

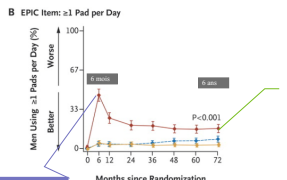


Incontinence management after prostatectomy

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Incontinence after prostatectomy



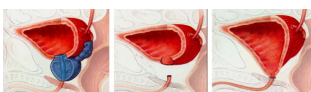
6 months after radical prostatectomy
46% of men used pads

6 years after the surgery
17% of men still used pads

Dhanraj et al. Patient-Reported Outcomes after Monitoring Surgery or Radiotherapy for Prostate Cancer. N Engl J Med 2016, Oct 13; 375 (15):1425-1437. 1643 patients.




Radical prostatectomy approach




Similar rate of incontinence at one year

- Open prostatectomy
- Laparoscopy
- Robot assisted laparoscopy



Thorsteindottir et al. Scand J Urol Neph 2011; 5:102-12



Urinary incontinence after prostatectomy pathophysiology


SUI

- Decrease in Urethral length (Presti, J Urol, 143, 1990)
- Removal of bladder neck
- External urethral sphincter damage (Presti, J Urol, 143, 1990)

UUI


- De novo overactive bladder
- Post radiation inflammation

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Risk factors of urinary incontinence after radical prostatectomy

- Age
- Co-morbidities
- Education et social status
- Obesity
- Bladder neck stricture
- Preoperative bladder or sphincter dysfunction
- Tumor stage




Leakage fears hugely alter quality of life



1. Bhatt P. Rapport sur le Adhès de l'Incontinence urinaire. Ministère de la Santé et des Solidarités, 2007.

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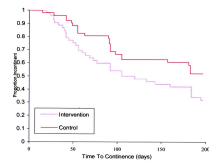
How to decrease the risk of urinary incontinence after radical prostatectomy

- Preoperative pelvic floor muscle training

• RCT : 62 PFMT / 63 without PFMT

• Primary outcome: cough incontinence test 6 months after surgery

• 22% in the PFMT group versus 51% in controls



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Burgio J Urol 2006



Self-PFMT is also useful

- Before the surgery after physiotherapist teaching
- Immediately after the surgery
- After the catheter removal in case of urinary incontinence

Sources :

1. Devonice M et al. Management of male urinary incontinence after radical prostatectomy. Prevention of incontinence and CTMI guidelines]. Comité des Troubles Mictionnels de l'Homme. Prog Urol 2008 Feb;18(2): 89-94.
2. Urinary incontinence in men. Adult Conservative Management. Consensus 12. 5th International Consultation on Incontinence. 5th EDITION 2013. Pages 1202-3.
3. F.C. Burkhard et al. EAU Guidelines on Urinary Incontinence in Adults. 2016. La rééducation des muscles du périnée accélère la récupération de la continence urinaire après une prostatectomie. Page 23.

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Programs are available on websites



Downloading clips from <https://pro.coloplast.fr/conveen-pro>

In case of urinary incontinence after surgery, most of the patients use pads

- But pads are
- Costly (1500€/year)
- Less suitable for severe IU (discomfort)

- Risks:
- Smelly
- Maceration
- Skin ulcers



R. Kordak, D. Leborgne, O. Dury, B. Mithouat, J. Weber. Etude comparative absorbants vs étuis péniens auto-adhésifs chez l'incontinent urinaire dans un service de neurologie. Congrès SIFUD, Mulhouse, 1999



Penile clamps



EAU guidelines:

« Do not use penile clamp »

Risk of ischemia of the penis, if bad supervision or too long port (> 2-3h consecutive)

Guidelines on urinary incontinence. European Association of Urology (EAU). 2013 Mar. p. 31. Do not use penile clamps for control of UI in men (recommendation grade A). www.guidelines.gov/content.aspx?id=67643

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Penile sheath

- Urinary drainage to a bag so no contact of urine with the skin; no smell

- Comfort, safety BUT must be well adapted
- No maceration, hygienic
- Discret



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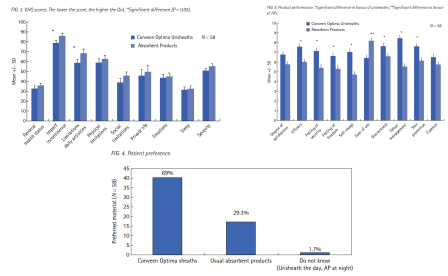


Penile sheaths: Demonstrated efficacy compared to pads



- > Cross-over RCT
- > 61 patients
- > Objectives :
To evaluate the impact on Quality of Life of the use of Conven® Optima + Conven bags, in men with moderate to severe urinary incontinence, using pads
- > Results
7 out of 10 men preferred to use penile sheaths if given the choice

1- Charlier-Kastler E, Ballanger P, Petit J, Fourmeier M, Bari S, Ragni-Ghazarian E, Ruffion A, Le Normand L, Cozza P. Randomized, crossover study evaluating patient preference and the impact on quality of life of absorbents vs absorbent products in incontinent men. BJU Int. 2011; 108(2):241-7.



Penile sheaths reduced the impact of incontinence and its impact on daily activities



Penile sheaths: an adapted solution recognized by the EAU



EAU guidelines

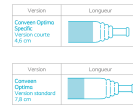
« The penile sheaths are to be advised in case of male urinary incontinence without associated retention»

1- Lucey M et al. Guidelines on Urinary Incontinence. European Association of Urology. Coloplast Group - Ostomy Care / Continence Care / Wound & Skin Care / Urinary Care



How to use a penile sheath

To determine the length and diameter adapted to the patient's morphology

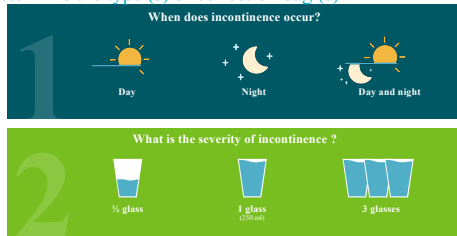


Neurostimulation without electrodes. Produits réglementés conformément à l'PMF pour les patients au 42. Do not pour les patients au régime général. Neuf types de produits sont disponibles. Coloplast, Coloplast Optima, Coloplast Optima, Coloplast Optima, Coloplast Optima. Les informations de sécurité et d'utilisation sont disponibles sur www.coloplast.com ou par téléphone au 02 40 00 00 00.



How to use a penile sheath

To determine the type (s) of collection bag (s)

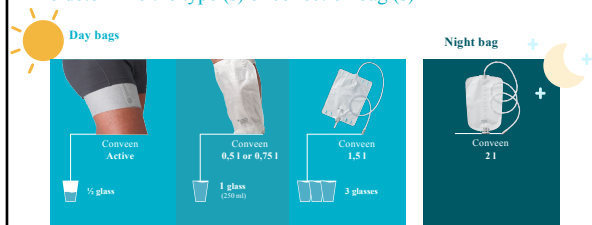


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Pelvic floor muscle training

- Usually started 1 month after the surgery
- Decreased time to recover continence
- But the continence rate is the same at one year in case of PFMT or not



Pelvic floor muscle training and penile sheath

- No studies addressed the impact of penile sheaths on the recovery of continence
- So no study has shown any negative impact

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Surgical treatments of post-prostatectomy urinary incontinence

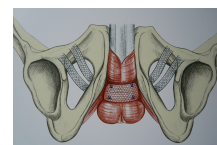
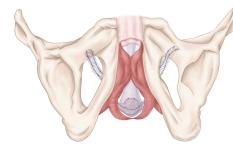
- When ? At least one year after the surgery
- Three devices:
 - Slings
 - ProAdjustable Continence Therapy
 - Artificial urinary sphincter



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Male slings



Male sling results

Author	Device	n	Year	FU (months)	Dry (%)	Improved (%)	Failure (%)
Rehder	Advance	156	2012	36	53	24	23
Sewerin	Atoms	38	2012	17	60	24	16
Grise	TOMS	103	2012	12	59	27	14
Leurth	NP	173	2012	24	49	35	16
Rehder	Advance	118	2010	12	73,7	16,9	9,3
Hübner	Argus	101	2010	25	79,2		NA
Gil	Advance	35	2010	9	60		NA
Cornu	Advance	136	2010	21	62	16	22
Bauer	Advance	137	2010	27	51,6	23,8	24,6
Sousa	Remeex	51	2007	32	64,7	19,6	15,7

Hübner, W. A., et al. (2010). *BJU Int.*
 Gil, B. C., et al. (2010). *J Urol* 183(1): 247-252.

Cornu, J. N., et al. (2010). *BJU Int.*
 Sousa-Escuderos, A., et al. (2007). *Eur Urol.*
 Rehder, P., et al. (2007). *Eur Urol* 52(3): 860-867.
 Bauer, R. M., et al. (2010). *BJU Int.*



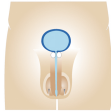
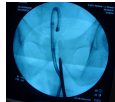
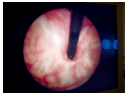
Male slings complications

	Rehder	Hübner	Cornu	Bauer	Bauer	Sousa
Device	Advance	Argus	Advance	Advance	Advance	Remeex
Population	118	101	136	137	230	51
Follow-up (months)	12	25	21	27	17	32
Infection	0	2,8	0	0,8	0,4	4
Urinary retention	5,1		1,4	15,1	21,3	NA
Perineal pain	19,5 (1,7)	14,9	10	0,8	0,4	NA
Urethral erosion	0	13	0	0,8	0,9	2



Pro Adjustable Continence therapy

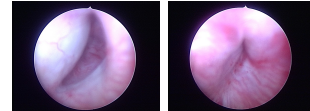
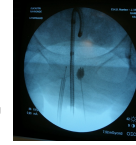
- Small balloons
- Under the bladder neck
- Transcutaneously
- Under radioscopic and endoscopic control



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Progressive filling of the balloons

- Between 0.5ml and 1 ml at the beginning
- After 6 weeks, 1 ml every 2 weeks
- Penile sheaths are helpful until reaching continence



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Results

Table 2. Main patient characteristics in series of surgical management of SUI with ProACT

References	No. Pts	No. RP/Other Prostatic Surgery	% Previous Adjuvant Radiotherapy	% Previous Anti-incontinence Procedure	% Previous Urethrovaginal	Mean Operative Time	% Urinary or Bladder Perforation
Häfner and Schäfer ³	117	110/7	2	28	19	14-56, Less than 25	12.8
Trigo Rocha et al ⁴	25	25/0	Not reported	Not reported	Not reported	26.4	8
Kocjanec et al ⁵	64	58/6	17	9.3	11	19	0
Gilling et al ⁶	37	30/7	10.8	Not reported	Not reported	25	3
Labret et al ⁷	62	55/7	19.3	6	16.1	37	9.8
Gregori et al ⁸	11	11/0	0	9	9	38-50	0
Martinez et al ⁹	29	29/0	0	7	7	Range 15-90	7
Gregori et al ¹⁰	79	78/0	20.2	Not reported	Not reported	23	2.5
Present series	128	103/25	25	Not reported	10	32	4

* Among the 44 patients treated with RP without adjuvant radiotherapy.

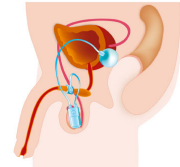
References	Adjustments	% Success	Improvement	% Erosion/Infection	% Migration	Surgery	Followup
Häfner and Schäfer ³	3	67	25	6.4	7	23.4	13
Trigo Rocha et al ⁴	4.6	69	13	0	12	17.3	22.4
Kocjanec et al ⁵	2	67	15	10.6	3	15.6	19.5
Gilling et al ⁶	3.3	62	Not reported	8	5	Not reported	51.5
Labret et al ⁷	Not reported	71	92*	8	1.6	6.4	6
Gregori et al ⁸	4.3	83.6	36.4	0	0	0	8
Martinez et al ⁹	3.7	44.3	—	7	—	41.3	41
Gregori et al ¹⁰	3.8	68.1	25.8	3.2	4.8	3.2	25
Present series	2.3	66	14.2	8.5	5.4	12.3	56.3

* Among the 44 patients treated with RP without adjuvant radiotherapy. Roupret M, Chartier-Kastler E, J Urol, 2010

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Artificial Urinary Sphincter

- The Gold standard
- Activation between 4 and 6 weeks
- After its placement
- Penile sheaths are still helpful after sphincter placement before turning it on



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Results

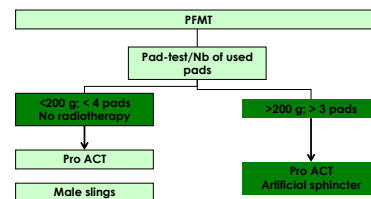
TABLE 3 Results of the artificial urinary sphincter in post-radical prostatectomy incontinence

Authors	N	Follow-Up (yrs)	0 or 1 pad/day (%)
Fischler & Herschorn (1996)	30	3	87
Goldwasser et al (1987)	42	1.2	82
Gousse et al (2001)	71	7.7	59
Haab et al (1997)	36	7.2	80
Hoy et al (2014)	48	24	88.2
Kim et al (2008)	124	6.8	82
Klijn et al (1998)	27	3	81
Lai et al (2007)	218	3.1	69
Lim et al (2014)	13	29.8	72.7
Madjar et al (2000)	71	7.7	59
Martinez-Salamanca et al (2015)	32	1	96
Martins & Boyd (1995)	28	2	85
Montague (1992)	66	3.2	75
Mottet et al (1998)	96	1	86
Perez & Webster (1992)	49	3.7	85
Trigo Rocha et al (2008)	40	4.5	90

Averbeck, NeuroUrology, 2019

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Algorithm of surgical treatment of urinary incontinence after prostatectomy



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Conclusion

- Urinary incontinence is common after radical prostatectomy
- Penile sheaths are associated with the best quality of life
- Treatments are available for each patient including:
 - PFMT
 - Male slings
 - ProACT balloons
 - Artificial Urinary Sphincter

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