

# Updates in Prostate Cancer Screening and Surgery

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# Overview

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- Prostate Cancer – Incidence, Risk Factors
- Who to Screen? Guidelines
- Use of MRI - Diagnostic Pathway
- Transperineal prostate biopsies
- Robotic Prostatectomy

# PROSTATE CANCER IS THE SECOND MOST COMMON CANCER IN MEN.



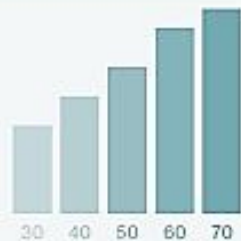
OVER 3,000 IRISH MEN ARE DIAGNOSED WITH PROSTATE CANCER EACH YEAR.



1 IN 8 IRISH MEN WILL DEVELOP PROSTATE CANCER IN THEIR LIFETIME.



PROSTATE CANCER IS THE 6<sup>TH</sup> MOST COMMON CAUSE OF CANCER DEATH AMONG MEN, ACCOUNTING FOR 13% OF DEATHS.



RISK OF BEING DIAGNOSED WITH PROSTATE CANCER INCREASES WITH AGE.

# Are you at risk of prostate cancer?



**PROSTATE  
CANCER UK**

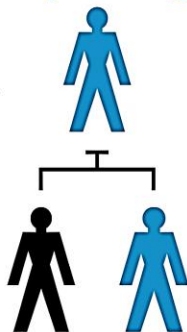


**1 in 8**

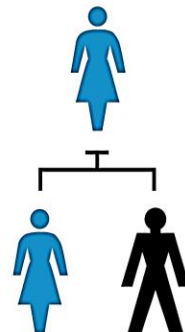
In the UK, about 1 in 8 men will get prostate cancer at some point in their lives.

## Family history and genes

You are two and a half times more likely to get prostate cancer if your father or brother has been diagnosed with it, compared to a man with no family history of prostate cancer.



Your risk of getting prostate cancer is higher if your mother or sister has had breast cancer.



## Over 50 years old

Prostate cancer mainly affects men over 50 and your risk increases with age. The average age for men to be diagnosed with prostate cancer is between 65 and 69 years.

**Prostate cancer is the most common cancer in men in the UK.**

## Ethnicity



Black men are more likely to get prostate cancer than other men. In the UK, about 1 in 4 black men will get prostate cancer at some point in their lives. If you're black, you may be more likely to get prostate cancer if you're aged 45 or over.

Speak to our  
Specialist Nurses  
0800 074 8383  
[prostatecanceruk.org](http://prostatecanceruk.org)

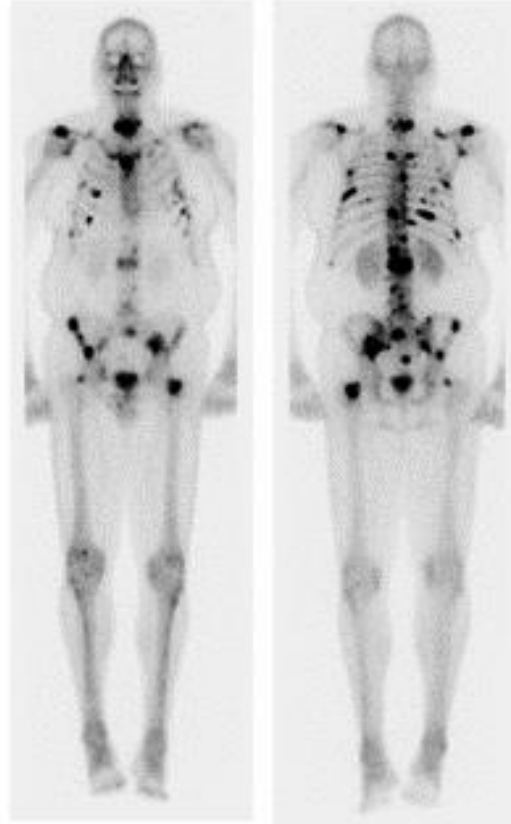




# Objectives of Screening

- Reduction in mortality due to PCa
- Maintain Quality of Life

(PSA = 110.6)



Offer early PSA testing to well-informed men at elevated risk of having PCa:

- men from 50 years of age;
- men from 45 years of age and a family history of PCa;
- men of African descent from 45 years of age;
- men carrying *BRCA2* mutations from 40 years of age.

## Men between 50 and 70 years of age with no symptoms

PSA (Prostate Specific Antigen) should not be considered a routine test, and informed consent should be obtained

### Shared decision making

If PSA is being considered then the GP should discuss patient's concerns, benefits/harms/risks of prostate assessment (See Box 1) and provide patient information leaflet

**Decision to proceed to prostate assessment –**  
PSA and DRE (Digital Rectal Examination)

**Decision not to proceed to prostate assessment at this time**

Normal age related PSA value and non-suspicious DRE

Under 50 years of age	<2µg/L
50-59	<3µg/L
60-69	<4µg/L
70+	<5µg/L

No further action required.  
A prostate review may be considered in two years

Raised age related PSA and non-suspicious DRE

Under 50 years of age	≥2µg/L
50-59	≥3µg/L
60-69	≥4µg/L
70+	≥5µg/L

Repeat PSA 6-12 weeks later, in the same laboratory

Repeated raised age related PSA

Referral to the Rapid Access Prostate Clinic

Repeated PSA within normal age related values

No referral required at this time  
A prostate review may be considered in two years

Suspicious DRE irrespective of PSA results

Referral to a Rapid Access Prostate Clinic

### BOX 1

#### Items for discussion during shared decision making in men between 50 and 70 years with no symptoms

##### Potential benefits

- Prostate assessment may lead to early detection of treatable cancer

##### Potential harms/risks

- Potential false positive and false negative results
- Risk of side effects from investigations and treatment
- Unnecessary anxiety for the patient and their family

##### Patient groups at higher risk of prostate cancer

- African ethnicity
- Increased risk with number of family members and early age of onset (<50)
- Increased risk of aggressive disease in patients with BRCA1/2 mutations



# Men between 50 and 70 years of age with no symptoms

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## Shared decision making

If PSA is being considered then the GP should discuss patient's concerns, benefits/harms/risks of prostate assessment (See Box 1) and provide patient information leaflet

## Raised age related PSA and non-suspicious DRE

Under 50 years of age	$\geq 2\mu\text{g/L}$
50-59	$\geq 3\mu\text{g/L}$
60-69	$\geq 4\mu\text{g/L}$
70+	$\geq 5\mu\text{g/L}$

Normal age related PSA levels

Under 50 years  
50-59  
60-69  
70+

No further action required  
A prostate assessment should be considered

Refer to the Rapid Access Prostate Clinic

No referral required at this time  
A prostate review may be considered in two years

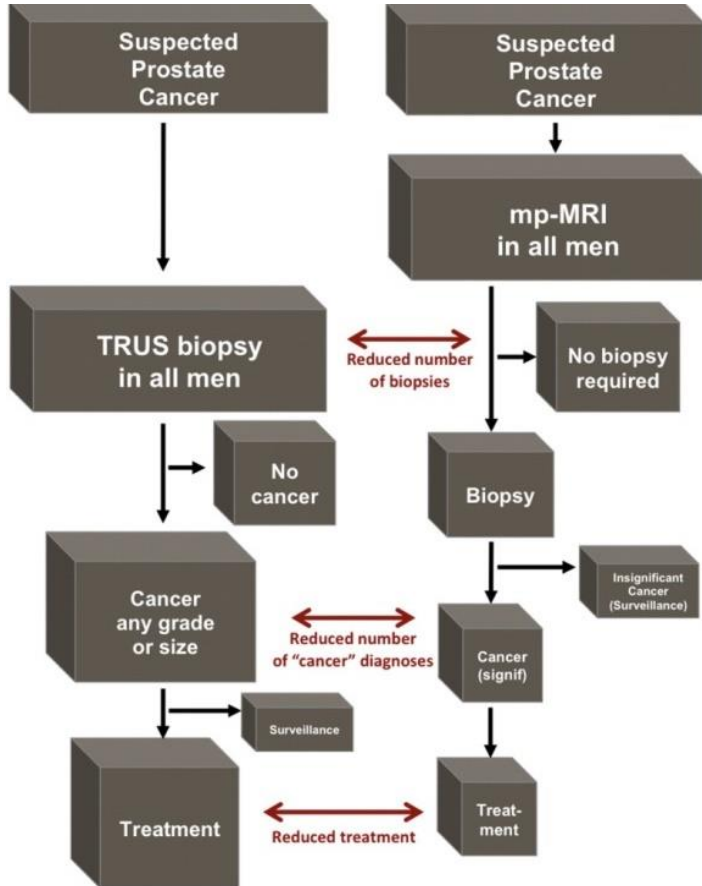
### Decision during shared decision making in men between 50 and 70 years of age with no symptoms

Shared decision making may lead to the identification of treatable cancer

**Risks**  
Positive and false positive results may lead to unnecessary treatment and treatment related anxiety for the patient

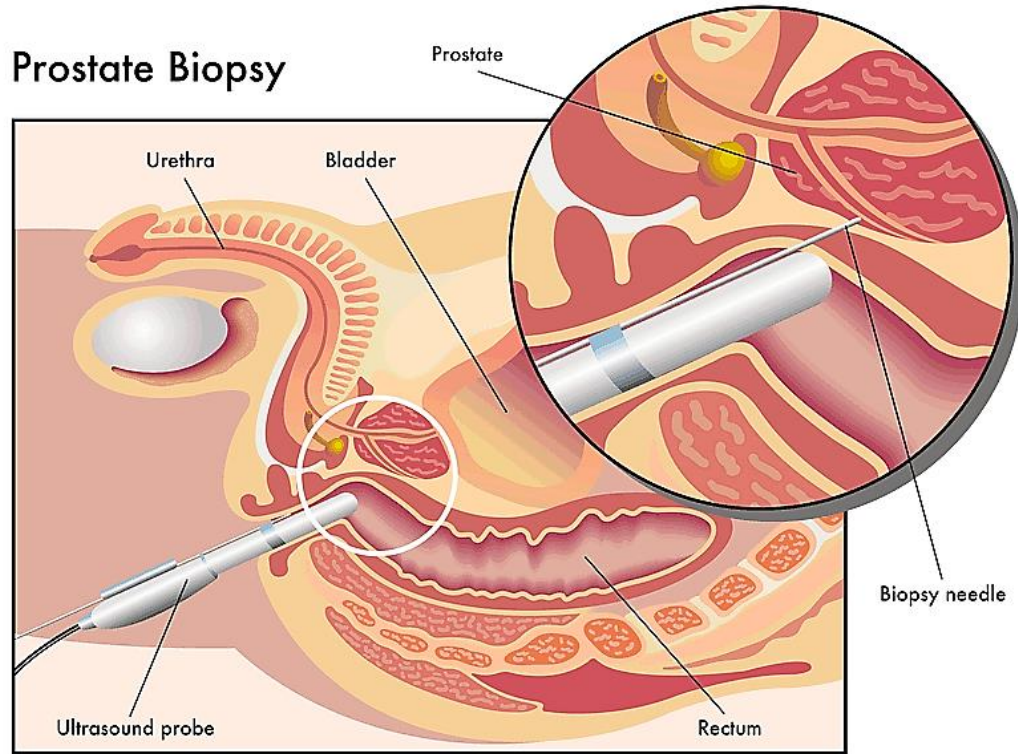
### At higher risk

- African ethnicity
- Increased risk with number of family members and early age of onset (<50)
- Increased risk of aggressive disease in patients with BRCA1/2 mutations



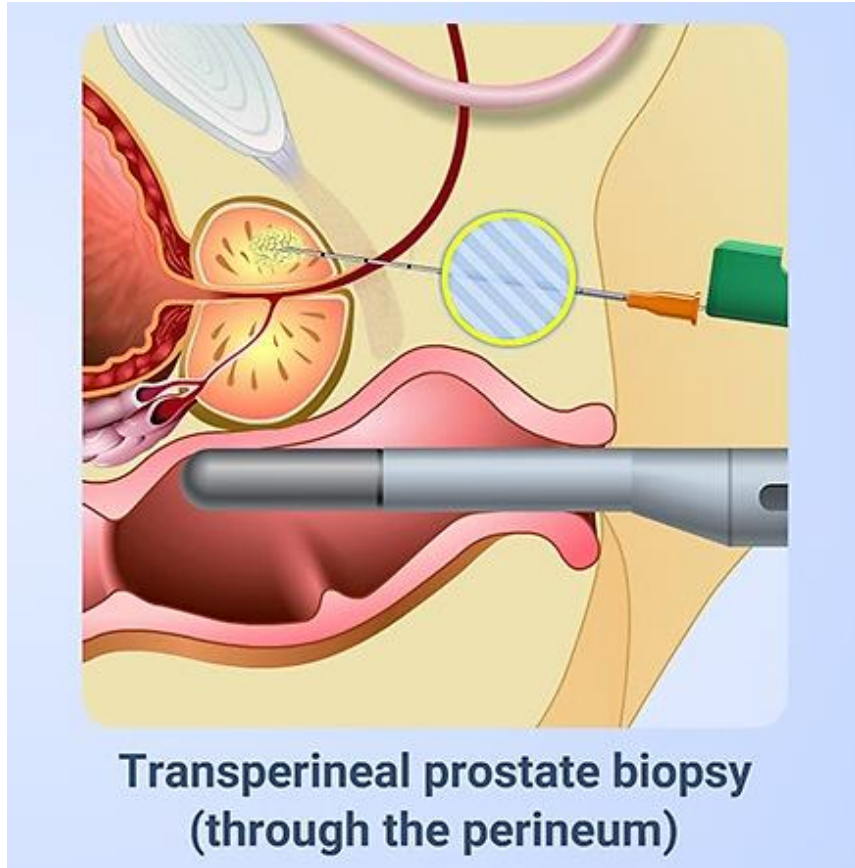
- MRI prostate is now the **standard of care** investigation for an elevated PSA
- **All** men should have a pre-biopsy MRI

# TRUS Biopsy of the Prostate



- Sepsis Rate 3-4%

# Transperineal Biopsy of the Prostate



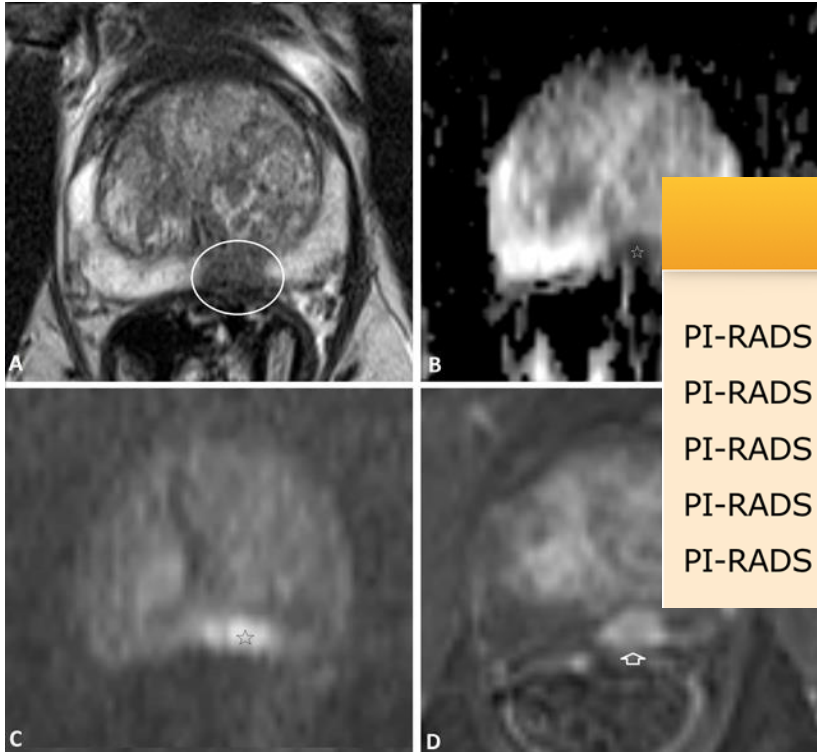
- Sepsis Rate 0.1-0.9%

# Transperineal Prostate (TP) Biopsies - Beacon

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- All prostate biopsies in Beacon Hospital are TP MRI guided
- Infection rates (almost 0%)
- No pain (GA day case procedures)
- MRI before prostate biopsy = increased accuracy
- Overall better patient experience

# Multiparametric MRI Prostate



## PI-RADS

PI-RADS 1 = Very low (clinically significant cancer highly unlikely)

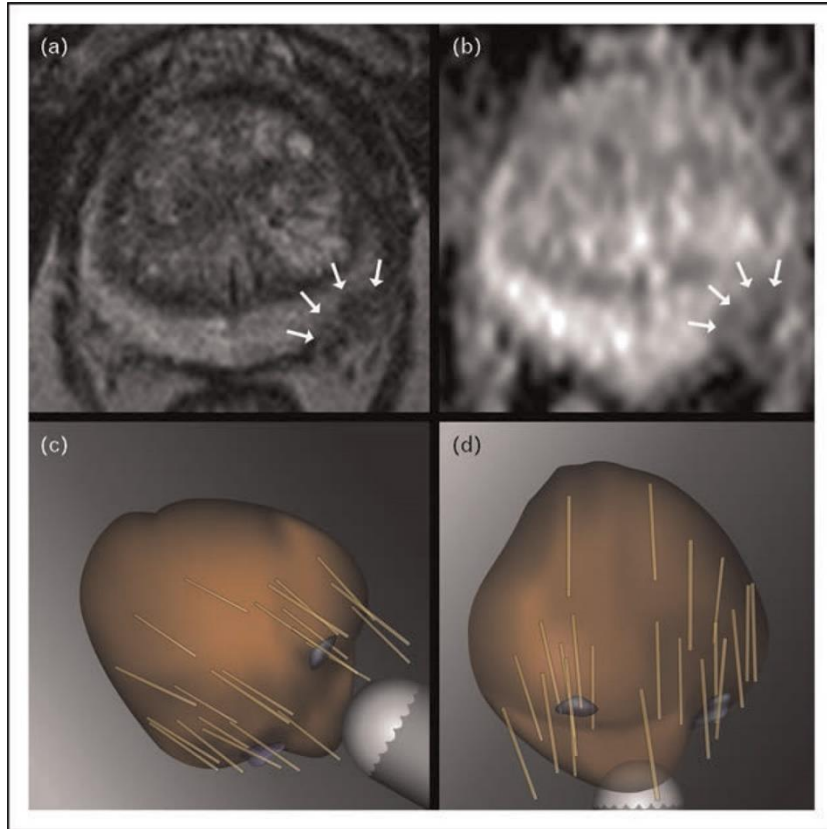
PI-RADS 2 = Low (clinically significant cancer unlikely)

PI-RADS 3 = Intermediate (clinically significant cancer equivocal)

PI-RADS 4 = High (clinically significant cancer likely)

PI-RADS 5 = Very high (clinically significant cancer highly likely)

# MRI Guided Prostate Biopsies



# Diagnostics of Localised Prostate Cancer

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- **All** men should be part of a multidisciplinary team (MDT) approach
- Men should know that they have options in how to manage their cancer:
  - Active Surveillance
  - Robotic Radical Prostatectomy
  - Radical Radiotherapy
  - Brachytherapy
  - Watch and Wait





## MDT - Beacon

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- Urologist/Surgeon
- Radiation Oncologist
- Clinical Nurse Specialist - PCa
- Urology Nurse
- Physiotherapist - Pelvic Floor
- Medical Oncologist
- Radiologist

Patient  
Empowerment



Health  
Education



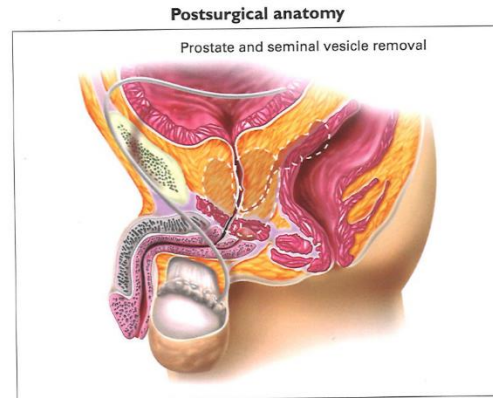
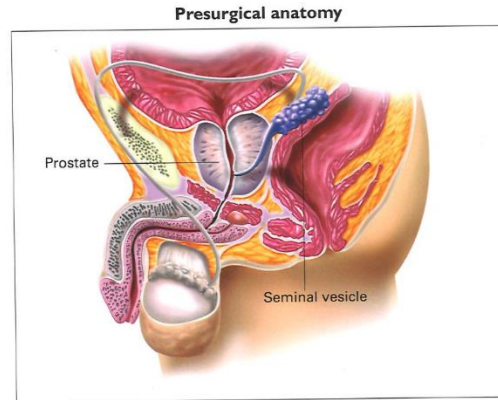
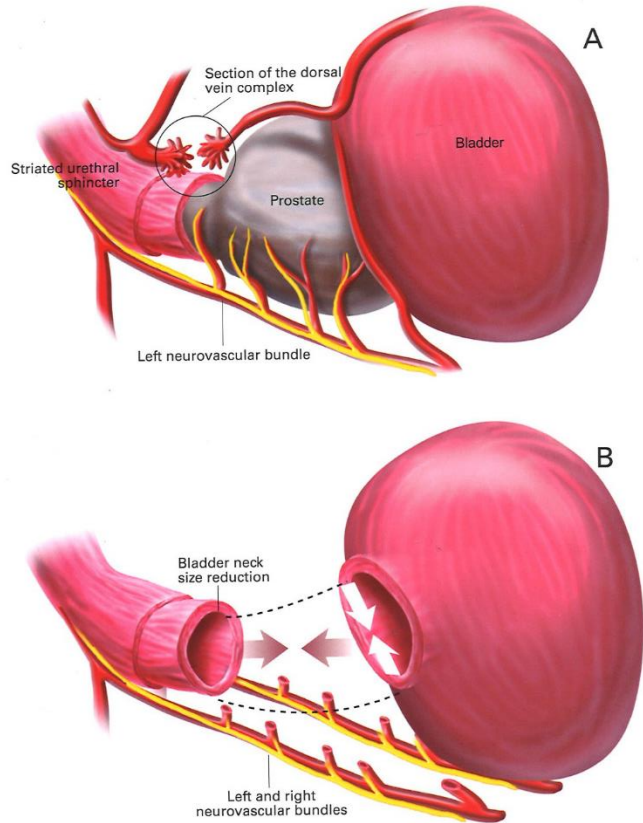
Better  
Healthcare  
Outcomes

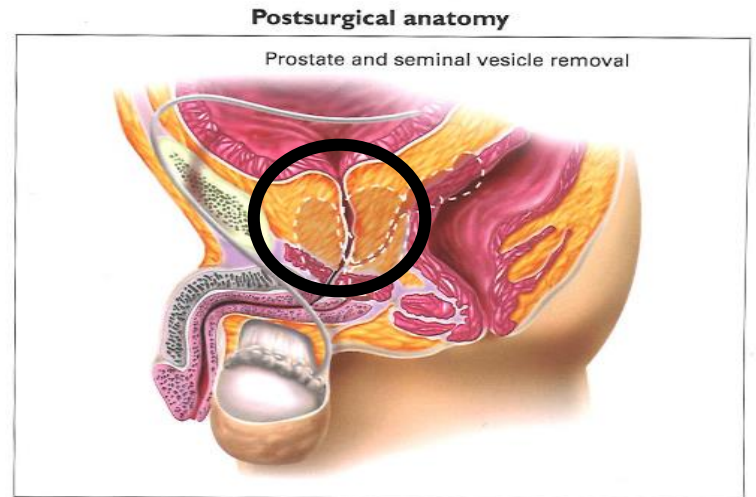
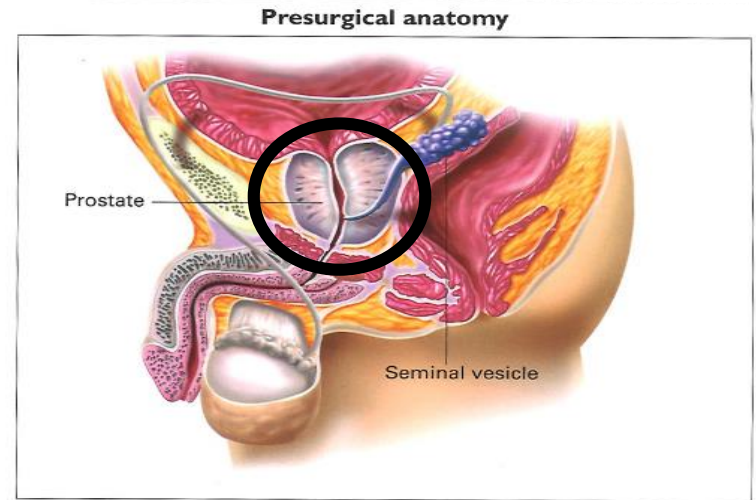
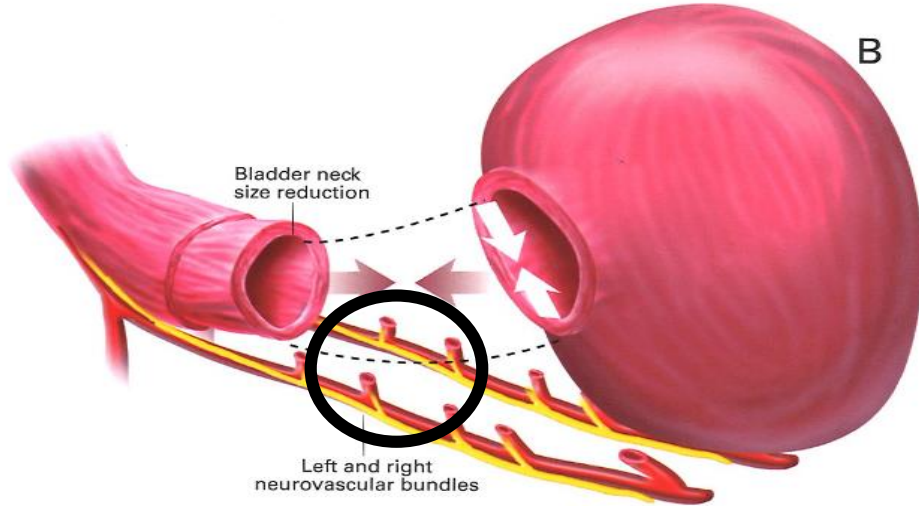
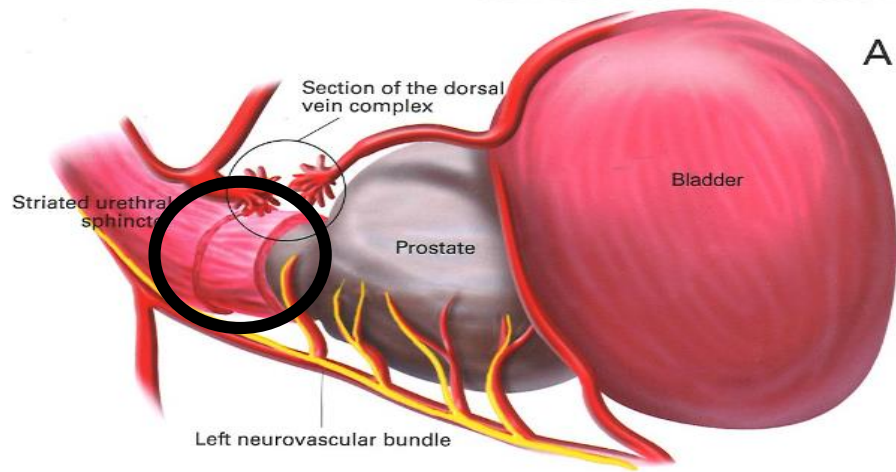
# Robotics and Prostate Cancer Surgery

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## Robotic Assisted Laparoscopic Prostatectomy (RALP)

# Principles of Radical Prostatectomy





# Robotic Theatre

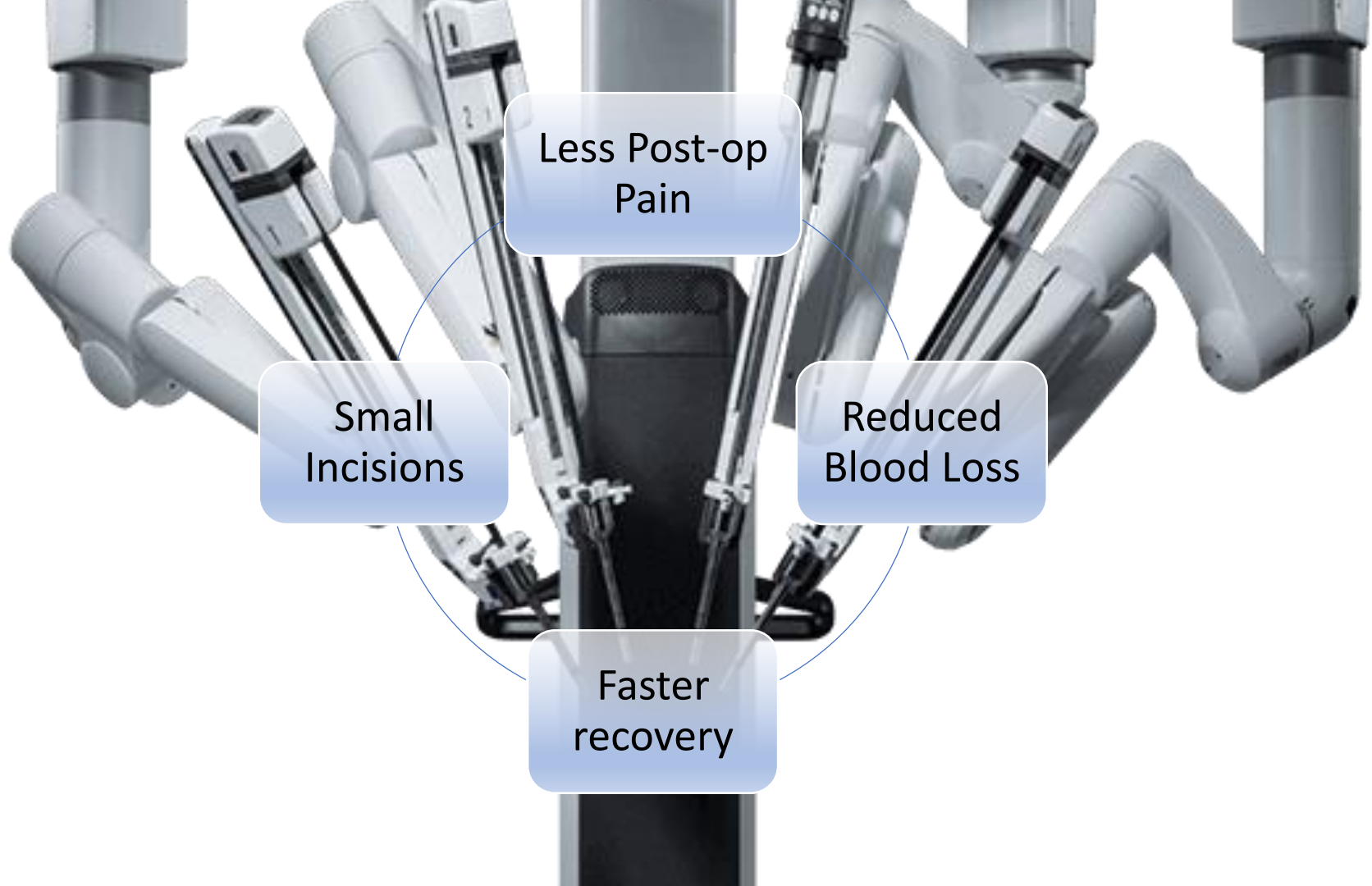


## To the Patient:

- Shorter hospitalization
- Reduced pain + discomfort
- Faster recovery time + return to normal activities
- Smaller incisions/scars
- Reduced blood loss + transfusions

## For the Surgeon:

- Greater visualization
- Enhanced dexterity
- Greater precision



Less Post-op  
Pain

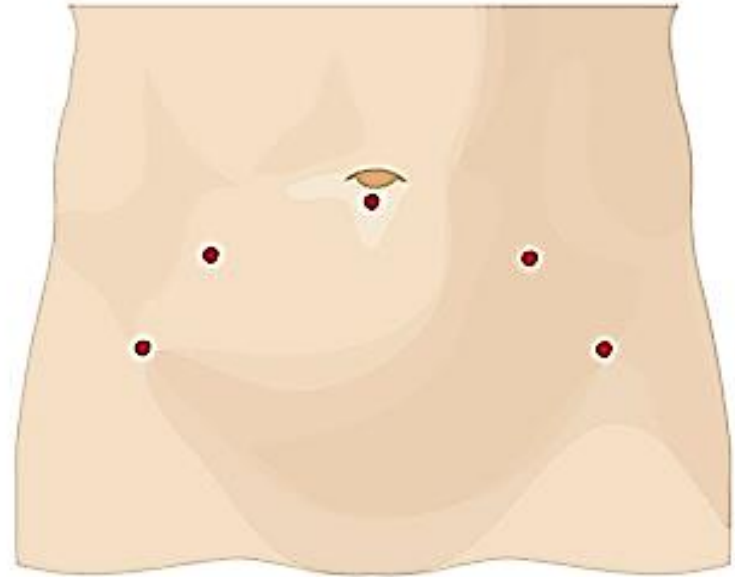
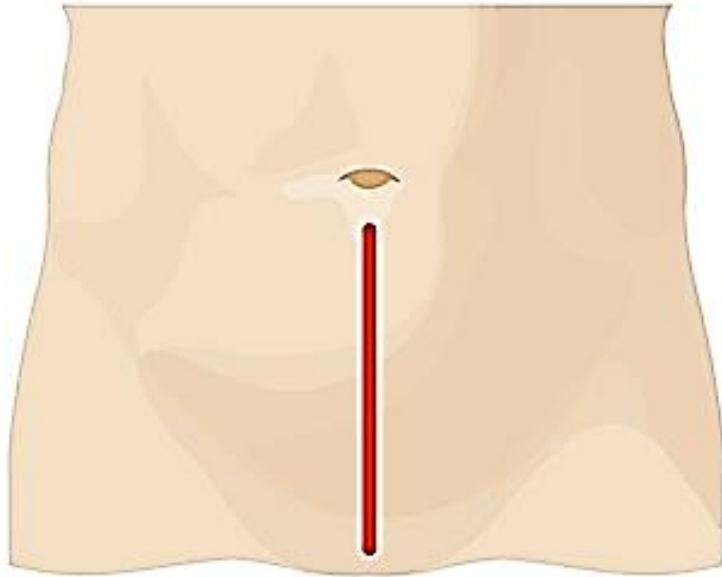
Small  
Incisions

Reduced  
Blood Loss

Faster  
recovery

# Incision

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# Advantages to the Surgeon

- Greater Vision: 3D High Definition
- Enhanced dexterity
  - Better reconstructive tool
  - Camera stability, no tremor
- Greater precision
- **Training and Expertise\*\*\***
  - **TEAM**



# RALP – Urethral Anastomosis



## Take Home Messages

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- Offer PSA screening to well informed men (>50 yrs)
  - Identify men at more risk for PCa: +FHx, African decent
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- All men should have an MRI prostate before biopsy
  - Transperineal prostate biopsies should be the standard of care
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- Multidisciplinary approach important
  - Robotic prostatectomy – significant recovery advantage to patients

# Thank you