



Prostate Abstracting 101 2025 Training Anatomy

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ICR Video Training Series
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Gland of the male reproductive system & located in front of rectum just below bladder

Main purpose to produce fluid for semen

About size of chestnut, somewhat conical in shape

Consists of base, apex, anterior, posterior & lateral surfaces

The prostate & its plexus is surrounded by the prostatic fascia.

Denovilliers fascia – Posterior portion of the fascia which forms barrier between prostate & rectum.

Prostate Gland

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Terms

Base of prostate

- Directed upward near inferior surface of bladder.
- Greater part of this surface is directly continuous with bladder wall

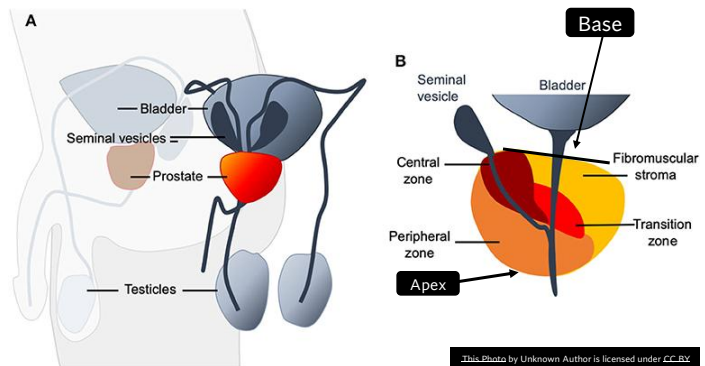
Apex of prostate

- Apex is directed downward
- In contact with superior fascia of urogenital diaphragm

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Prostate Anatomy

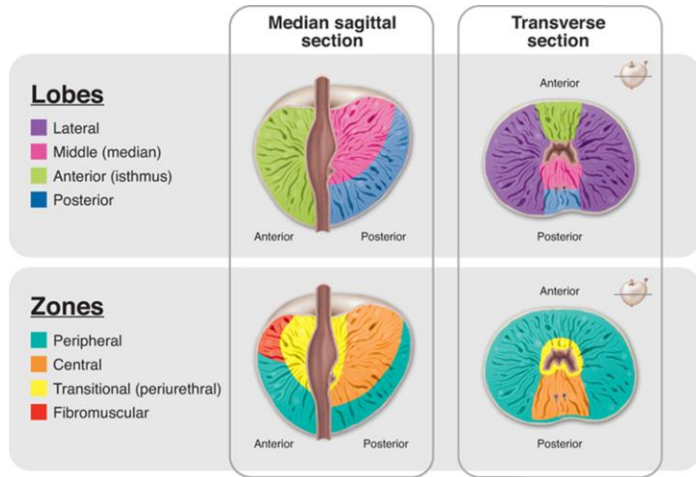
- **Peripheral zone (PZ)**
 - 70% glandular tissue
 - Outer area, next to rectum
- **Central zone (CZ)**
 - 25% glandular tissue
 - Seminal vesicle passes through and into the urethra
- **Transitional zone (TZ)**
 - 5% glandular tissue
 - Innermost section of prostate
 - Site of development of BPH



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Lobes & Zones

- **Anterior lobe**
 - Lying in front of urethra
 - No glandular tissue
- **Median lobe**
 - Situated between the two ejaculatory ducts & urethra
- **Lateral lobe**
 - Main mass of gland, Right and Left lobes
 - Separated by prostatic urethra
- **Posterior lobe**
 - Posterior-medial part of lateral lobes
 - Palpated during DRE



Source: Mark. H. Hankin, Dennis.E. Morse, Carol. A. Bennett-Clarke: Clinical Anatomy: A Case Study Approach
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Benign Prostatic Hypertrophy (BPH)

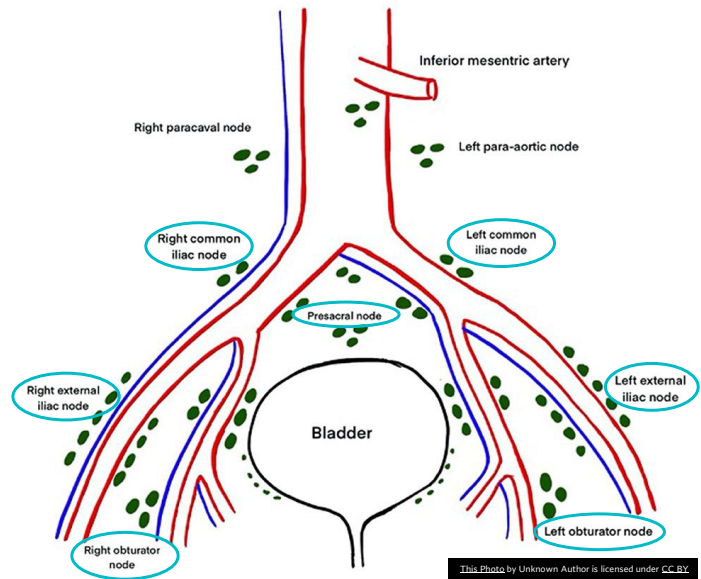
- Benign condition which an overgrowth of prostate tissue pushes against urethra causing obstruction of urine flow
 - May cause frequent urination, difficulty to start or complete obstruction in severe cases.
- A gradual enlargement of prostate & occurs in more than half of men over 45
- While BPH is not a malignant condition, prostate CA is present in about 38% of men who undergo surgery to relieve symptoms

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Regional Lymph Nodes

Lymph Node Regions:

- Pelvic, NOS
- Hypogastric
- Obturator
- Iliac
- Sacral



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Diagnosing Prostate Cancer

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PROSTATE CANCER

- Prostate CA usually arises near surface of gland, & may be felt by physician during digital rectal exam (DRE)
- As tumor grows, prostate expands around the urethra & may cause urinary symptoms like BPH. By the time tumor large enough to cause symptoms, has often spread beyond its capsule.
- May invade surrounding fat & tissue, seminal vesicles &/or neck of bladder.
- May involve LN's in pelvic region.
- Later can spread to bones, primarily in spine, hip, pelvis & chest.

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PHYSICAL EXAM

Key information to document:

- palpable mass, tumor, nodule on DRE
- enlargement of prostate (Many times numbered 1+, 2+, and so forth)
- size of nodule
- nodularity in prostate or pelvis
- palpable lymph nodes, palpable nodes
- evidence of "frozen" pelvis
- organomegaly (hepatosplenomegaly)

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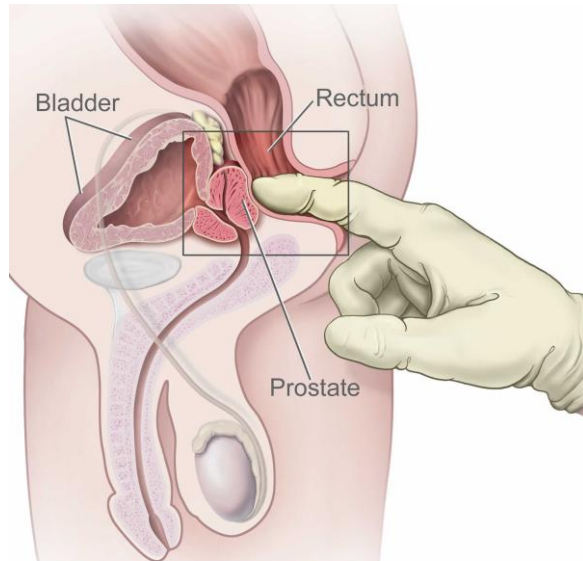
Digital Rectal Exam (DRE)

For AJCC Clinical Staging a DRE is required

- No DRE information, then registrar leaves cT blank
- Assign physician cT if they didn't use imaging information

Considered gold standard for diagnosis

PSA – screening purpose



<https://healthjade.net/wp-content/uploads/2017/10/digital-rectal-exam.jpg>

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PSA



Tumor marker assay of blood serum for antigen released from cells in prostate tissue.

Value may be elevated in benign prostatic hypertrophy. After radical prostatectomy or radiation, rising levels of PSA indicate residual disease or recurrence



Normal range: 0 - 4.0 ng/ml.

Normal range also varies depending on the patient's age.



SSDI – Lab value

Code prior to biopsy/treatment and within 3mo of diagnosis

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IMAGING

Prostatic Ultrasound – Many times called Transrectal U/S (TRUS). Document “increased areas of attenuation”, mention of “hypoechoic area or nodule”.

CT Abd/Pelvis – Done to assess primary tumor extension, regional LN mets & distant mets.

Bone Scan – common site of distant mets in prostate CA. Document mention of “lytic”, “osteolytic” or “blastic” lesions.

Exception: Use of these terms in conjunction with a (suspected) Dx of arthritis, previous fracture or osteomyelitis.

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PI-RADS UPDATE!

- PI-RADS category 4 or 5 is **NOT** reportable
 - Based on the American College of Radiology Prostate Imaging Reporting and Data System (PI-RADS)
 - If imaging is a PI-RADS 4 or PI-RADS 5 is not considered diagnostic alone

IGNORE the instructions in SEER 2025 Appendix E1 – This is being updated for the 2027 manual

https://seer.cancer.gov/manuals/2025/SPCSM_2025_Appendix_E.pdf

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Endoscopy

Cystoscopy

- Examination of the bladder
- Used to also evaluate prostatic urethra and any stricture potentially caused by enlarged prostate
- Used to access the prostate when performing a TURP

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Transurethral Resection of the Prostate (TURP)

- Usually performed for the treatment of BPH
- A resectoscope is inserted through the urethra to remove excess prostate tissue
 - Relieve symptoms of difficulty urinating and frequent urination

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TRUS Biopsy

Transrectal Ultrasound Biopsy

- Examination of prostate using ultrasound
- Diagnostic procedure for prostate cancer
 - Due to elevated PSA and/or abnormal DRE

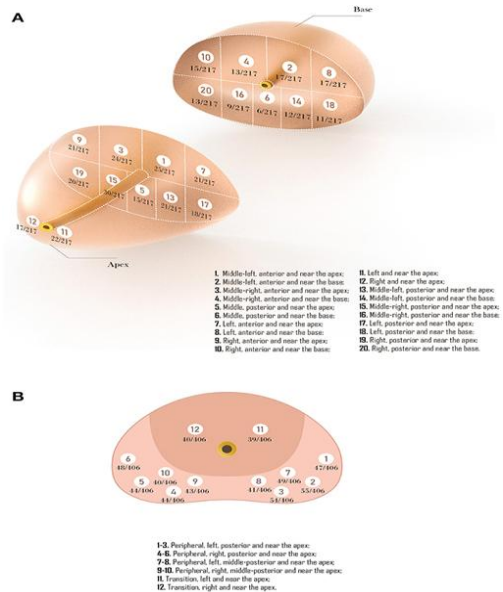


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Standard TRUS Biopsy

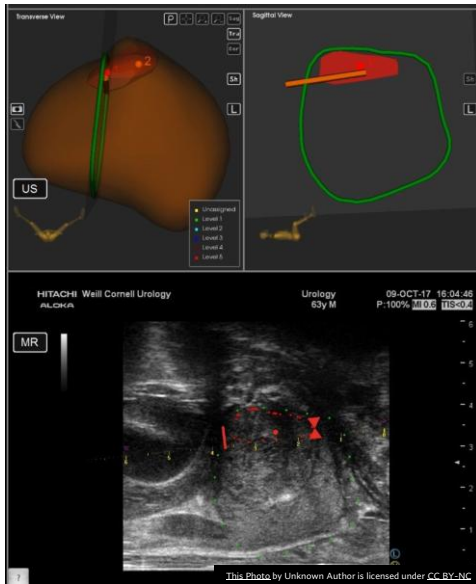
Standard Biopsy (Sextant Biopsy)

- Roughly 6-12 biopsies of prostate
 - Usually, TRUS guided
- Biopsy cores taken from right and left sides of prostate
 - Apex
 - Base
 - Central



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MRI Fusion Biopsy

- Combines MRI and ultrasound imaging to accurately target and sample suspicious areas in the prostate
 - Two-step process:
 - Initial MRI scan that provides detailed images that help identify areas of concern
 - During the biopsy (TRUS), the MRI images are fused with real-time US images
 - Both standard biopsies taken and targeted biopsies of suspicious areas

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Metastatic Sites

Bone metastasis are typical for prostate cancer

- Bone scan is ordered to review for possible bone metastasis
- CT C/A/P **and/or** PET scan
 - Regional lymph node involvement **and/or**
 - Distant metastasis

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Questions? Contact me.



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