

Società Medico-Chirurgica di Ferrara  
Aula Magna Nuove Cliniche, Az. Osp. Univ. Ferrara  
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## **Alterazioni funzionali del complesso vescico-sfinteriale**

# **La prevenzione dell' incontinenza dopo prostatectomia radicale**

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# INCONTINENZA URINARIA

## post- Prostatectomia Radicale

### ◆ DEFINIZIONE

✓ **Perdita urinaria incontrollata a riposo, da stress, ecc.**

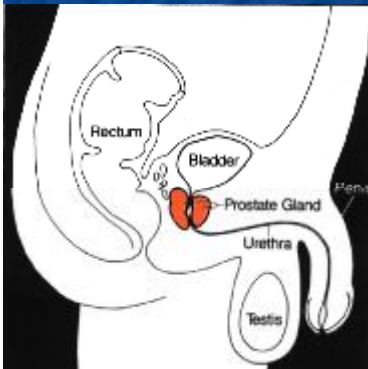
### ◆ ENTITA'

✓ PADS: si/no - #/die - peso

◆ alla rimozione del CV (RALP): 75% <sup>1</sup>

◆ a 3-6 mesi: 0.8-87 % <sup>2</sup>

◆ a 12 mesi: 5-44 % <sup>3</sup>



1. Coelho RF et al, BJU Int 2009;104:1428

2. Van Kampen M et al, Lancet 2000; 355: 98

3. Bauer RM et al, Eur Urol 2009; 55: 322

# INCONTINENZA URINARIA

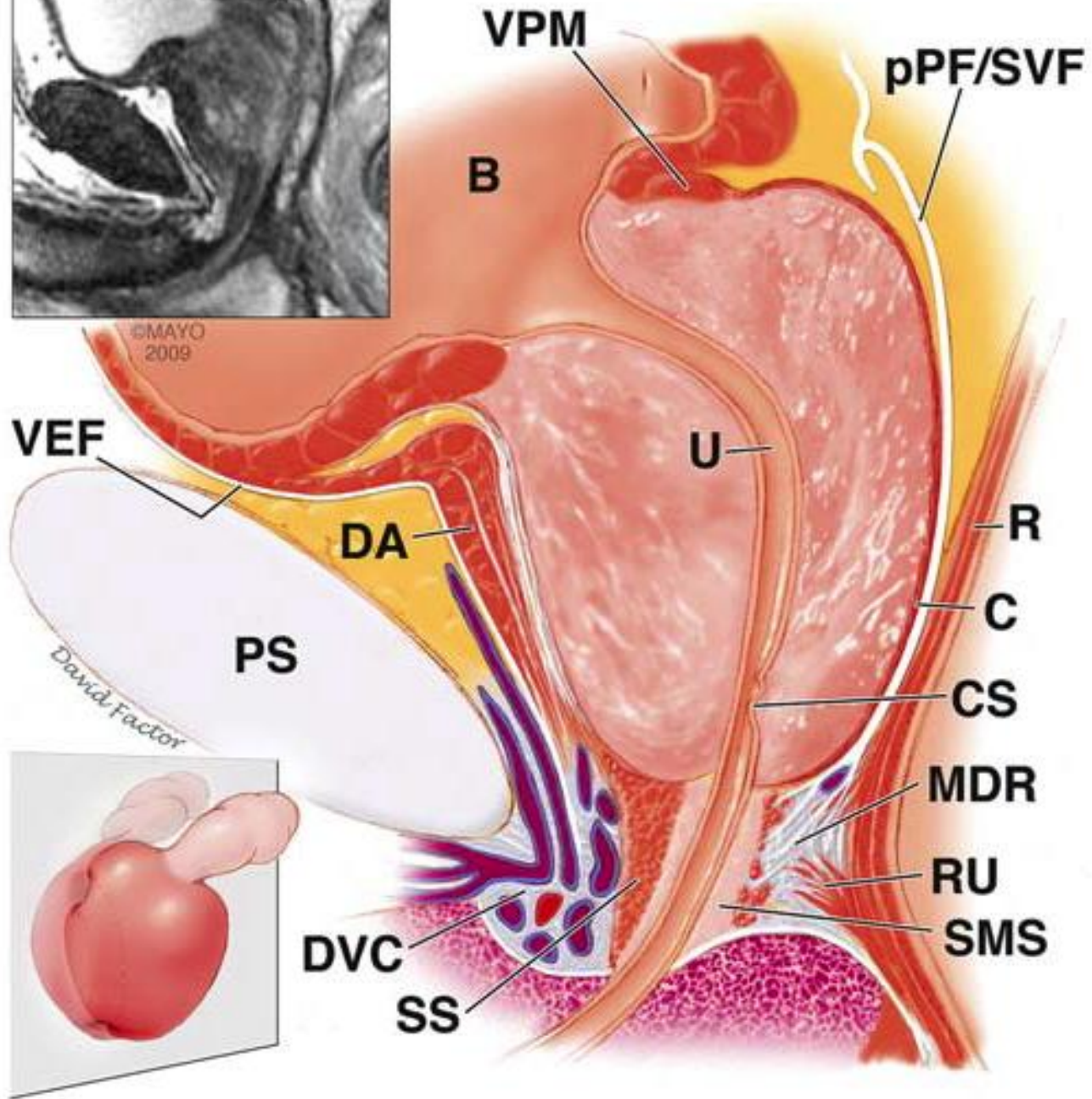
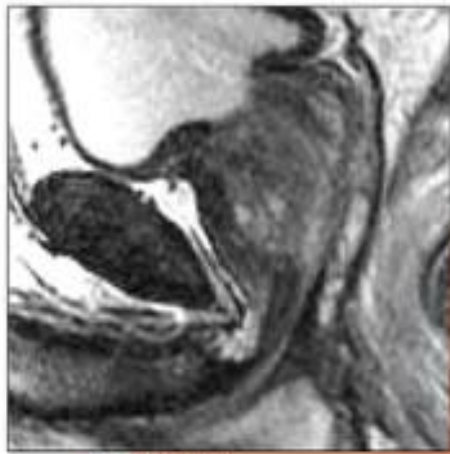
## post- Prostatectomia Radicale

	Baseline	6-12 mesi	24 mesi
Incontinenza da moderata a "big problem"	2.7%	25%	8%
Età < 60 > 2 vv / die	1.7%	13%	<b>10%</b>
Age >75 > 2 vv / die	4.1%	35%	<b>41%</b>

## Potential Preoperative Factors That Influence Post-Prostatectomy Continence

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1. Patient age
2. Patient weight/BMI
3. Preoperative erectile dysfunction
4. Preoperative voiding dysfunction
5. Prior TURP
6. Prostate volume
7. Preoperative prostate specific antigen
8. Clinical pathologic stage
9. Preoperative Gleason score
10. Preoperative physiotherapy

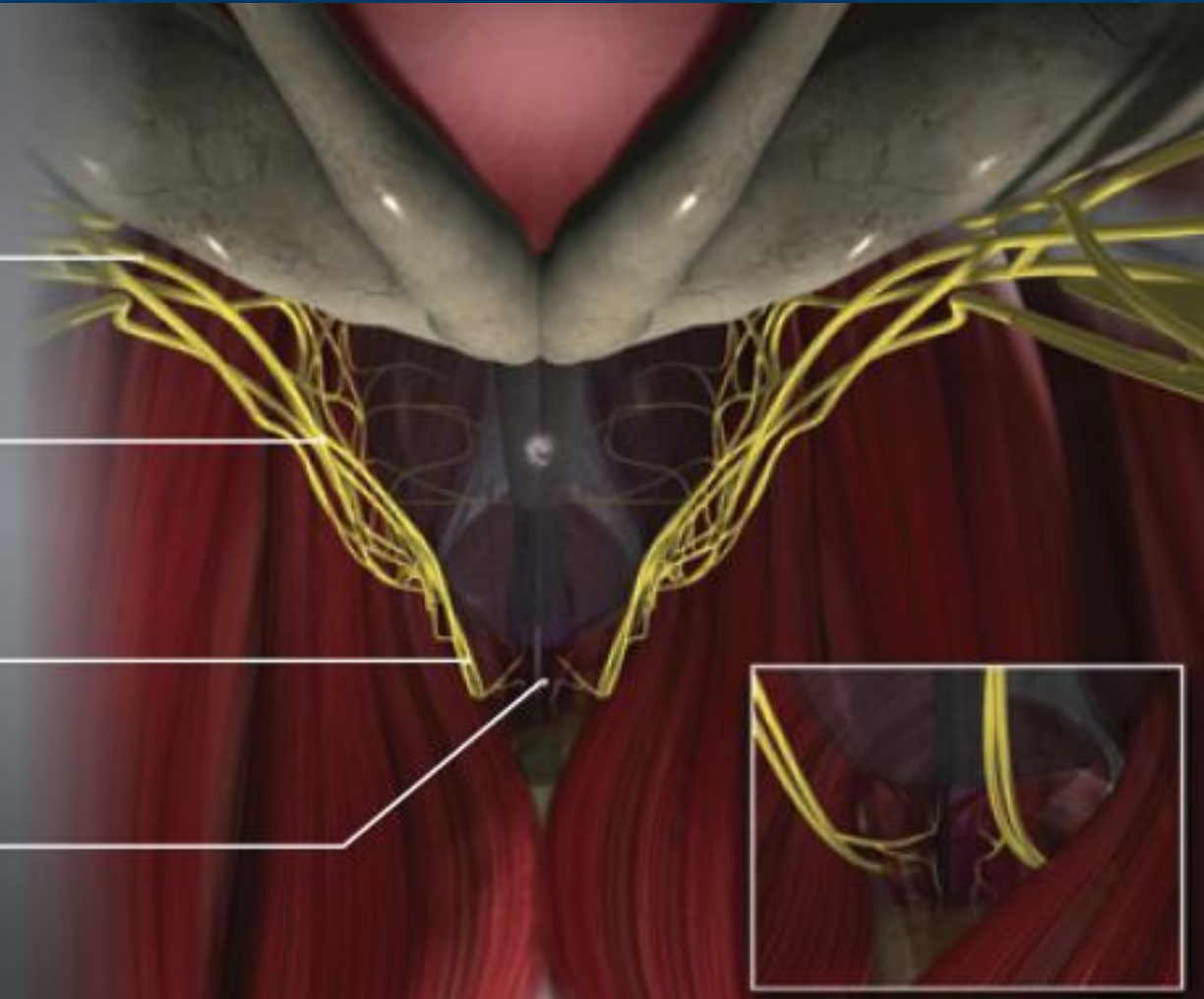


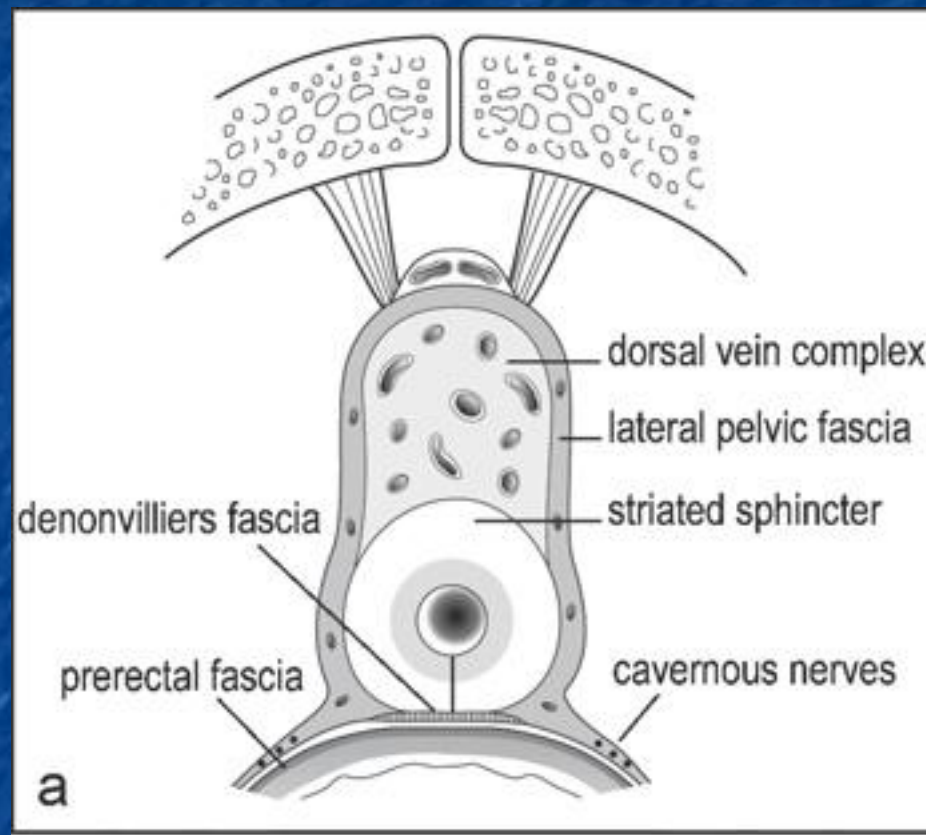
Pelvic plexus

Neurovascular  
bundle

Cavernosal nerve

Smooth muscular  
part of urethral  
sphincter



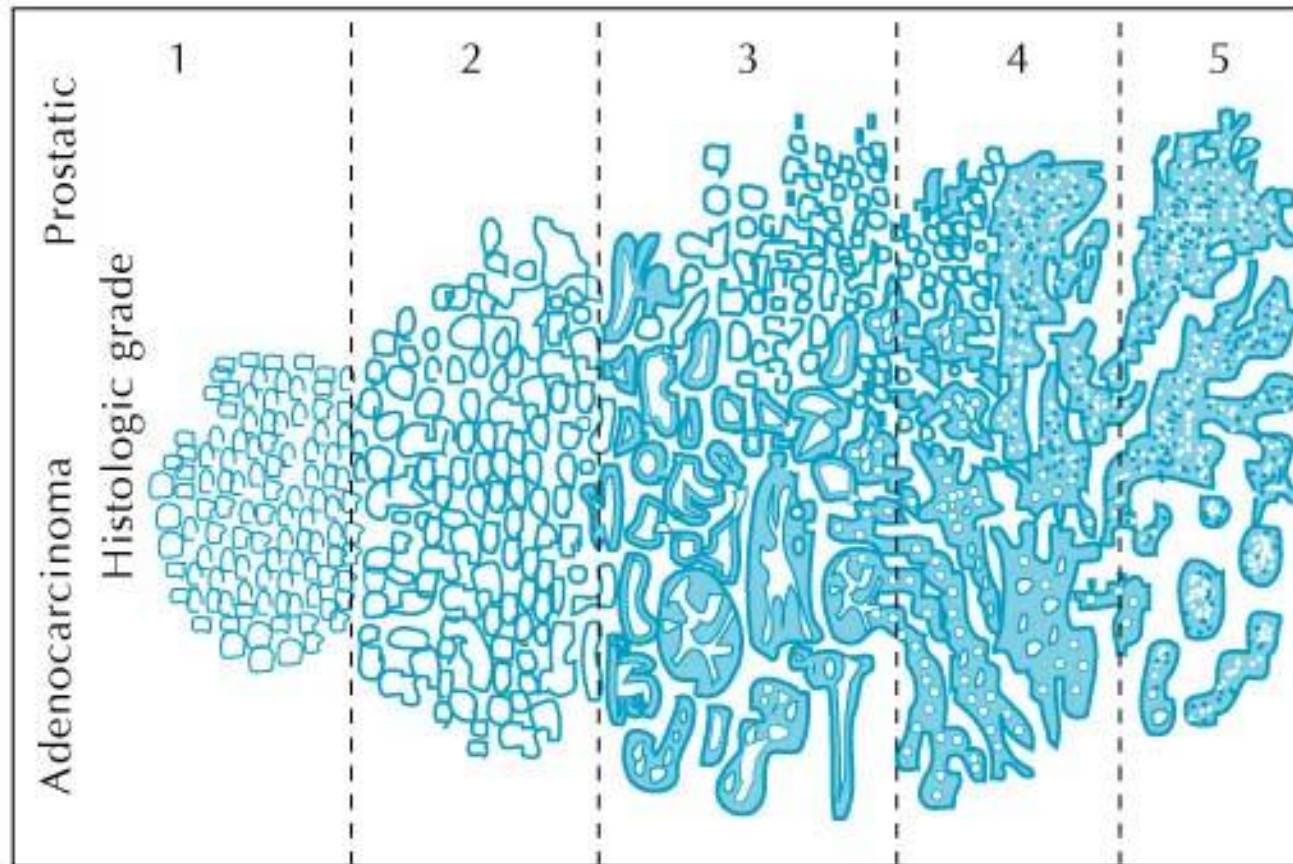




SBoyd

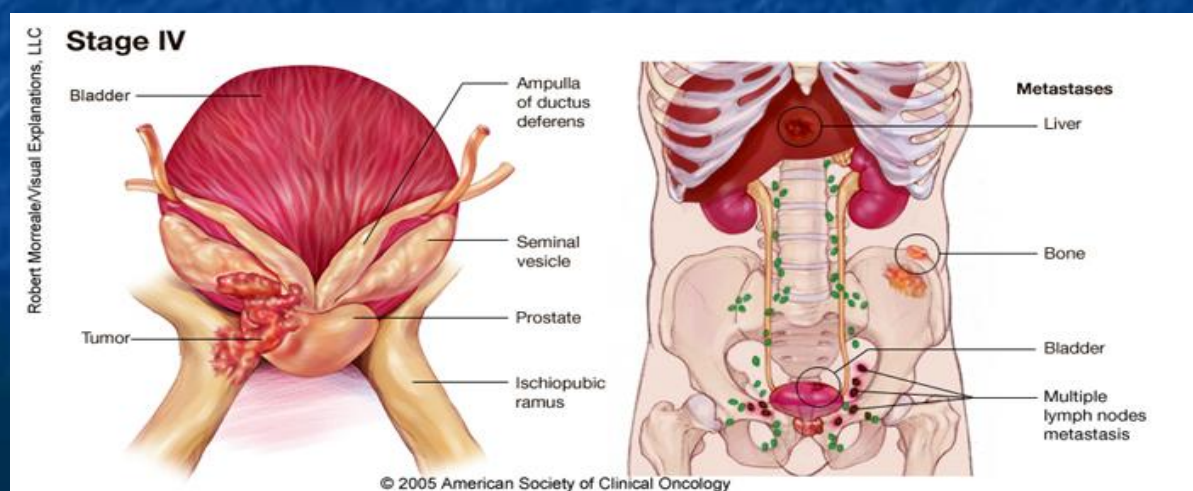
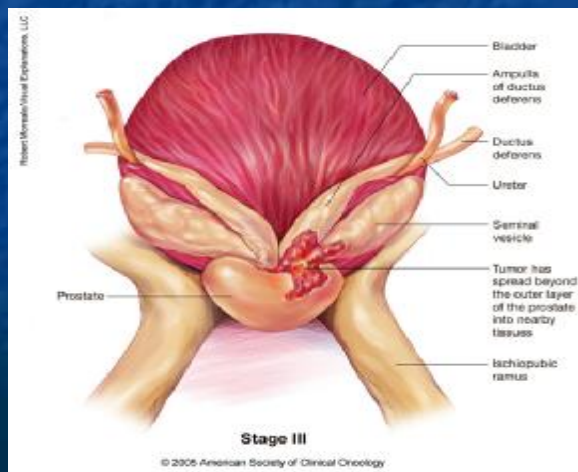
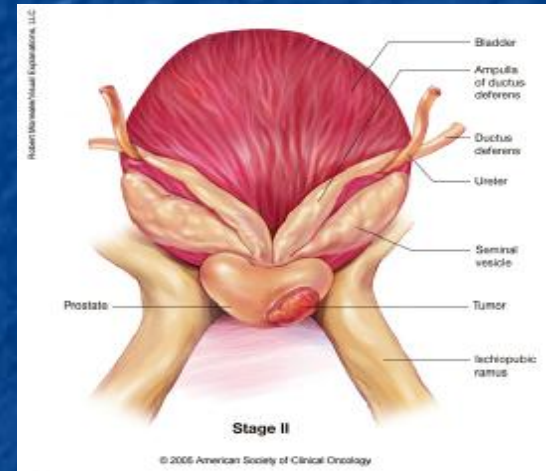
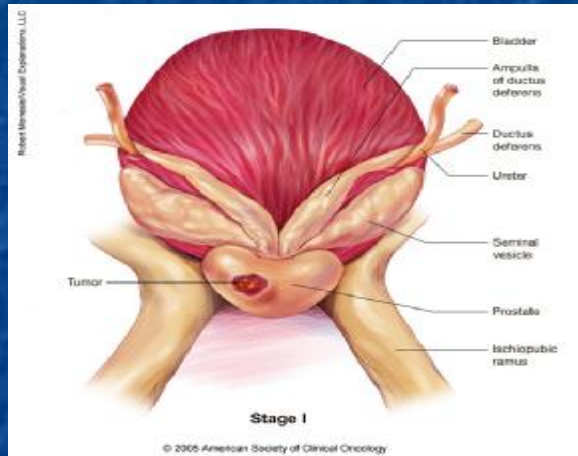
© MAYO 2004

# Gleason score



# CaP

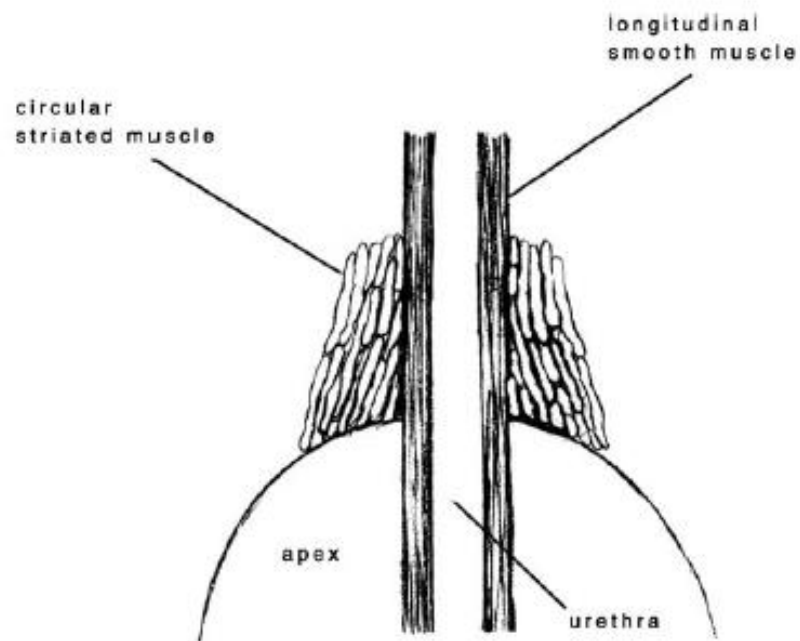
## stadi clinici



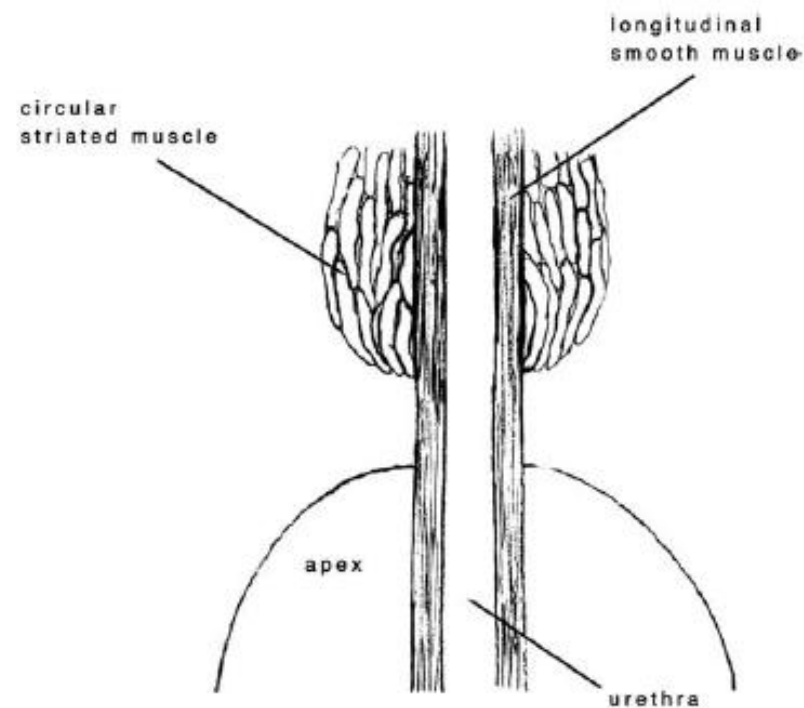
## Potential Intraoperative Factors That May Influence Risk of Post-Prostatectomy Incontinence

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1. Blood loss
2. Bladder neck contracture
3. Urethral stump length
4. Nerve sparing technique
5. Bladder neck sparing technique
6. Puboprostatic ligament sparing
7. Seminal vesicle dissection
8. Intususception of the bladder neck
9. Tubularization of bladder neck
10. Surgeon experience



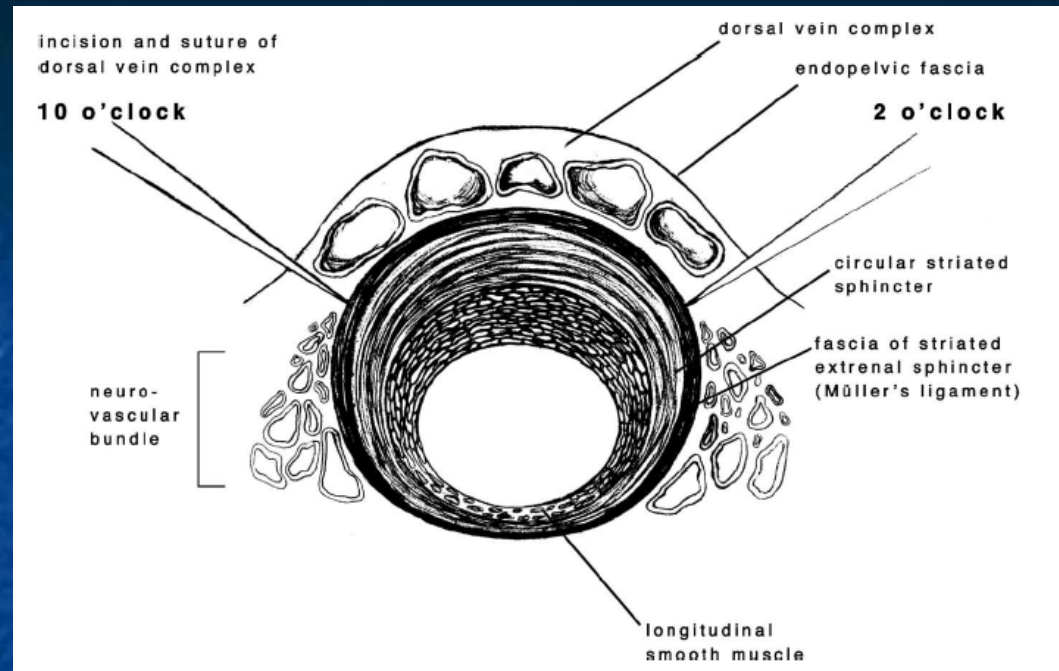
(a)



(b)

**Fig. 7 – (a and b) The striated external sphincter runs circular and its fibers are attached at the outside of the apex (Fig. 7a). Once they are pushed away (Fig. 7b) the longitudinal smooth muscle is visible that runs into the prostate. After this maneuver the distal tip of the apex is precisely visible and the incision of the urethra can be done exactly at the end of the apex, preserving the whole length of the membranous urethra.**

*"In the male, the inferior hypogastric plexus or **pelvic plexus** is responsible for the mechanisms of erection, ejaculation, and urinary continence <sup>1</sup>"*



*"The **external urethral sphincter complex** is found primarily distal to the prostate apex.*

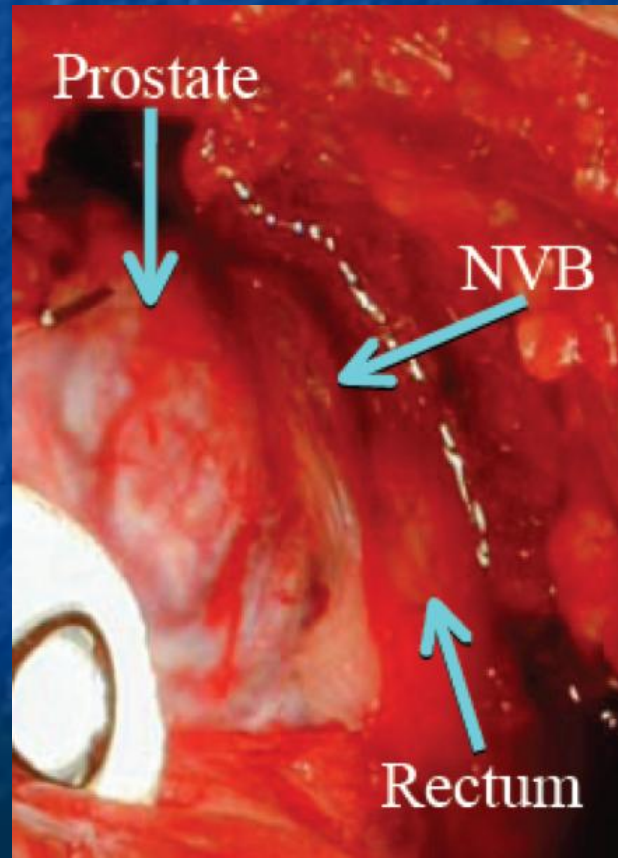
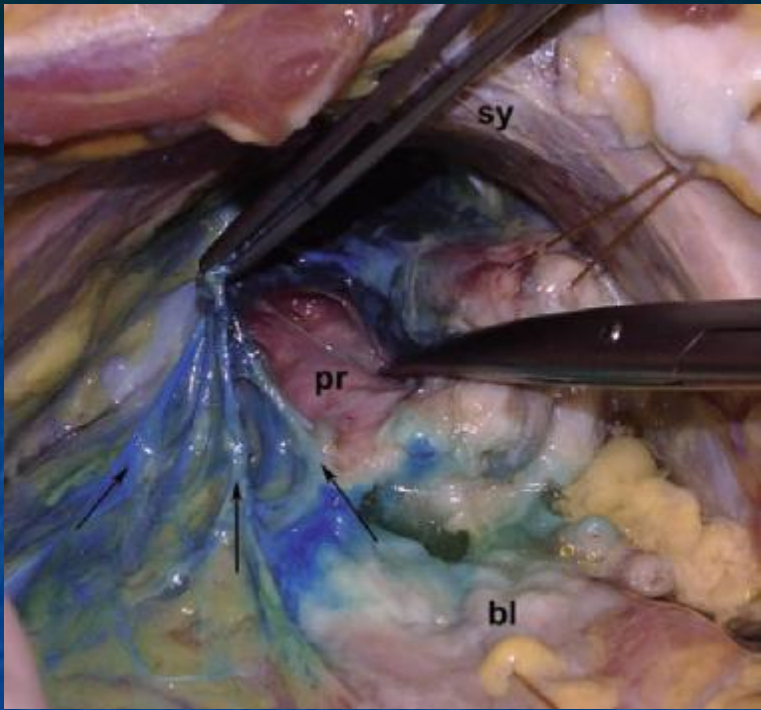
*It is in close relationship but independent from the puboperinealis muscle and therefore independent of the pelvic floor.*

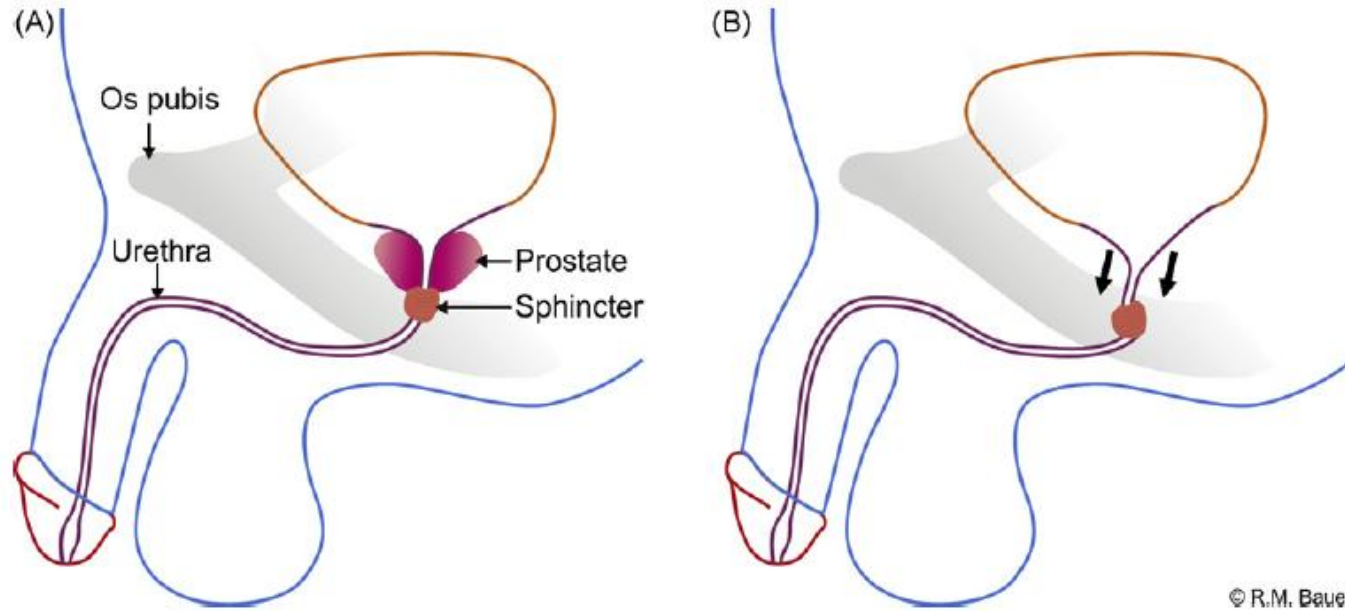
*It is innervated by autonomic branches of the pelvic plexus, which partly run with the NVB and partly derive from branches of the pudendal nerve.*

*Those fibers enter the urethral sphincter posterolaterally from both sides, mainly at the 5-o'clock and 7-o'clock positions and the 3-o'clock and 9-o'clock positions. <sup>2</sup>"*

1. Mauroy B. et al., Surg Radiol Anat 2003;25:6

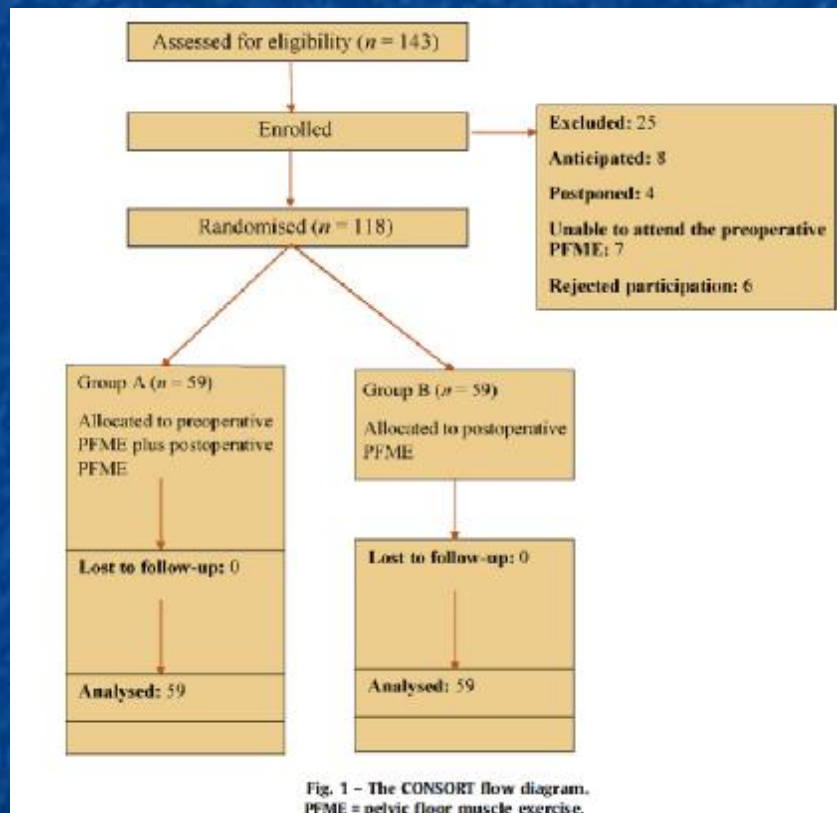
2. Walz J et al, Eur Urol 2010; 57: 179





**Fig. 1 - Disturbance of the male integral system following radical prostatectomy: (A) preoperative and (B) postoperative. Sphincteric laxity is due to radical prostatectomy.**

# Preoperative Pelvic Floor Muscle Exercise for Early Continence After Radical Prostatectomy: A Randomised Controlled Study



	Group A	Group B
No. of patients	59	59
Mean age, yr (range)	60.5 (48–68)	57.5 (46–67)*
BMI	<27	<27
PSA, mean ± SD	5.6 ± 3.9	5.8 ± 3.8
Clinical stage		
T1c	16	14
T2a	24	23
T2b	19	22
Gleason score		
<6	21	19
6–7	34	30
>7	4	10
Pathologic stage		
T2a	10	2
T2b	3	8
T2c	34	42
T3a	10	6
T3b	2	1
Mean ICS male SF questionnaire score		
At 1 mo	14.6 ± 5.7	18.3 ± 5.9*
At 3 mo	8.1 ± 7.6	12.2 ± 7.5*
<u>Continence recovery, %</u>		
At 1 mo	44.1%	20.3%*
At 3 mo	59.3%	37.3%*
Nerve-sparing procedure	59	59

# TAKE HOME MESSAGES

Prevenzione dell' INCONTINENZA, basata su:

- u Selezione dei pazienti e del caso clinico
- u Esecuzione dell' intervento nel rispetto dei landmarks anatomici e delle note di tecnica ( $\pm$  nerve sparing)
- u Riabilitazione preoperatoria del piano pelvi-perineale (*è studi clinici!*)