



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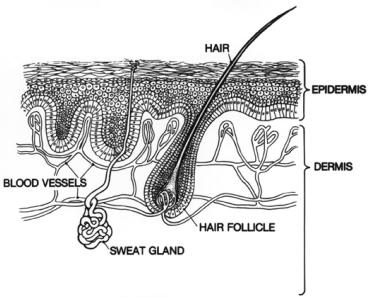
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**Dermis**






Image source: NCI Visuals Online

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### Dermis

- **Papillary layer**
  - ◆ Regulates body temperature
  - ◆ Supplies epidermis with nutrient-filled blood
- **Reticular layer**
  - ◆ Provides structure and elasticity
  - ◆ Supports components of skin



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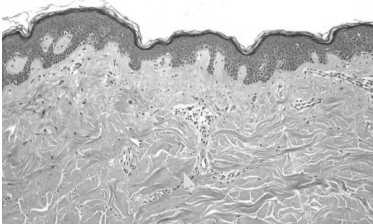
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### Dermis



▶ Papillary dermis  
▶ Reticular dermis




Image source: missinglink.ucsf.edu

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### Hypodermis

- **Network of fat and collagen**
- **Functions as:**
  - ◆ Shock-absorber for body
  - ◆ Insulator
  - ◆ Fat storage as energy reserve



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**Main Types of Melanoma in the U.S.**

- Superficial spreading melanoma – 70%
- ◆ Grows horizontally first


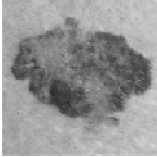


Image source: www.melanomafoundation.com

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**Main Types of Melanoma in the U.S.**

- Nodular melanoma – 15%
- ◆ Most aggressive


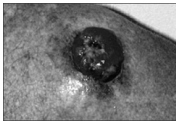


Image source: www.aafp.org

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**Main Types of Melanoma in the U.S.**

- Lentigo maligna melanoma – 10%
- ◆ Least aggressive


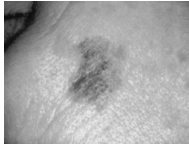


Image source: www.aafp.org

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### Main Types of Melanoma in the U.S.

- Acral lentiginous melanoma – 5%
  - ◆ Most common in dark-skinned people

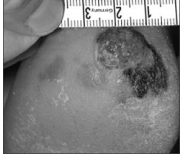


Image source: [www.aafp.org](http://www.aafp.org)

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### Main Types of Melanoma in the U.S.

- Desmoplastic melanoma - rare
  - ◆ Characterized by non-pigmented lesions

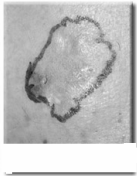


Image source: [www.melanomahopenetwork.org](http://www.melanomahopenetwork.org)

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### Regression

- Melanoma regression does not refer to a specific histology
  - ◆ It is the size and physical appearance of the lesion
  - ◆ Shrinking in size is the immune system's reaction to the melanoma
  - ◆ It may indicate a poor prognosis
- Only code regressing melanoma (8723/3) if it is the final diagnosis
- Regression does not affect staging



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**Synonyms for In Situ Melanoma**

- Basement membrane of epidermis intact
- Behavior code 2
- Clark level I
- Hutchinson freckle
- Intraepidermal
- Intraepithelial
- Lentigo maligna
- Noninvasive
- Precancerous melanosis
- Radial growth phase melanoma
- Stage 0
- Tis



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**Synonyms for Hutchinson Freckle (8742/2)**

- Circumscribed precancerous melanosis
- Intraepidermal malignant melanoma
- Lentigo maligna
- Precancerous melanosis of Dubreuilh



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**Non-reportable Skin Conditions**

- Atypical melanocytic hyperplasia (dysplasia)
- Evolving melanoma
- Giant pigmented nevus (8761/1)
- Junctional nevus (8740/0)
- Proliferation of atypical melanocytes confined to epidermis
- Severe melanotic dysplasia



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### Laterality for Melanoma

- Skin sites for which laterality is recorded
  - ◆ Skin of eyelid C44.1
  - ◆ Skin of external ear C44.2
  - ◆ Skin of face C44.3
  - ◆ Skin of trunk C44.5
  - ◆ Skin of upper limb and shoulder C44.6
  - ◆ Skin of lower limb and hip C44.7



Source: FORDS p. 12 and SEER PCSM 2007 p. 74

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### Tumor Invasion for Melanoma

- Clark's level
  - ◆ Measures melanoma invasion by anatomic levels
- Breslow thickness
  - ◆ Measures depth of skin penetration by melanoma



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### Tumor Invasion for Melanoma


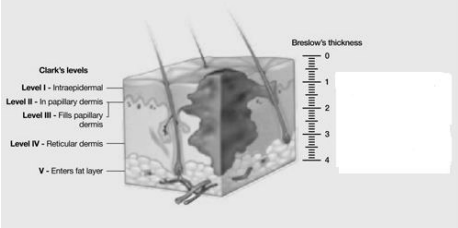


Image source: [www.jfponline.com](http://www.jfponline.com)

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### Melanoma Work-up

- **Physical exam**
  - ◆ Skin examination
  - ◆ Number of nevi
  - ◆ Changes in moles and surrounding skin
    - Sensation
    - Consistency
  - ◆ Laterality
  - ◆ Lymph node examination
    - Size of nodes
    - Number of palpable nodes



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### Melanoma Work-up

- **Imaging studies**
  - ◆ Chest x-ray
  - ◆ CT scan of abdomen/pelvis
  - ◆ CT scan of bone
  - ◆ CT scan of brain
  - ◆ CT scan of chest
  - ◆ CT scan of liver/spleen



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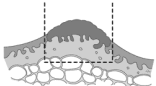
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### Melanoma Work-up



Punch biopsy



Excisional biopsy



Shave biopsy

Image source: [www.jfponline.com](http://www.jfponline.com)




Image source: [www.huntsmanccancer.org](http://www.huntsmanccancer.org)

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**Collaborative Staging (CS)  
for Melanoma**

**Skin, Vulva, Penis, and Scrotum**

Portions of this presentation from presentation developed by Collaborative Staging Steering Committee (ajcc@facs.org).




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**CS Melanoma**

- Schema for skin, vulva, penis, scrotum
- Melanoma of visceral sites coded by site-specific schema
- Do NOT use melanoma of skin schema for
  - ◆ Mucous membranes
    - ◆ Oral cavity, nasopharynx, vagina, urethra, anal canal
  - ◆ Other visceral sites
  - ◆ Eye and adnexa




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**CS Tumor Size Melanoma**

<u>Code</u>	<u>Description</u>
000	No mass or tumor
001-988	Exact size in millimeters
989	989 mm or larger
990	Microscopic focus
991	Described as less than 1 cm
992-995	Described as less than 2-5 cm OR greater than 1-4 cm OR between 1-4 cm and 2-5 cm
999	Unknown




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**CS Extension Melanoma: Notes**

1. If discrepancy between Clark's level and pathologic extent, use higher code
2. Code satellite lesions/nodules or in-transit mets in CS Lymph Nodes
3. Code ulceration in SSF2




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**CS Extension Melanoma**

Ext.	Clark's Level	Anatomic Extent
00	I	Melanoma in situ
10	II	Papillary dermis
20	III	Papillary-reticular dermal interface
30	IV	Reticular dermis
40	----	Skin/dermis, NOS; localized, NOS
50	V	Subcutaneous tissue




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**CS Extension Melanoma**

Ext.	Clark Level	Anatomic Extent
80	----	Further contiguous extension
95	----	No evidence of primary tumor
99	----	Unknown extension




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### CS Extension Melanoma

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Image source: www.jfponline.com

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### Melanoma of the Skin

The level of invasion, as defined by Dr. Wallace Clark, is used to define subcategories of T1 melanoma but not for thicker melanomas (i.e., T2, T3, or T4). Illustrates Clark levels II, III, IV, and V, respectively.

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### CS Tumor Size/Ext Eval

<u>Code</u>	<u>Description</u>
0	Clinical only
1	Invasive techniques
2	Autopsy (known or suspected dx)
3	Pathology
5	Pre-op tx; clinical eval
6	Pre-op tx; pathologic eval
8	Autopsy; dx not suspected
9	Unknown

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### CS Lymph Nodes Melanoma: Notes

1. Code regional nodes and nodes, NOS, only; distant nodes coded in CS Mets at Dx
2. Satellite lesions/nodules or in-transit metastasis coded in CS Lymph Nodes



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### CS Lymph Nodes Melanoma: Notes

3. Codes 10-12  
Regional nodes involved without satellite nodules or in-transit mets
- Codes 13-15  
Satellite nodules or in-transit mets without regional node involvement
- Codes 20-22  
Both satellite nodules/in-transit mets and regional nodes involved



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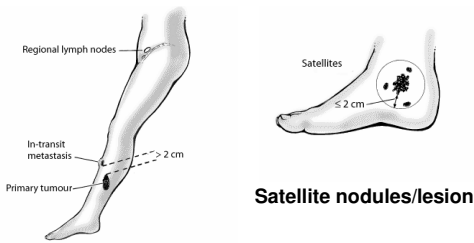
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### Satellite Nodules and In-transit Mets



Regional lymph nodes

In-transit metastasis

Primary tumour


Satellites

≤ 2 cm

> 2 cm

Satellite nodules/lesions

In-transit metastasis



Source: TNM-interactive, Wiley-Liss, 1998

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<b>CS Lymph Nodes Melanoma</b>	
<u>Code</u>	<u>Description</u>
00	None
10	Regional nodes by site Specific skin subsite, vulva, penis, scrotum
12	Regional nodes by site Specific head and neck skin sites




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<b>CS Lymph Nodes Melanoma</b>	
<u>Code</u>	<u>Description</u>
13	Satellite nodules or in-transit mets (distance from primary not stated) WITHOUT nodes or nodes not stated
14	Satellite nodules or in-transit mets $\leq$ 2 cm from primary, WITHOUT nodes or nodes not stated




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<b>CS Lymph Nodes Melanoma</b>	
<u>Code</u>	<u>Description</u>
15	Satellite nodules or in-transit mets > 2 cm from primary tumor WITHOUT nodes or nodes not stated
17	Matted nodes listed in code 10
18	Matted nodes listed in code 12




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<b>CS Lymph Nodes Melanoma</b>	
<u>Code</u>	<u>Description</u>
20	Satellite nodules or in-transit mets WITH regional nodes listed in code 10
22	Satellite nodules or in-transit mets WITH regional nodes listed in code 12
80	Lymph nodes, NOS
99	Unknown




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<b>CS Reg Node Eval</b>	
<u>Code</u>	<u>Description</u>
0	No regional nodes, satellite nodules or in-transit mets removed; clinical only
1	No regional nodes, satellite nodules or in-transit mets removed; invasive techniques




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<b>CS Reg Node Eval</b>	
<u>Code</u>	<u>Description</u>
2	No regional nodes, satellite nodules or in-transit mets removed; autopsy (known or suspected dx)
3	Regional nodes, satellite nodules or in-transit mets removed; pathology




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<b>CS Reg Node Eval</b>	
<u>Code</u>	<u>Description</u>
5	Regional nodes, satellite nodules or in-transit mets removed; pre-op tx; clinical eval
6	Regional nodes, satellite nodules or in-transit mets removed; pre-op tx; pathologic eval
8	Autopsy; dx not suspected
9	Unknown




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<b>CS Reg LN Pos Melanoma: Notes</b>	
1. Record this field even if there has been pre-operative treatment	
2. Do not count satellite nodules and in-transit metastasis in this data item	




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<b>Regional Nodes Positive</b>	
Code	Description
00	Nodes negative
01-89	1-89 nodes positive
90	90 or more nodes positive
95	Positive aspiration or core biopsy of LN
97	Positive nodes, number unspecified
98	No nodes examined
99	Unknown




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<b>Regional Nodes Examined</b>	
<u>Code</u>	<u>Description</u>
00	No nodes examined
01-89	1-89 nodes examined
90	90 or more nodes examined
95	No regional nodes removed, but aspiration or core biopsy of lymph nodes
96	Regional node sampling, number unknown
97	Regional node dissection, number unknown
98	Regional nodes removed, number unknown, not documented as sampling or dissection; nodes examined, number unknown
99	Unknown

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<b>CS Mets at Dx Melanoma</b>	
<u>Code</u>	<u>Description</u>
00	No; none
05	Underlying cartilage, bone, skeletal muscle
10	Distant lymph nodes
40	Distant metastasis, NOS
42	Metastases to skin or subcutaneous tissue beyond regional lymph nodes

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<b>CS Mets at Dx Melanoma</b>	
<u>Code</u>	<u>Description</u>
43	Lung
44	Other distant metastases
52	(10) + (42)
53	(10) + (43)
54	(10) + (44)
99	Unknown

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<b>CS Mets Eval</b>	
<u>Code</u>	<u>Description</u>
0	Clinical only
1	Invasive techniques
2	Autopsy (known or suspected dx)
3	Pathology
5	Pre-op tx; clinical eval
6	Pre-op tx; pathologic eval
8	Autopsy; dx not suspected
9	Unknown




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<b>CS Site-Specific Factor 1 Measured Thickness, Breslow's Measurement</b>	
<u>Code</u>	<u>Description</u>
000	No mass/tumor found
001-988	Exact measurement in hundredths of millimeters
989	9.89 millimeters or larger
990	OBSOLETE
999	Microinvasion




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<b>CS Site-Specific Factor 2 Ulceration: Notes</b>	
<ol style="list-style-type: none"> <li>1. Melanoma ulceration is absence of an intact epidermis overlying primary melanoma based on pathologic exam</li> <li>2. Assume ulceration is present and assign code 000 if there is no documentation or mention of ulceration in path</li> </ol>	




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<b>CS Site-Specific Factor 2 Ulceration</b>	
<u>Code</u>	<u>Description</u>
000	No ulceration present
001	Ulceration present
999	Unknown



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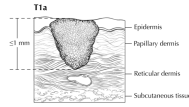
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### Melanoma of the Skin



**T1a is defined as melanoma  $\leq 1.0$  mm in thickness, level II or III, with no ulceration.**



Used with permission of the American Joint Commission on Cancer (AJCC), Chicago, IL. The original source for this material is the AJCC Staging Manual, Sixth Edition (2002) published by Springer-New York, www.Springeronline.com.

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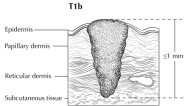
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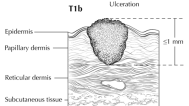
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### Melanoma of the Skin



**T1b is defined as melanoma  $\leq 1.0$  mm in thickness, level IV or V, or with ulceration. This figure illustrates T1b with level V invasion and no ulceration.**



**T1b is illustrated here as melanoma  $\leq 1.0$  mm in thickness with level II invasion and ulceration.**



Used with permission of the American Joint Commission on Cancer (AJCC), Chicago, IL. The original source for this material is the AJCC Staging Manual, Sixth Edition (2002) published by Springer-New York, www.Springeronline.com.

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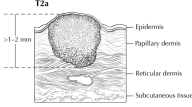
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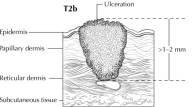
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### Melanoma of the Skin



T2a is defined as melanoma greater than 1.0 mm but not more than 2.0 mm in thickness without ulceration.



T2b is defined as melanoma greater than 1.0 mm but not more than 2.0 mm in thickness with ulceration.



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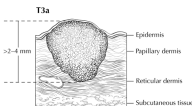
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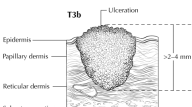
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### Melanoma of the Skin



T3a is defined as melanoma greater than 2.0 mm but not more than 4.0 mm in thickness without ulceration.



T3b is defined as melanoma greater than 2.0 mm but not more than 4.0 mm in thickness with ulceration.



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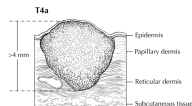
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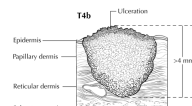
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### Melanoma of the Skin



T4a is defined as melanoma >4.0 mm in thickness without ulceration.



T4b is defined as melanoma >4.0 mm in thickness with ulceration.



Used with permission of the American Joint Commission on Cancer (AJCC), Chicago, IL. The original source for this material is the AJCC Staging Manual, Sixth Edition (2002) published by Springer-New York, www.Springeronline.com.

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<b>CS Site-Specific Factor 3 Clinical Status of Lymph Node Mets</b>	
<u>Code</u>	<u>Description</u>
000	No lymph node metastases
001	Clinically occult (microscopic) lymph node metastases only
002	Clinically apparent (macroscopic) lymph node metastases
999	Unknown




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<b>CS Site-Specific Factor 4 LDH</b>	
<u>Code</u>	<u>Description</u>
000	Test not done, not ordered, not performed
002	Within normal limits
004	Range 1, less than 1.5 x upper limit of normal; elevated, NOS
005	Range 2, 1.5 - 10 x upper limit of normal




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<b>CS Site-Specific Factor 4 LDH</b>	
<u>Code</u>	<u>Description</u>
006	Range 3, more than 10 x upper limit of normal
008	Ordered but results not in chart
999	Unknown




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**CS Site-Specific Factors 5 & 6**

<u>Code</u>	<u>Description</u>
888	Not applicable for this site



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**Melanoma of Skin**

**Case Study 1**  
 1 cm lesion on shoulder, cervical and axillary nodes negative on physical exam. Remainder of exam negative.  
 Excisional biopsy: Clark level II, Breslow 1.33 mm.



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**Melanoma of Skin**  
**Case Study 1**

- CS Tumor size 010 1 cm
- CS Extension 10 Clark level II
- CS TS/Ext Eval 3 Pathologic
- CS Lymph node 00 Negative on physical exam
- CS Reg LN Eval 0 Based on physical exam



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**Melanoma of Skin  
Case Study 1**

- Reg Nodes Pos 98 No nodes examined
- Reg Nodes Exm 00 No nodes removed
- CS Mets at Dx 00 Exam negative
- CS Mets Eval 0 Based on physical exam



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**Melanoma of Skin  
Case Study 1**

- CS SSF1 133 1.33 mm thick
- CS SSF2 000 Not mentioned, assumed none
- CS SSF3 000 No lymph node metastasis
- CS SSF4 999 No LDH information
- CS SSF5, 6 888 Not applicable



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**Melanoma of Skin**

**Case Study 2**  
 Small (< 1 cm) nodule on calf.  
 Excisional biopsy: ulcerated nodular melanoma, Clark IV, Breslow 3.42 mm.  
 Small dark nodule on inner thigh 5 cm from primary; excisional biopsy: same cell type. Rest of exam negative.



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Melanoma of Skin Case Study 2		
■ CS Tumor size	991	< 1 cm
■ CS Extension	30	Clark level IV
■ CS TS/Ext Eval	3	Pathologic
■ CS Lymph node	15	In-transit metastasis > 2cm from primary
■ CS Reg LN Eval	3	In-transit metastasis excised




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Melanoma of Skin Case Study 2		
■ Reg Nodes Pos	98	No nodes examined
■ Reg Nodes Exm	00	No nodes removed
■ CS Mets at Dx	00	Exam negative
■ CS Mets Eval	0	Based on physical exam




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Melanoma of Skin Case Study 2		
■ CS SSF1	342	3.42 mm thick
■ CS SSF2	001	Ulceration
■ CS SSF3	000	No lymph node metastasis
■ CS SSF4	999	No LDH information
■ CS SSF5, 6	888	Not applicable




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**Melanoma of Skin**

**Case Study 3**  
 2 cm area of purplish discoloration with raised center on forearm. Axilla negative. Rest of exam WNL. Excisional biopsy: superficial spreading melanoma, Breslow 2.02 mm. Wide excision: negative. Axillary lymph node dissection: 1/8 node positive.



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**Melanoma of Skin**  
**Case Study 3**

- CS Tumor size 020 2 cm
- CS Extension 99 Not stated
- CS TS/Ext Eval 3 Pathologic
- CS Lymph node 10 Axillary node with arm primary
- CS Reg LN Eval 3 Pathologic



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**Melanoma of Skin**  
**Case Study 3**

- Reg Nodes Pos 01 1/8 axillary node positive
- Reg Nodes Exm 08 1/8 axillary node positive
- CS Mets at Dx 00 Exam negative
- CS Mets Eval 0 Based on physical exam



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**Melanoma of Skin  
Case Study 3**

- CS SSF1 202 2.02 mm thick
- CS SSF2 000 No ulceration
- CS SSF3 001 Clinically occult lymph node metastasis
- CS SSF4 999 No LDH information
- CS SSF5, 6 888 Not applicable



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**Melanoma of Skin  
Case Study 4**

Difficulty breathing. CXR shows multiple metastatic lesions bilaterally. FNA LLL: metastatic melanoma. No apparent moles or skin lesions; no lymphadenopathy. LDH elevated (2 tests). Site: C44.9, Skin, NOS.



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**Melanoma of Skin  
Case Study 4**

- CS Tumor size 000 No primary tumor found
- CS Extension 95 No primary tumor found
- CS TS/Ext Eval 0 Clinical
- CS Lymph node 00 No lymphadenopathy
- CS Reg LN Eval 0 Clinical



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**Melanoma of Skin  
Case Study 4**

- Reg Nodes Pos 98 No nodes examined
- Reg Nodes Exm 00 No nodes removed
- CS Mets at Dx 43 Lung
- CS Mets Eval 3 Pathologic



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**Melanoma of Skin  
Case Study 4**

- CS SSF1 000 No primary tumor found
- CS SSF2 999 No primary tumor found
- CS SSF3 000 No lymphadenopathy
- CS SSF4 004 LDH elevated
- CS SSF5, 6 888 Not applicable



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**Quiz**



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	<h2>First Course Treatment</h2> <p>Melanoma</p> 
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	<h2>First Course Treatment</h2> <ul style="list-style-type: none"><li>■ Intended to affect tumor by<ul style="list-style-type: none"><li>◆ Modification</li><li>◆ Control</li><li>◆ Removal</li><li>◆ Destruction</li></ul></li><li>■ Includes curative and palliative treatment</li></ul> 
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	<h2>Surgical Procedure of Primary Site</h2> <ul style="list-style-type: none"><li>■ Skin surgical procedure of primary site codes used for skin sites (C44.0-C44.9)<ul style="list-style-type: none"><li>◆ FORDS Appendix B, page 268 and SEER PCSM 2004 Appendix C, pages C-439 and C-440</li></ul></li></ul> 
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	<h3>Surgery</h3> <ul style="list-style-type: none"><li>■ <b>Definite (complete) excision of the melanoma requires the removal of 0.5 inch (1.0 cm) to 1.0 inch (2.0 cm) of normal-appearing skin surrounding the melanoma.</b></li></ul> 
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	<h3>Surgery</h3> <ul style="list-style-type: none"><li>■ <b>A T1a tumor, (measuring 1.0 mm or smaller in thickness without ulceration) can be safely excised with a 1 cm margin of skin.</b></li><li>■ <b>Thicker melanomas requires a 2.0 cm margin of skin.</b></li></ul> 
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	<h3>Surgery</h3> <ul style="list-style-type: none"><li>■ <b>Shave biopsy</b><ul style="list-style-type: none"><li>◆ <b>Top layers of the skin are “shaved” (the epidermis and the most superficial part of the dermis) with a surgical blade.</b><ul style="list-style-type: none"><li>◆ <i>A shave biopsy is useful in diagnosing many types of skin diseases and in treating benign moles.</i></li><li>◆ <i>Not generally recommended if a melanoma is suspected, because a shave biopsy sample may not be thick enough to accurately measure how deeply the melanoma has invaded the skin.</i></li></ul></li></ul></li></ul> 
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**Surgery**

- **Punch biopsy:**
  - ◆ **A punch biopsy removes a deeper sample of skin.**
    - ◆ The doctor uses a tool that looks like a tiny round cookie cutter.
    - ◆ Once the skin is numbed with a local anesthetic, the doctor rotates the punch biopsy tool on the surface of the skin until it cuts through all the layers of the skin, including the dermis, epidermis, and the upper parts of the subcutis.



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**Surgery**

- **Moh's Surgery**
  - ◆ Using a microscope to examine the tissue, the surgeon excises the growth layer by layer until only healthy tissue remains.
    - ◆ Each section is microscopically reviewed by the Mohs surgeon.
    - ◆ In cases where microscopic examination reveals tumor in one or more of the subdivided specimens, a corresponding mark is drawn on the Mohs map.



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**Surgical Procedure of Primary Site**

- **'All other sites' surgical procedure of primary site codes for:**
  - ◆ Vulva (C51.0-C51.2, C51.8-C51.9)
  - ◆ Penis (C60.0-C60.2, C60.8-C60.9)
  - ◆ Scrotum (C63.2)
    - ◆ FORDS Appendix B, page 284 and SEER PCSM 2004 Appendix C, page C-441



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**Surgical Procedure of Primary Site: Skin**

- Code 00: None
- Codes 10 – 14
  - ◆ Local tumor destruction without pathology specimen
    - ◆ Photodynamic therapy (PDT), electrocautery, cryosurgery, laser



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**Surgical Procedure of Primary Site: Skin**

- Codes 20 – 27
  - ◆ Local tumor excision with pathology specimen
    - ◆ Excisional biopsy alone or in conjunction with laser, cryosurgery, electrocautery, or PDT



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**Surgical Procedure of Primary Site: Skin**

- Codes 30 – 36
  - ◆ Biopsy of tumor followed by gross excision of lesion
  - ◆ Does not have to be done under the same anesthesia



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	<p style="text-align: center;"><b>Surgical Procedure of Primary Site: Skin</b></p> <ul style="list-style-type: none"><li>■ Codes 45 – 47<ul style="list-style-type: none"><li>◆ Wide excision or re-excision of lesion or minor (local) amputation with margins more than 1 cm; margins must be microscopically negative</li></ul></li><li>■ Code 60: Major amputation</li><li>■ Code 90: Surgery, NOS</li><li>■ Code 99: Unknown</li></ul> 
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	<p style="text-align: center;"><b>Surgical Procedure of Primary Site: Vulva, Penis, Scrotum</b></p> <ul style="list-style-type: none"><li>■ Code 30<ul style="list-style-type: none"><li>◆ Simple/partial removal of primary site<ul style="list-style-type: none"><li>◆ Partial penectomy</li></ul></li></ul></li><li>■ Code 40<ul style="list-style-type: none"><li>◆ Total surgical removal of primary site<ul style="list-style-type: none"><li>◆ Total vulvectomy</li></ul></li></ul></li></ul> 
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	<p style="text-align: center;"><b>Surgical Procedure of Primary Site: Vulva, Penis, Scrotum</b></p> <ul style="list-style-type: none"><li>■ Code 50<ul style="list-style-type: none"><li>◆ Surgery stated to be “debulking”</li></ul></li><li>■ Code 60<ul style="list-style-type: none"><li>◆ Partial or total removal of the primary with with resection in continuity with other organs</li></ul></li></ul> 
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### Scope of Regional Lymph Node Surgery

- Code sentinel lymph node biopsy
  - ◆ Biopsy of first regional node to receive lymph drainage from primary skin site
- Code regional lymph node dissection




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### Treatment-Surgery

- Lymph Node Surgery
  - ◆ Preoperative lymphoscintigraphy helps define the precise lymphatic drainage channels from melanomas of the trunk, head, and neck.
  - ◆ Histology of the sentinel node reflects that of the entire nodal basin
  - ◆ With lymphatic mapping, operative intervention changes in almost 50% of patients.




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#### Scope of Regional Lymph Node Surgery Codes\*

Code	Label
0	None
1	Biopsy or aspiration of regional LNs, NOS
2	Sentinel LN biopsy
3	Number of regional LNs removed unknown
4	1-3 regional LNs removed
5	4 or more regional LNs removed
6	Sentinel biopsy and code 3, 4, or 5 at same time or timing not stated
7	Sentinel biopsy and code 3, 4, or 5 at different times
9	Unknown



\*FORDS Page 138

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**Surgical Procedure/Other Site**

- Record removal of distant lymph nodes or other tissues beyond the primary site
  - ◆ Excisional biopsy of lung lesion with metastatic melanoma
  - ◆ Surgical ablation of liver metastasis
  - ◆ Resection of cervical lymph node for patient with melanoma of right arm



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**Surgical Procedure/Other Site Codes\***

Code	Label
0	None
1	Nonprimary surgical procedure performed
2	Nonprimary surgical procedure to other regional sites
3	Nonprimary surgical procedure to distant lymph nodes
4	Nonprimary surgical procedure to distant site
5	Combination of codes
9	Unknown



\*FORDS Page 142

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**Treatment**

- Regional treatment modality
  - ◆ External beam
- Chemotherapy
  - ◆ Melphalan, Interleukin
- Hormone therapy
  - ◆ Tamoxifen



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## Treatment

- Immunotherapy
  - ◆ Interferon-alpha is generally used as an adjuvant therapy.
    - ◆ In clinical studies, high-dose interferon-alpha helped to prevent relapse (return of cancer), but not overall survival in people with stage III melanoma.
    - ◆ Treatment with high-dose interferon-alpha can also cause severe side effects.



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## Questions?



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## Quiz



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