



# Risk factors

- Age
- Race
- Diet
- histology

# PSA

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**TABLE 3.** AGE-SPECIFIC REFERENCE RANGES  
FOR THE PSA TEST, BASED ON THE  
5TH PERCENTILE OF THE DISTRIBUTION  
OF PSA LEVELS IN THE PATIENTS,  
ACCORDING TO RACE.

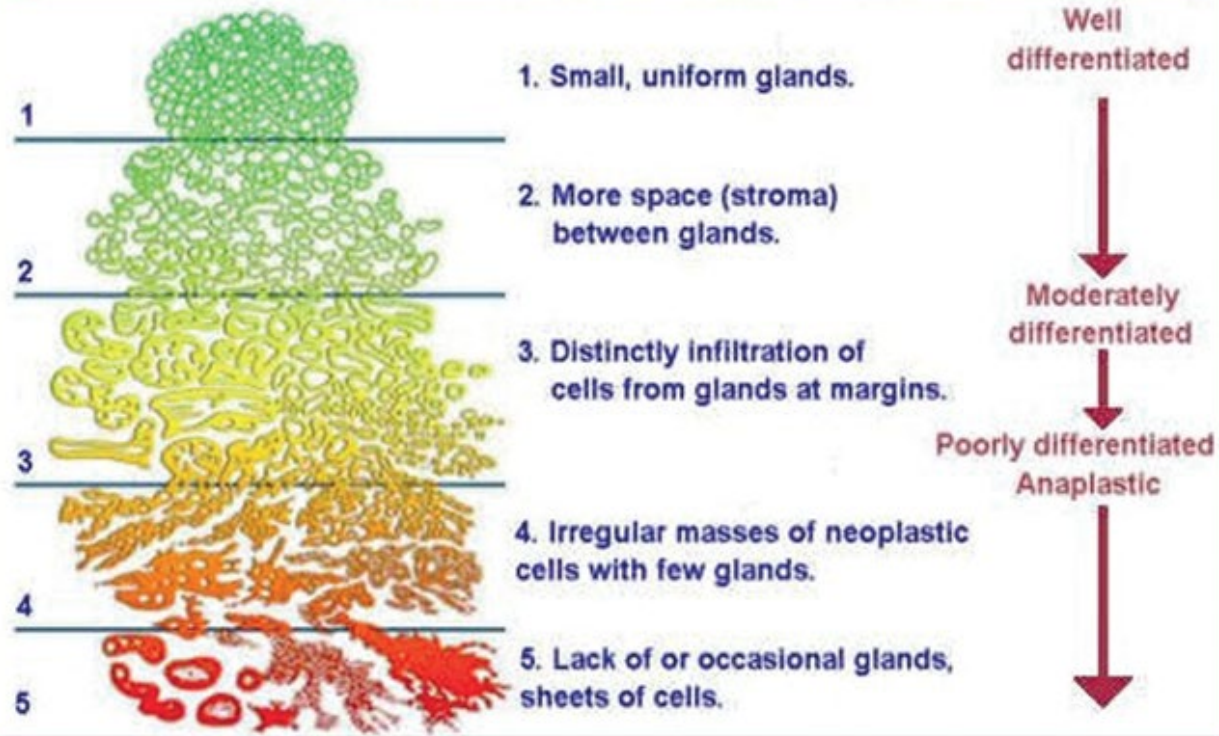
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<b>AGE (YR)</b>	<b>WHITES</b>	<b>BLACKS</b>
	ng of PSA/ml	
40-49	0.0-2.5	0.0-2.0
50-59	0.0-3.5	0.0-4.0
60-69	0.0-3.5	0.0-4.5
70-79	0.0-3.5	0.0-5.5

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Tumor	
T0	No evidence primary tumor
T1	Not detectable on DRE/imaging
T1 a/b	Incidental finding in specimen resected for another reason
T1c	Detected on biopsy for raised PSA
T2	Detectable on DRE/imaging, confined to prostate
T2a	In < one half of one lobe of prostate
T2b	In > one half of one lobe of prostate
T2c	In both lobes of prostate
T3	Spread outside prostate
T3a	Spread to prostate capsule
T3b	Spread to seminal vesicles
T4	Spread to local structures
Nodes	
N0	No spread to nodes
N1	Spread to pelvic nodes
Metastases	
M0	No evidence of spread outside the pelvis
M1a	Spread to distant lymph nodes e.g. para-aortic
M1b	Spread to bone
M1c	Visceral spread +/- bone e.g. liver, lungs

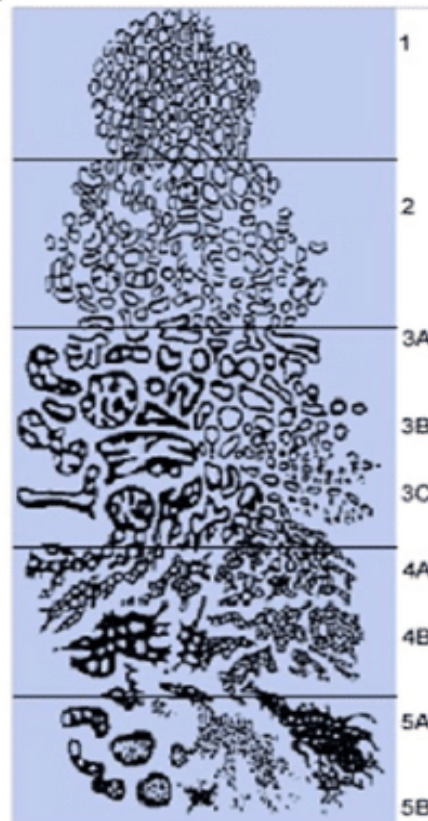
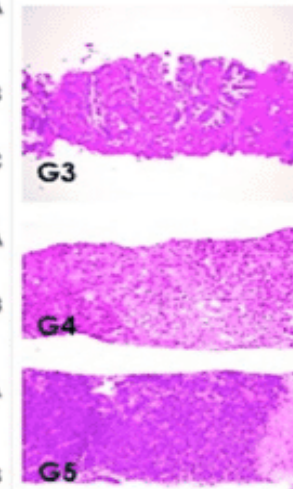
## Gleason's Pattern Scale



Source: John Murtagh, Jill Rosenblatt, Justin Coleman, Clare Murtagh: *John Murtagh's General Practice, 7e*  
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**a**

Grade Pattern	Tumour Cell Arrangement	Gland Size
1	Single, round to oval, closely packed by separate glands	Medium
2	Single, separate, round to oval glands, more variation in size and shape, loosely packed with stromal separation	Medium
3A	Single separate glands of variable shape and size, wide stromal separation	Medium
3B	Same as 3A but smaller glands	Small to very small
3C	Papillary and cribriform epithelium, without necrosis	Medium to large
4A	Fused glands	Small, medium or large
4B	Cell cytoplasm = hypernephromatoid variant	Small, medium or large
5A	Papillary, cribriform or solid masses with central necrosis	Variable
5B	Masses and sheets of anaplastic carcinoma, with a few tiny glands or signet ring cells	Small

**b****c**

# Staging

- Bone scan if psa > 20
- Multi parametric MRI

Institution/organization	Low risk	Intermediate risk	High risk
Harvard (D'Amico) <sup>12</sup> AUA <sup>33</sup> EAU <sup>34</sup>	T1-T2a and GS $\leq$ 6 and PSA $\leq$ 10	T2b and/or GS =7 and/or PSA >10-20 not low-risk	$\geq$ T2c or PSA >20 or GS 8-10
GUROC* <sup>3</sup> NICE <sup>31</sup>	T1-T2a and GS $\leq$ 6 and PSA $\leq$ 10	T1-T2 and/or Gleason $\leq$ 7 and/or PSA $\leq$ 20 not low-risk	$\geq$ T3a or PSA >20 or GS 8-10
CAPSURE* <sup>41</sup>	T1-T2a and GS $\leq$ 6 and PSA $\leq$ 10	T2b and/or GS =7 and/or PSA >10-20 not low-risk	T3-4 or PSA >20 or GS 8-10
NCCN <sup>30</sup>	T1-T2a and GS 2-6 and PSA $\leq$ 10 not very low-risk AND very-low risk category: T1c and GS $\leq$ 6 and PSA <10 and Fewer than 3 biopsy cores positive and $\leq$ 50% cancer in each core	T2b or T2c and/or GS =7 and/or PSA >10-20 not low-risk	T3a or PSA >20 or GS 8-10 not very high risk AND very high-risk category: T3b-4
ESMO <sup>32</sup>	T1-T2a and GS $\leq$ 6 and PSA <10	Not high risk and not low risk (the remainder)	T3-4 or PSA >20 or GS 8-10

AUA: American Urological Association; EAU: EAU = European Association of Urology; GUROC: Genitourinary Radiation Oncologists of Canada; NICE: National Institute for Health and Clinical Excellence; CAPSURE: Cancer of the Prostate Strategic Urologic Research Endeavour; NCCN: National Comprehensive Cancer Network; ESMO: European Association of Urology; T: T stage; GS: Gleason score; PSA: prostate-specific antigen; \*Use of the 1997 TNM staging system (T2a one lobe involvement, T2b two lobes involvement, no T2c category).

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# Treatmetn

- Low risk: active surveillance
- Intermediate : radical surgery or radiotherapy
- High risk : Hormone v watchful waiting

