



Erectile Dysfunction and Urinary Incontinence After Treatment for Prostate Cancer

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Overview

- ▶ Most Common Treatments for Prostate cancer
 - ▶ Radiation
 - ▶ Prostatectomy
- ▶ Side Effect of Those Treatments
 - ▶ Erectile Dysfunction (ED)
 - ▶ Urinary Incontinence
- ▶ ED
 - ▶ Reasons
 - ▶ Treatment Options
- ▶ Urinary Incontinence
 - ▶ Reasons
 - ▶ Treatment Options

Treatment For Prostate Cancer

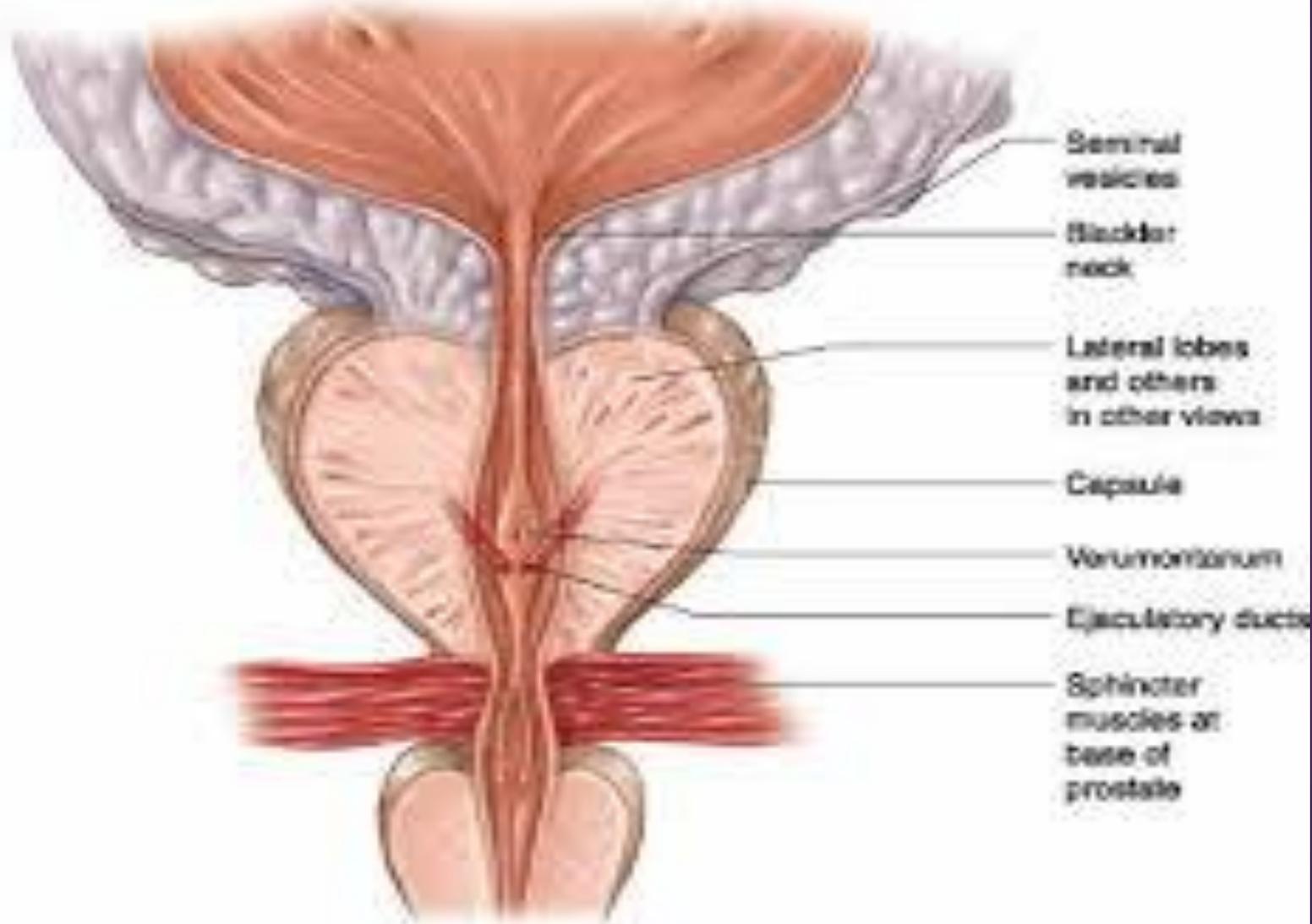
- ▶ Radiation
 - ▶ External Beam Radiation
 - ▶ Proton Beam Radiation
 - ▶ Brachytherapy (seeds)
- ▶ Prostatectomy(Surgical removal of the Prostate)
 - ▶ Open Surgery
 - ▶ Laparoscopic
 - ▶ Robotic

Unfortunate Side Effects after Treatment

1. Erectile Dysfunction
2. Urinary Incontinence
 1. Urgency and Frequency (Radiation)
 2. Obstruction (Radiation)
 3. Stress Incontinence (Surgery)



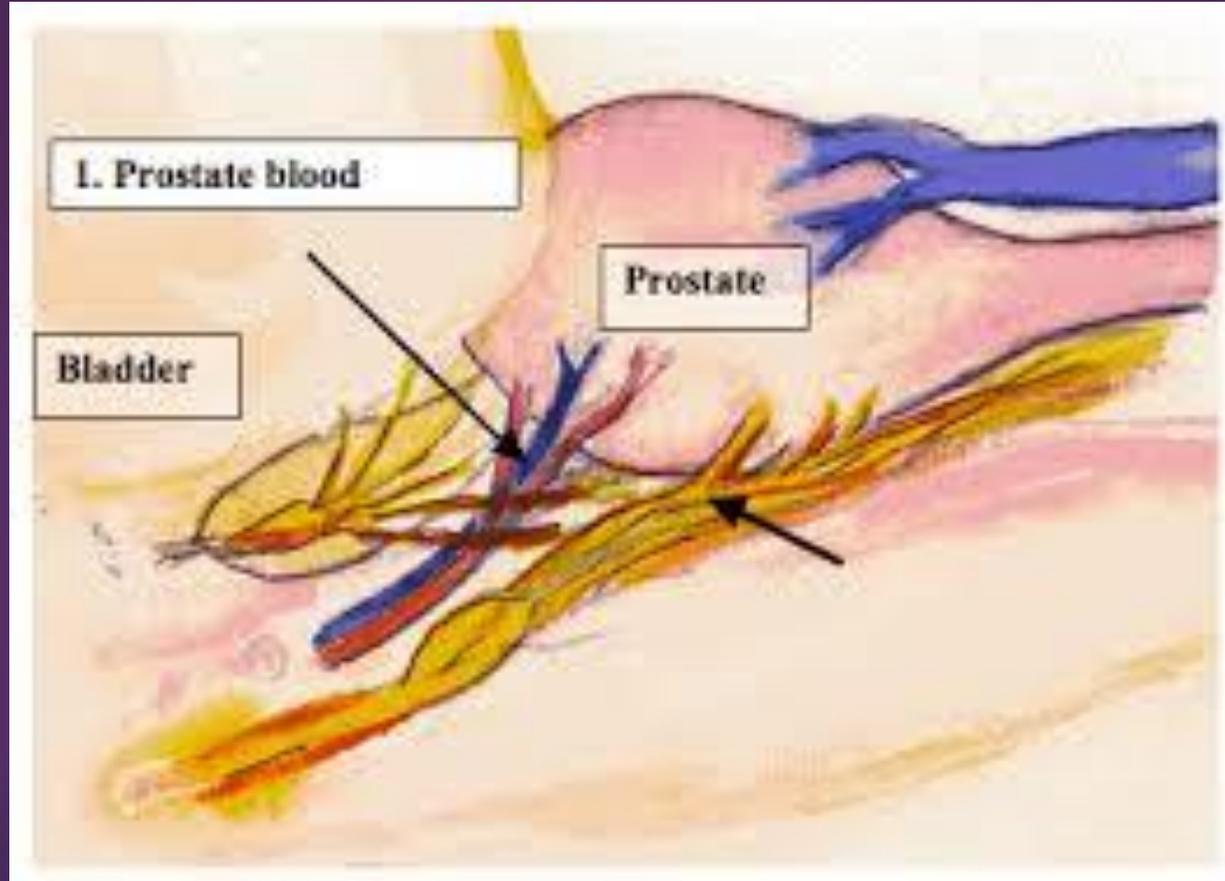
Front View



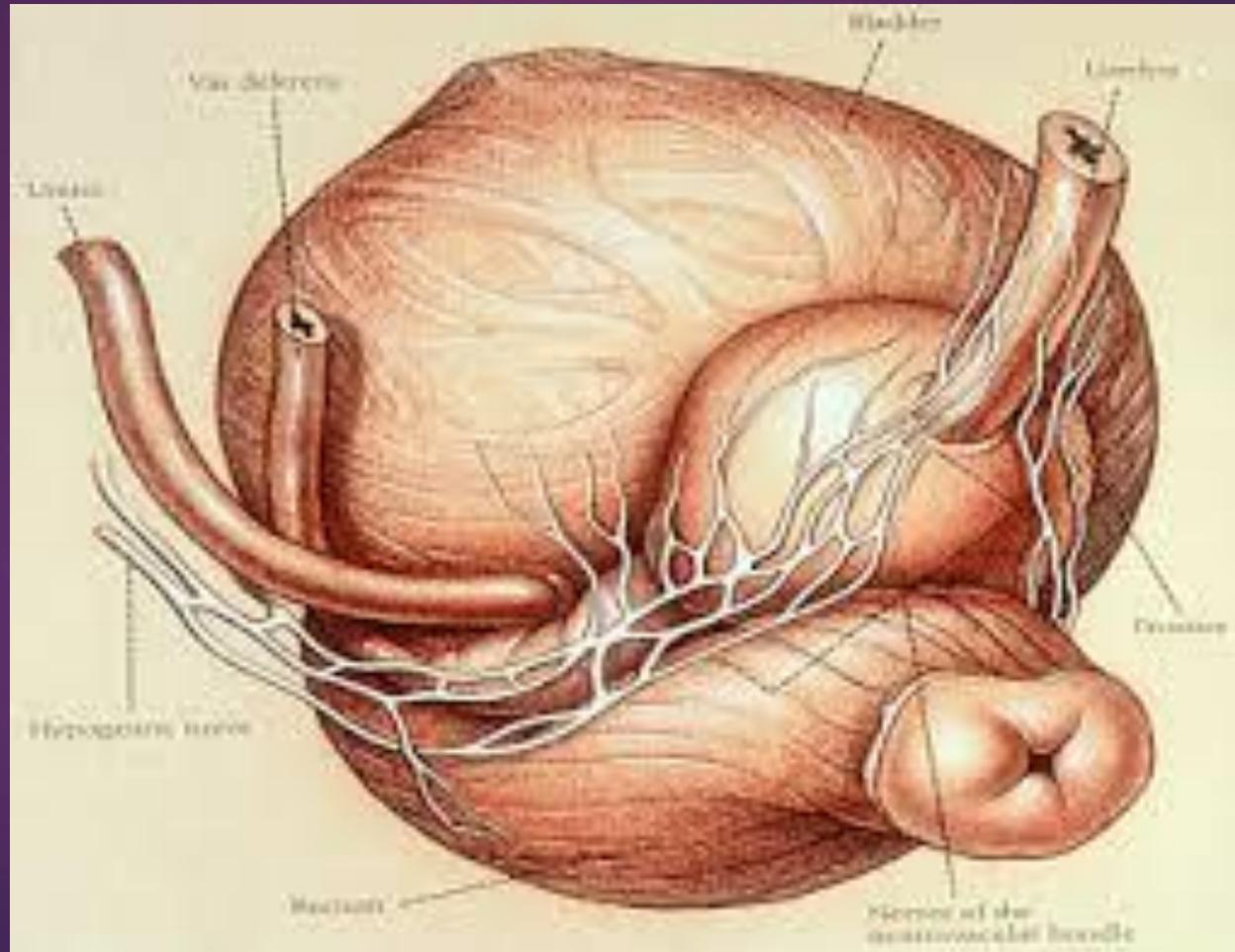
ED

- ▶ Why Does it Happen
 - ▶ Erections largely controlled by a structure of nerves and blood vessels called the Neurovascular Bundle
 - ▶ During Treatment (Radiation or Surgery), These nerves and blood vessels are affected
 - ▶ This causes difficulties with erections after treatment

Neurovascular Bundle



The Neurovascular Bundle



ED Treatments

1. Oral Medications
2. VED
3. Intra-urethral medications
4. Intra-corporeal Medications (Injections)
5. Penile Implants
 - Malleable
 - Inflatable

ED Treatments

- ▶ Oral Medication
 - ▶ Cialis
 - ▶ Two ways to take it (as needed or daily)
 - ▶ As needed.... 5,10,20mg
 - ▶ Daily....5mg
 - ▶ Viagra
 - ▶ Only can take on an as needed basis
 - ▶ 25mg, 50mg, 100mg
 - ▶ Levitra
 - ▶ Also only on an as needed basis
 - ▶ 2.5mg, 5mg, 10mg, 20mg

Side Effects of Oral treatments for ED

- ▶ General medication side effects
 - ▶ Facial Flushing
 - ▶ Headache
 - ▶ Muscle Aches
 - ▶ Blurry Vision
- ▶ Priapism
 - ▶ An erection Lasting over 4 hours
 - ▶ Very Rare
 - ▶ Need to go immediately to the Emergency Room

VED

- ▶ Vacuum Erection Device
- ▶ Uses Pump to induce an erection and then a Band to constrict blood flow and Keep an erection
- ▶ Lack of Spontaneity is the biggest negative Factor



Intraurethral Treatment for ED

- ▶ MUSE
 - ▶ Alprostadil
 - ▶ Comes in Pellet Form that is injected in the urethral Meatus
- ▶ Side Effects
 - ▶ Penile Pain and Burning
 - ▶ Priapism

Intracorporeal Injections

- ▶ Bi-Mix
 - ▶ Papavarine
 - ▶ Phentolamine
- ▶ Tri-Mix
 - ▶ Alprostadil
 - ▶ Papaverine
 - ▶ Phentolamine
- ▶ Need To Be shown how to use this for the first dose

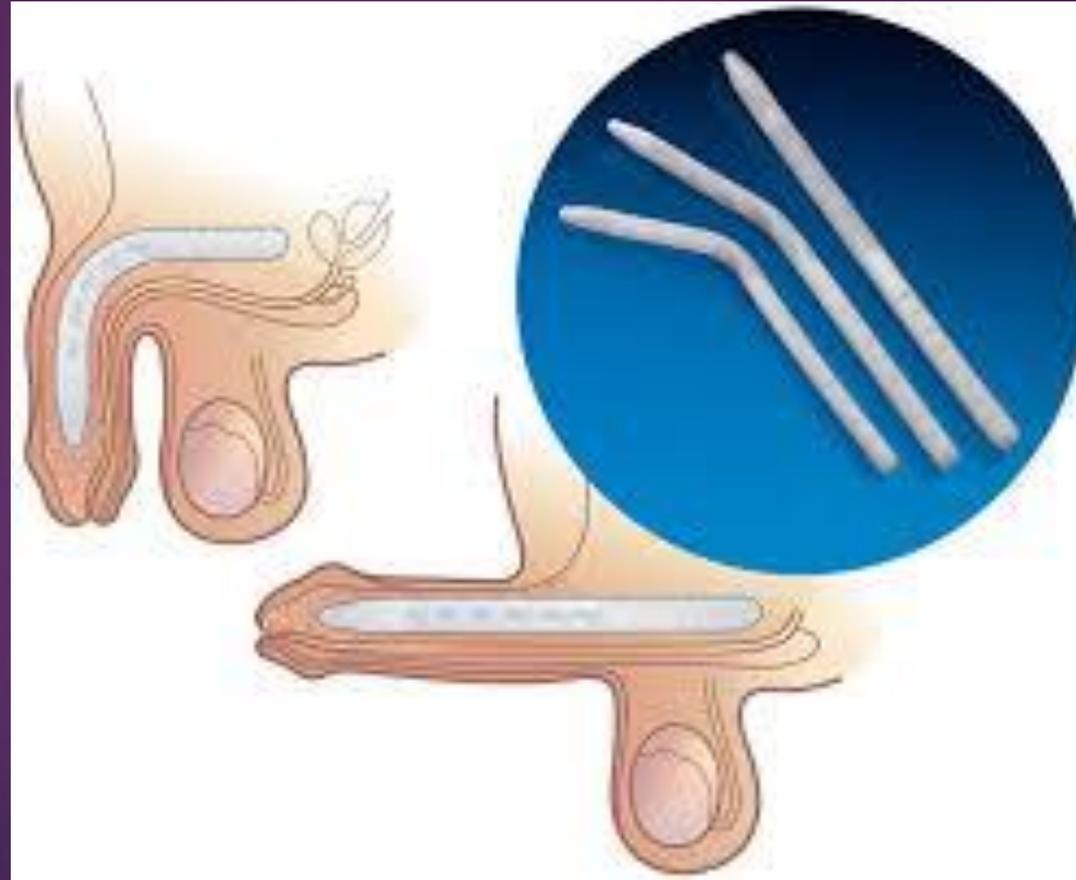
Side Effects from the Injections

- ▶ Penile Pain
- ▶ Penile Bruising
- ▶ Priapism
 - ▶ Much more common than with oral meds

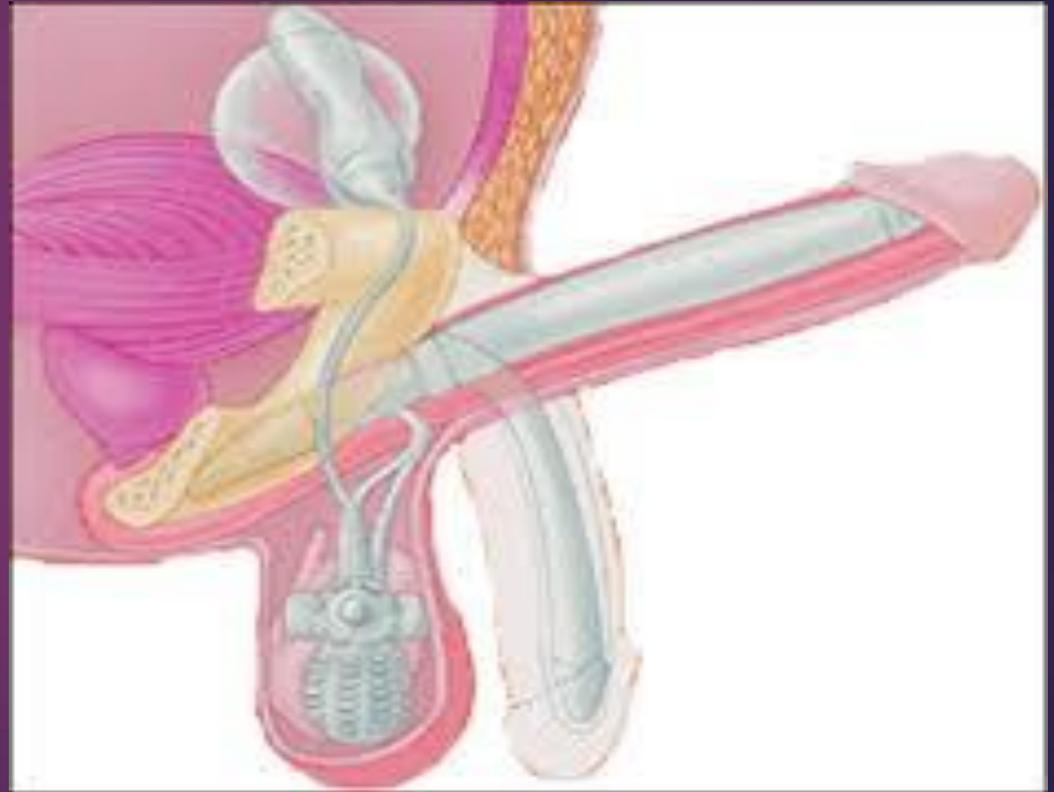
Penile Implants

- ▶ Used as a last resort when all other treatments have failed
- ▶ Requires a surgical procedure
- ▶ Two Types
 - ▶ Malleable
 - ▶ Inflatable

Malleable Penile Implants



Inflatable Penile Implants



Inflatable Penile Implants

- ▶ Requires a Surgical Procedure to place them
- ▶ Complications from penile Implants
 - ▶ Erection does not feel the same
 - ▶ Erection likely will be shorter
 - ▶ Infection of the implant
 - ▶ Erosion of the Implant

Urinary Incontinence After Treatment for Prostate Cancer

- ▶ Two Main Types of Incontinence
 - ▶ Urgency, Frequency
 - ▶ Stress Incontinence
- ▶ The type of incontinence depends on what treatment is received
 - ▶ Radiation tends to cause urgency and frequency
 - ▶ Surgery tends to produce Stress Incontinence

Urgency and Frequency (Urge Incontinence)

- ▶ Urgency
 - ▶ The sudden and compelling urge to go to the bathroom with very little warning
- ▶ Frequency
 - ▶ Going to the bathroom too often
- ▶ After Radiation
 - ▶ Occurs due to the irritation of the Urinary Bladder
- ▶ After Removal of the Prostate
 - ▶ Occurs due to removal of the obstruction that was previously there
 - ▶ Surgery Itself can irritate the bladder as well

Treatment for Urgency and Frequency

- ▶ Oral Medications
 - ▶ Oxybutynin, Ditropan, Vesicare, Toviaz Myrbetriq
 - ▶ Most have side effects of dry eyes, dry mouth and constipation
- ▶ Intra-vesicular mediations (Medicine put in the bladder)
 - ▶ Botox
- ▶ Nerve Stimulator Devices
 - ▶ Posterior Tibial Nerve Stimulation
 - ▶ Interstim

Stress Incontinence

- ▶ What is it?
 - ▶ Involuntary leakage of urine with increase in abdominal pressure
- ▶ There is no one reason why it occurs
 - ▶ Main reason is likely from the disruption of the normal anatomy after the prostate is removed

Stress Incontinence after Prostate Removal

- ▶ ALWAYS Happens
- ▶ The severity varies dramatically between individuals
- ▶ Tends to Resolve and improve spontaneously
- ▶ Kegel Exercises help speed up return to normal urinary function

Treatment of Stress Incontinence

- ▶ 1. Kegel Exercises
- ▶ 2. Male Sling
- ▶ 3. Artificial Urinary Sphincter

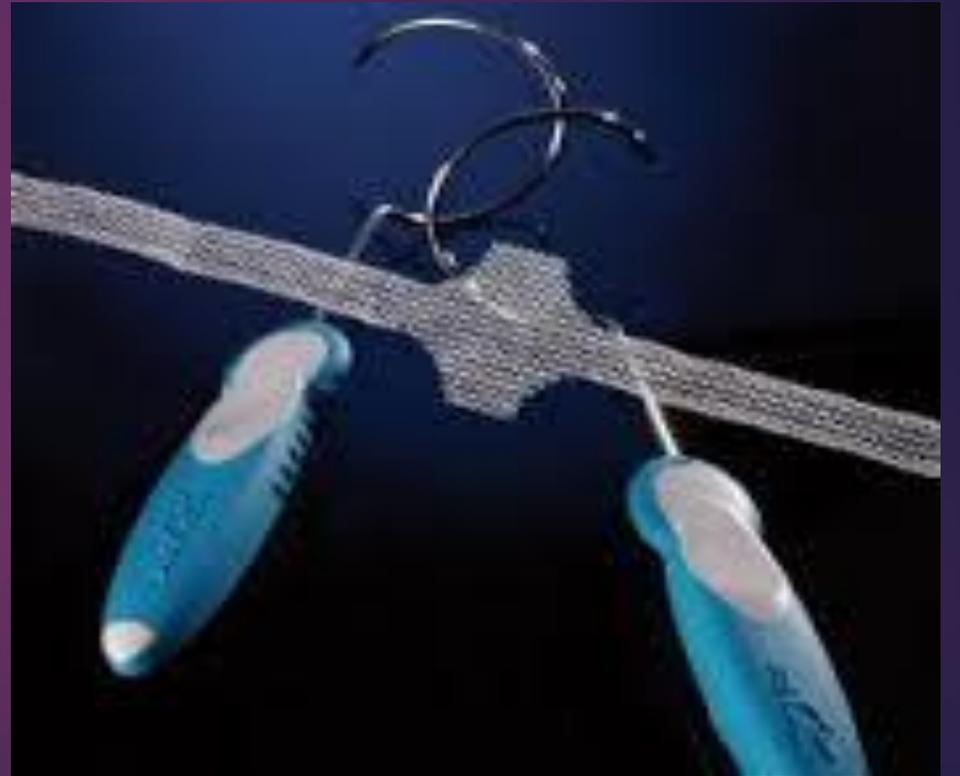
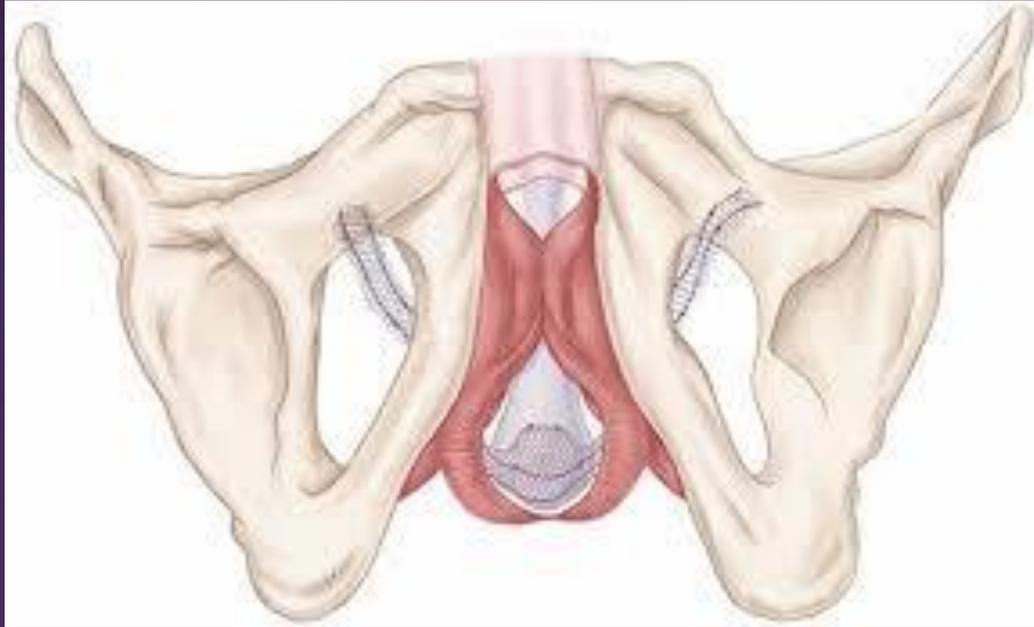
Kegel Exercises

- ▶ Pelvic Floor Strengthening Exercises
- ▶ How?
 - ▶ Imagine you are urinating and then you are told to stop your urinary stream
 - ▶ Squeeze and hold for about 10 seconds
 - ▶ Do this 10 times in a row for at least 4 sets per day
 - ▶ The more the better

Kegel Exercises

- ▶ Expect to see improvement in Stress Incontinence within weeks to months
 - ▶ Improvement usually measured by number of Pads needed
- ▶ Stress Incontinence usually resolves with this method within a year but everyone is different
- ▶ If the stress incontinence is still a problem after a year.....

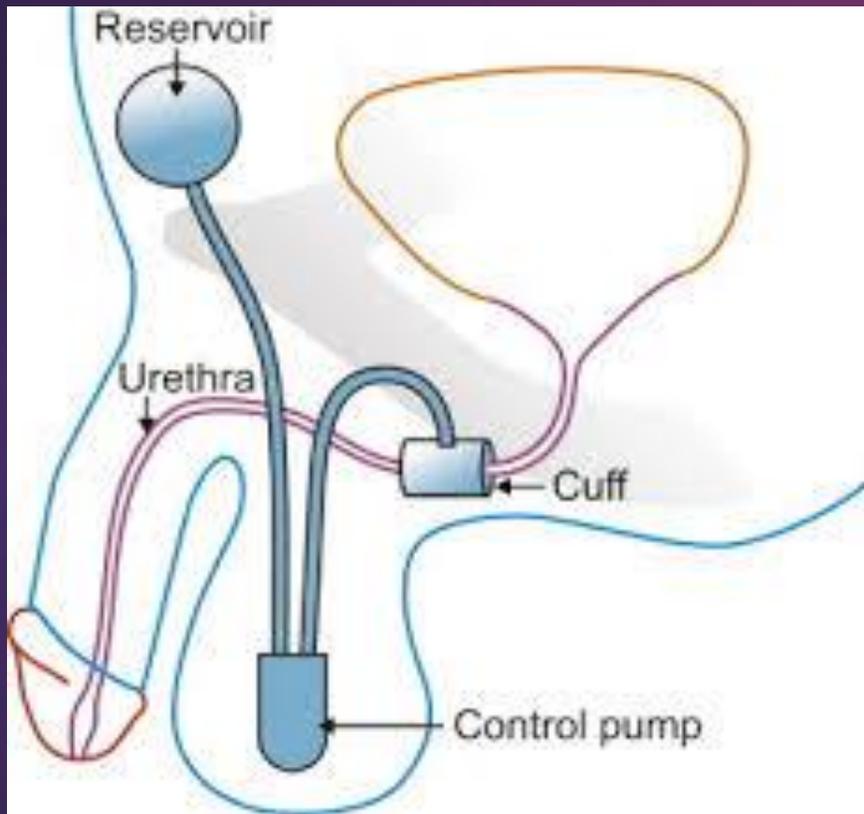
Male Sling



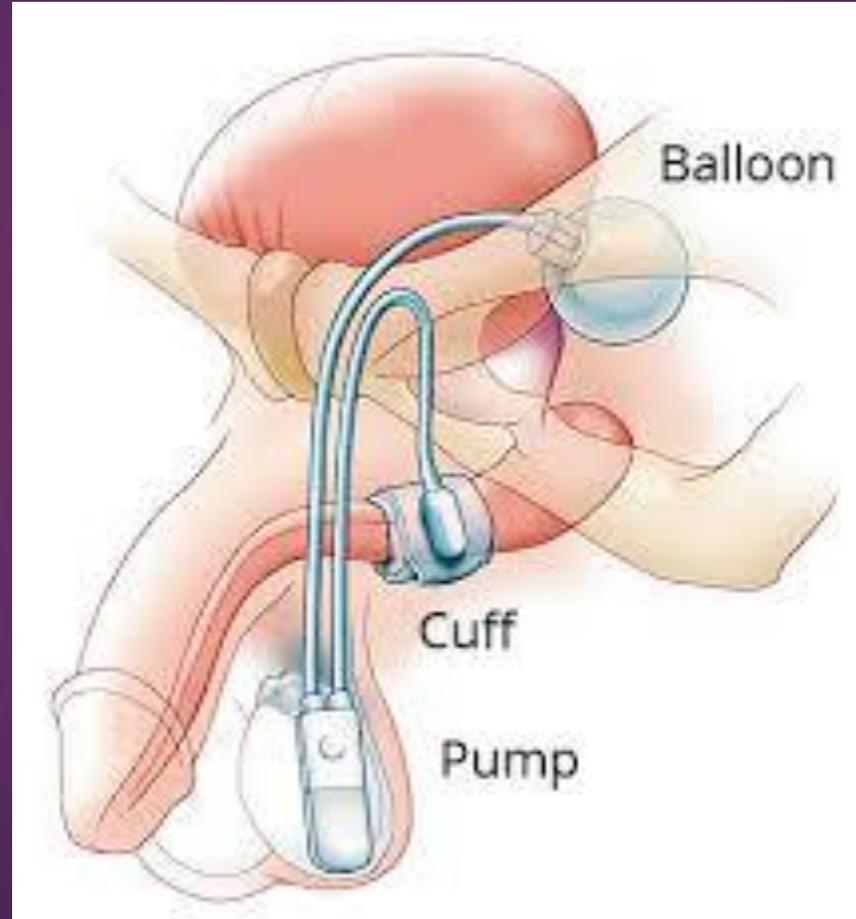
Male Slings

- ▶ Surgical Placement
- ▶ Increases resistance in the urethra to prevent leakage
- ▶ Complication
 - ▶ Infection,
 - ▶ Erosion
 - ▶ Urinary Retention

Artificial Urinary Sphincter



Artificial Urinary Sphincter



AUS

- ▶ Also Requires Surgery To place
- ▶ Requires Manual Dexterity in order to be able to function it
- ▶ Complications
 - ▶ Infection
 - ▶ Erosion in to the Urethra
 - ▶ Mechanical Failure

Conclusions

- ▶ All Treatment for Prostate Cancer can cause side effects of Erectile dysfunction and urinary incontinence
- ▶ Many of these conditions are self limited and will resolve on their own
- ▶ There are many good treatment options for both conditons
- ▶ All Treatment options do have their own set of possible side effects and complications