



**Lumenis Pulse™ 120H Holmium Laser System
with MOSES™ 2.0 Technology**

All-in-one urology laser platform

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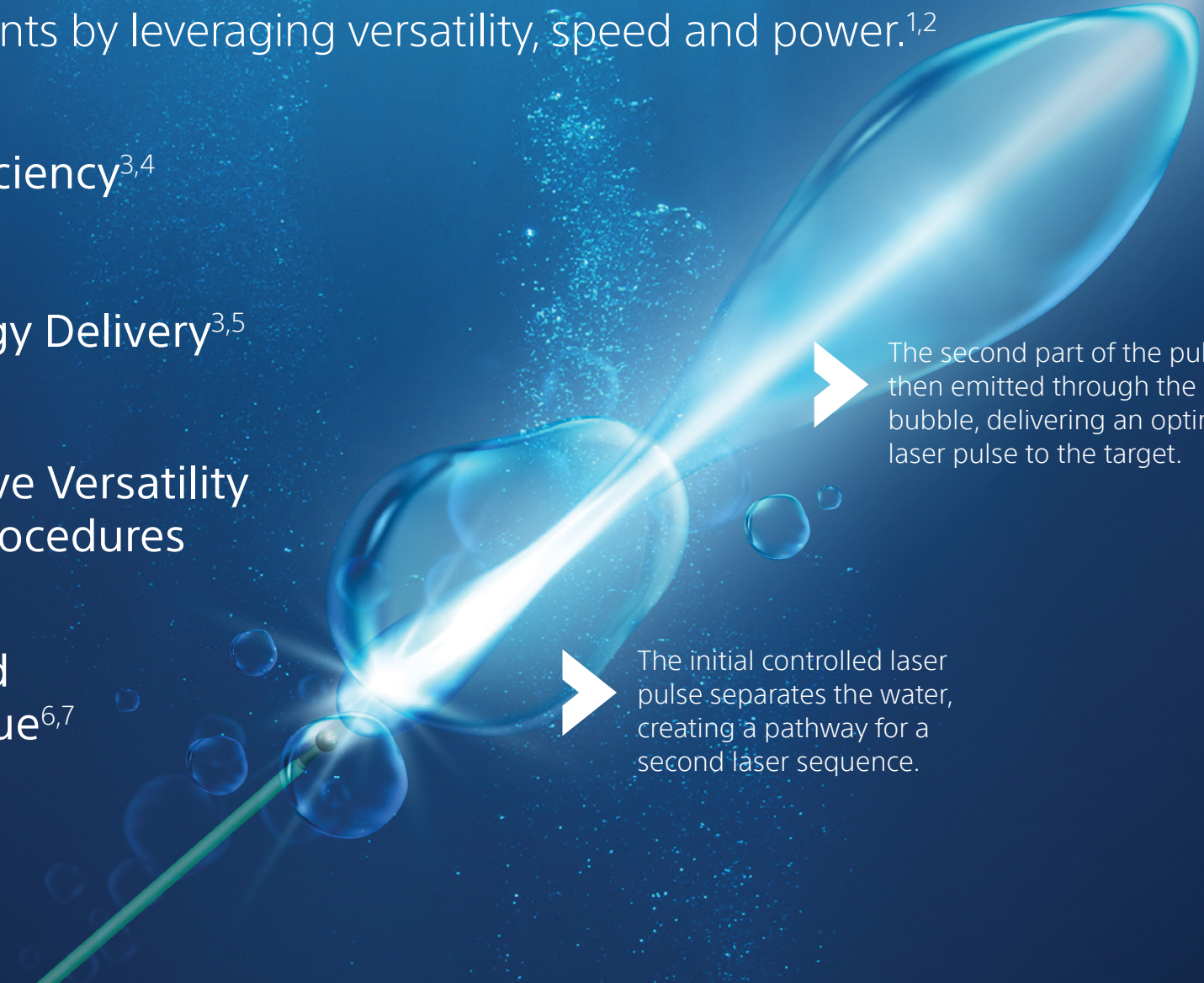
The MOSES 2.0 Technology advances the next generation of Lithotripsy and BPH treatments by leveraging versatility, speed and power.^{1,2}

▶ Increased Efficiency^{3,4}

▶ Optimal Energy Delivery^{3,5}

▶ Comprehensive Versatility for Urology Procedures

▶ Demonstrated Economic Value^{6,7}



The second part of the pulse is then emitted through the initial bubble, delivering an optimized laser pulse to the target.

The initial controlled laser pulse separates the water, creating a pathway for a second laser sequence.

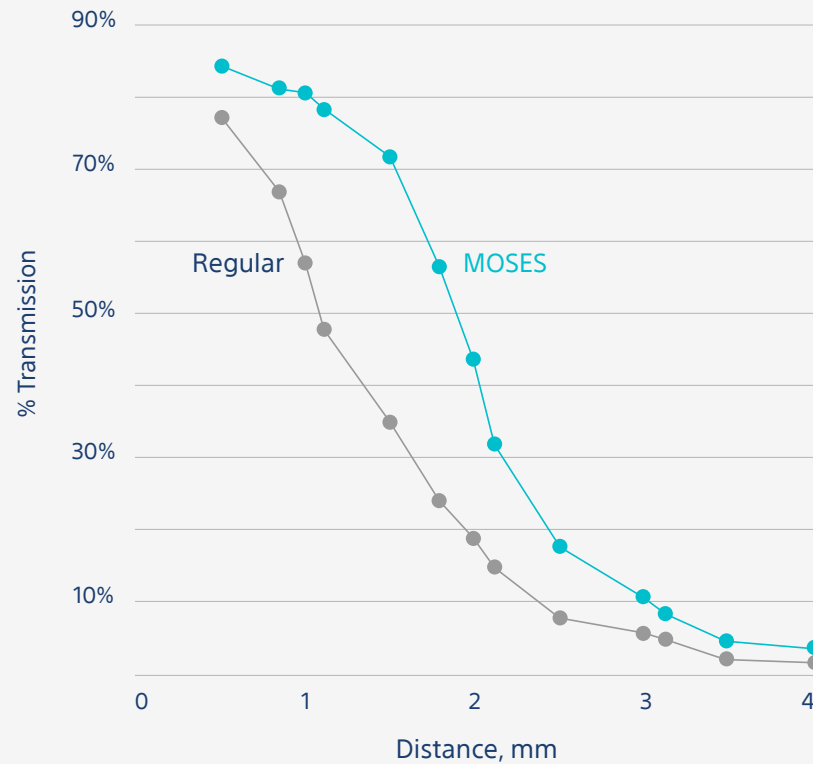
MOSES™ 2.0 Technology for Lithotripsy

Improving the gold standard for laser lithotripsy⁸

Be it a kidney, ureteral or bladder stone, soft or hard - MOSES 2.0 Technology provides you with the speed and power you need for both ureteroscopic and percutaneous stone treatments.^{*,3,9,10,11}



Efficient energy transmission for each working distance^{**12}



Bench test, a representative case^{*,12}
BSC recreated graph¹²

*Bench test results may not necessarily be indicative of clinical performance.

** Compared to standard holmium.

Lithotripsy Performance, Unleashed

Embrace best-in-class combination of the MOSES™ 2.0 Laser and fibers



20% Faster procedures

As shown in a randomized clinical trial, the MOSES 2.0 Technology reduces procedure time by 20%, making your treatments faster and more efficient.³

33% Improved fragmentation efficiency

MOSES 2.0 Technology high precision and optimized impact on the target stone makes the most of every shot, leading to a greater ablation rate compared to regular pulses.³

50% Reduced retropulsion

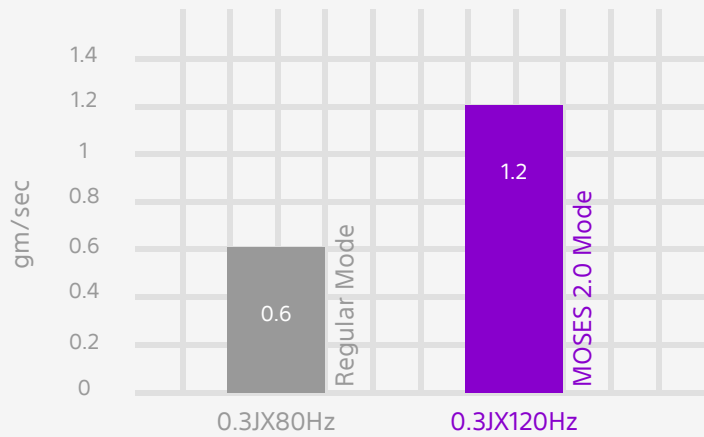
The MOSES 2.0 Technology has taken retropulsion reduction to the next level, decreasing retropulsion levels by 50%.³

120_{Hz} Comprehensive stone management

From ultra-speed stone dusting, through unprecedented pop-corning settings - MOSES 2.0 Technology offers the speed and energy you need - when you need it .

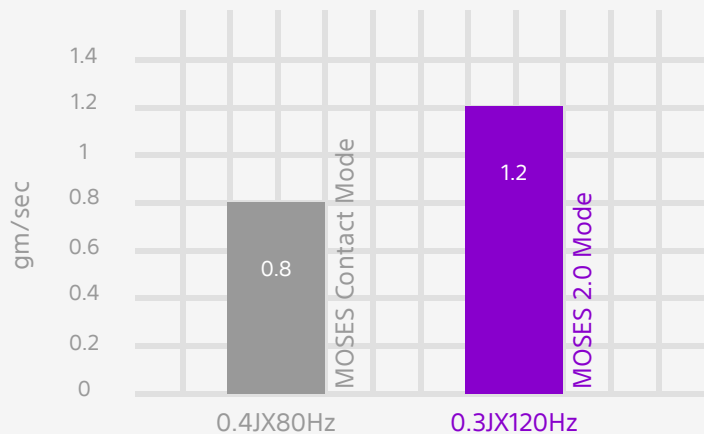
MOSES™ 2.0 Technology Increased Efficiencies

92% greater stone ablation at same energy



Bench test, a representative case⁹

42% greater stone ablation at similar power



Bench test, a representative case⁹

*Bench test results may not necessarily be indicative of clinical performance.

Focus on what matters in your percutaneous approach

Standard, Mini and UltraMini PCNL

MOSES 2.0 Technology provides smaller stone particles compared to standard holmium, allowing you to miniaturize your percutaneous access.^{*13-15}

12% REDUCTION IN TOTAL OPERATIVE TIME^{+,**,11}

33% IMPROVEMENT IN EFFICIENCY^{+,**,11}

+ Boston Scientific calculations for improvement in total operative time & treatment efficiency respectively: 85.9 vs 98.1 min, p=0.03 | 2.4 vs 1.8 mm³/s, p=0.03.

**MOSES Technology compared to standard holmium laser.



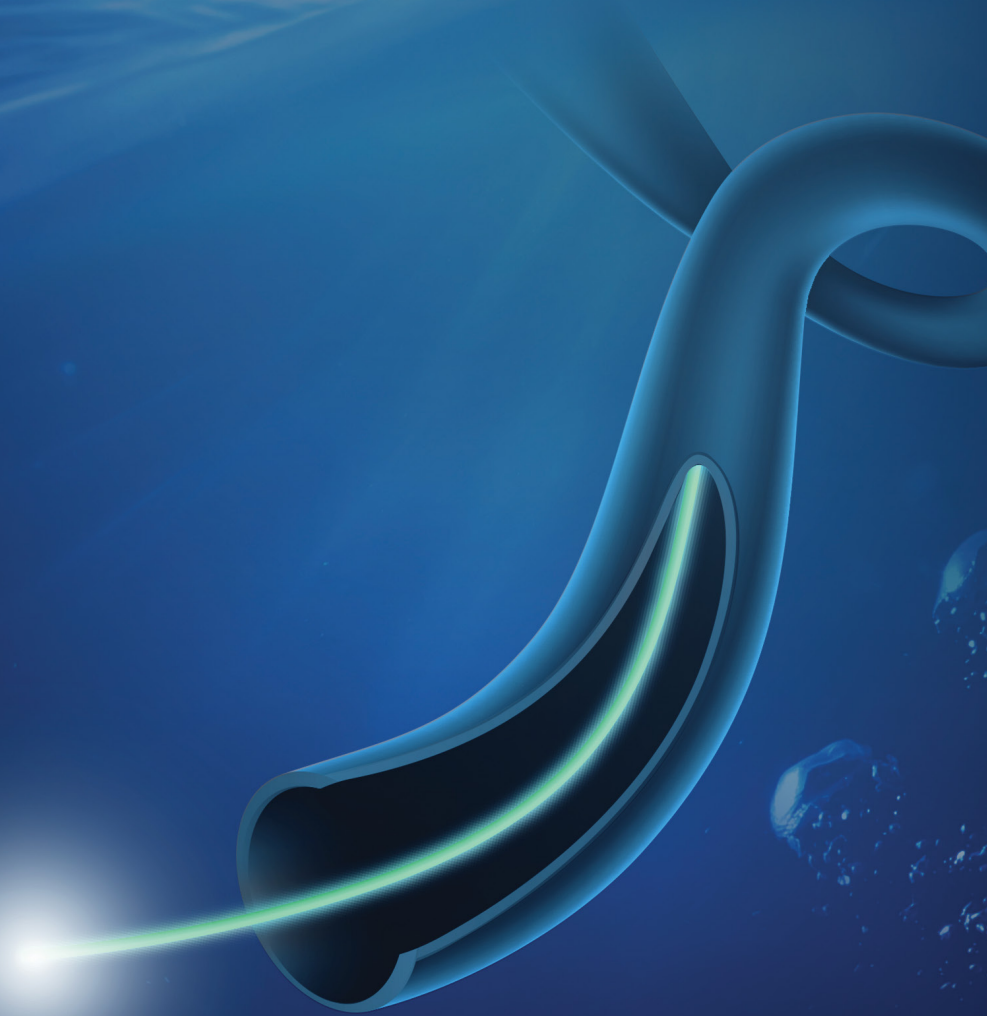
Leave no stone behind

MOSES™ 200 D/F/L flexible fiber is designed to minimize scope deflection loss, enabling you to reach difficult-to-access stone locations.



Smooth process, more confidence

Advanced ball-shaped tip enables a smooth initial insertion of the MOSES 200 D/F/L fiber through a flexible scope, designed to minimize potential scope damage.



HoLEP with MOSES™ 2.0 Technology:

Shifting paradigms

HoLEP provides excellent and durable clinical outcomes (PVR, Qmax, IPSS and QoL) with a reoperation rate as a result of recurrent obstruction from residual adenoma of only 0.7% at 10-year follow-up.¹⁶


Moreover, HoLEP demonstrates better outcomes with regards to hemoglobin loss, bladder irrigation, catheterization time, hospital stay and blood transfusion.^{*17}

The groundbreaking MOSES 2.0 Technology offers an efficient treatment for a wide range of patients including a broad range of prostate sizes and patients treated with anticoagulants.^{2,18}

*HoLEP vs. TURP

 **90+**%
Same-day
Discharge⁵

 **40**%
Faster
Hemostasis^{**5}

 **15**%
Faster
Enucleation^{**5}

**Compared to standard holmium.

MOSES™ 2.0 Technology for HoLEP

Versatility for different prostate sizes,
patients, techniques¹⁸⁻²⁰



90+% same-day discharge, 90% same-day catheter-free success rate*

With more efficient procedures and significantly reduced blood loss – MOSES 2.0 Technology for BPH results in over 90% of patients being discharged on the same day, and same-day catheter removal has been demonstrated with a 90% success rate.^{2,4,5}

*In select patients



Demonstrated economic value**

HoLEP with MOSES 2.0 Technology demonstrated \$721 lower cost of fiber and operating room time per case, compared to standard high power HoLEP, due to lower mean operative time.⁷

**Randomized study of 56 patients. Assumes MOSES fibers at \$119 premium to SlimLine™ fibers; cost of operating room time per minute assumed at \$37.





Faster procedures

With 15% faster enucleation and 40% faster hemostasis* – MOSES™ 2.0 Technology for BPH provides the ability to cut and cauterize, which can significantly reduce surgical time and overall operating room time.⁵



Faster learning curve

The MOSES 2.0 Technology allows the ability to learn the HoLEP technique, and build confidence after 20 procedures supervised by an experienced urologist.²¹

With faster hemostasis, MOSES 2.0 Technology for BPH can enable a tapered learning curve by providing better vision clarity and control during the procedure.^{*5,22}

*Compared to standard holmium.

"With Moses 2.0 the learner can focus on mastering HoLEP without distractions. Minimal fiber burnback and movement, and improved hemostasis decreasing surgery interruptions and allowing for more precise laser control."

Dr. Amy E. Krambeck
Professor of Urology, Northwestern Medical

A Powerful MOSES™ 2.0 Technology Solution for Vaporization²³



Higher vaporization rate and efficacy

Holmium laser vaporization of the prostate (HoLVP)* with MOSES 2.0 Technology demonstrates 95%** higher ablation efficiency compared to standard HoLVP, translating into time savings in the operating room.²³



Long-lasting results***

HoLVP demonstrates durable results of 83%. Qmax improvement and 47% decrease in AUA score.²⁴



Maintain hemostasis

Holmium laser provides precise and quick vaporization of tissue with the ability to maintain hemostasis without thermal injury to tissue.^{25,26}

*HoLAP (ablation) was recognized and used interchangeably with HoLVP (vaporization) in the AUA guidelines through 2011 and the EAU guidelines through 2014.^{27,28}

**BSC Calculations: 0.91 ± 0.54 g/min vs 1.77 ± 1.41 g/min, P= 0.01

***Study of 7 years, compared to baseline, N=34.

Technical Specifications

Lumenis Pulse™ 120H Holmium Laser with MOSES™ 2.0 Technology

MOSES 2.0 Technology	Lithotripsy & BPH
Maximum Optical Power	120 W
Wavelength	Holmium (2.1 µm)
Repetition Rate	5-120Hz
Pulse Energy	0.2-6 J
Integrated Suction	Yes
Case Saver Mode	Yes
Dual Pedal Footswitch	Yes
Pulse Width	Adjustable (Short, Medium, Long)

Fibers	Reusable and single-use fibers
Smart Identification System (SIS)	Yes
Aiming Beam	Green
Fiber Support Arm	Optional
Weight	260 kg
Dimensions [W / L / H]	47 x 116 x 105 cm
Voice Confirmation Indicating System's Operational Status	Yes
Electrical	200-240 VAC, <46 Amp, 50/60 Hz
Warranty	One year parts and labor

Risk Information:

The use of MOSES Technology in Urology, enabled in the Lumenis Pulse 120H system, is contraindicated for patients who are unable to receive endoscopic treatments or are intolerant to prolonged anesthesia, as well as for resection or excision of large vascularized organs. Holmium lasers are intended solely for use by physicians trained in the use of the Ho:YAG (2.1 µm) wavelength. Incorrect treatment settings can cause serious tissue damage. The laser should be used only on tissues that are fully observable. See the system user manual for a complete list of contraindications and risks.



References

1. Tracey J, Gagrin G, Morhardt D, et al. Ureteroscopic high-frequency dusting utilizing a 120-W holmium laser. *J Endourol.* 2018 Apr;32(4):290-5.
2. Agarwal DK, Rivera ME, Nottingham CU, et al. Catheter removal on the same day of holmium laser enucleation of the prostate: Outcomes of a pilot study. *Urology.* 2020 Dec;146:225-9.
3. Ibrahim A, Elhilali MM, Fahmy N, et al. Double-blinded prospective randomized clinical trial comparing regular and Moses modes of holmium laser lithotripsy. *J Endourol.* 2020 May;34(5):624-8.
4. Kavoussi NL, Nimmagadda N, Robles J, et al. MOSES technology for holmium laser enucleation of the prostate: A prospective double-blind randomized control trial. *J Urol.* 2021 Jul;206(1):104-8.
5. Large T, Nottingham C, Stoughton C, et al. Comparative study of holmium laser enucleation of the prostate with MOSES enabled pulsed laser modulation. *Urology.* 2020 Feb;136:196-201.
6. Lee M, Large T, Krambeck A. A cost comparison of holmium laser enucleation of the prostate with and without MOSES. *Urol Pract.* 2021 Nov;8(6):611-719.
7. Nimmagadda N, Kavoussi N, Robles J et al. MP01-03 HoLEP performed with MOSES technology generates cost savings in the operating room. *J Urol.* 2021 Sept 1;206(3)e1-e2.
8. Elhilali MM, Badaan S, Ibrahim A, et al. Use of the Moses technology to improve holmium laser lithotripsy outcomes: A preclinical study. *J Endourol.* 2017 Jun;31(6):598-604.
9. Data on file with Boston Scientific. Testing was performed on or behalf of BSC.
10. Wang M, Shao Q, Zhu X, et al. Efficiency and clinical outcomes of Moses technology with flexible ureteroscopic laser lithotripsy for treatment of renal calculus. *Urol Int.* 2021;105(7-8):587-593.
11. Dunne M, Drescher M, Abbott J, et al. MP18-04 Lumenis pulse MOSES technology improves efficiency of laser lithotripsy for patients undergoing mini-pcni. *J Urol.* 2021 Sept;206(3)e318.
12. Ibrahim A, Badaan S, Elhilali MM, et al. Moses technology in a stone simulator. *Can Urol Assoc J.* 2018 Apr;12(4):127-30.
13. Leotsakos I, Katafigiotis I, Lorber A, et al. Initial experience in combined ultra-mini percutaneous nephrolithotomy with the use of 120-W laser and the anti-retropulsion "Moses effect": the future of percutaneous nephrolithotomy? *Lasers Med Sci.* 2020 Feb 28;35:1961-66.
14. Black K, Aldoukhi AH, Teichman JMH, et al. Pulse modulation with Moses technology improves popcorn laser lithotripsy. *World J Urol.* 2020 Jun 6;39:1699-1705.
15. Aldoukhi AH, Roberts WW, Hall TL, et al. Holmium laser lithotripsy in the new stone age: Dust or bust? *Front Surg.* 2017 Sept 29;5:57.
16. Elmansy HM, Kotb A, Elhilali MM. Holmium laser enucleation of the prostate: long-term durability of clinical outcomes and complication rates during 10 years of followup. *J Urol.* 2011 Nov;186(5):1972-6.
17. Zhong J, Feng Z, Peng Y, et al. A systematic review and meta-analysis of efficacy and safety following holmium laser enucleation of prostate and transurethral resection of prostate for benign prostatic hyperplasia. *Urology.* 2019 Sep;131:14-20.
18. Lerner LB, McVary KT, Barry MJ, et al. Management of lower urinary tract symptoms attributed to benign prostatic hyperplasia: AUA Guideline 2021. *J Urol.* 2021 Oct;206:806-26.
19. Tamalunas A, Westhofen T, Schott M, et al. The clinical value of holmium laser enucleation of the prostate in octogenarians. *Low Urin Tract Symptoms.* 2021 Apr;13(2):279-85.
20. Agarwal DK, Large T, Stoughton CL, et al. Real-world experience of holmium laser enucleation of the prostate with patients on anticoagulation therapy. *J Endourol.* 2021 Jul;35(7):1036-41.
21. El-Hakim A, Elhilali MM. Holmium laser enucleation of the prostate can be taught: the first learning experience. *BJU Int.* 2002 Dec;90(9):863-9.
22. Nevo A, Faraj KS, Cheney SM, et al. Holmium laser enucleation of the prostate using MOSES 2.0 vs non-MOSES: a randomised controlled trial. *BJU Int.* 2021;127(5):553-9.
23. Whiles BB, Martin AJ, Brevik A, et al. Utilization of Moses modulated pulse mode results in improved efficiency in holmium: YAG laser ablation of the prostate. *Urology.* 2021 Mar;149:187-92.
24. Tan AH, Gilling PJ, Kennett KM, et al. Long-term results of high-power holmium laser vaporization (ablation) of the prostate. *BJU Int.* 2003 Nov;92(7):707-9.
25. Moore HG, Thomas D, Chughtai B. 10 - Holmium Laser Ablation of the Prostate. A Comprehensive Guide to the Prostate. *Academic Press.* 2018;67-71.
26. Elmansy HM, Elzayat E, Elhilali MM. Holmium laser ablation versus photoselective vaporization of prostate less than 60 cc: long-term results of a randomized trial. *J Urol.* 2010 Nov;184(5):2023-8.
27. McVary KT, Roehrborn CG, Avins AL, et al. Update on AUA Guidelines on the Management of Benign Prostatic Hyperplasia. *J Urol.* 2011 May;185:1793-1803.
28. Herrmann TR, Liatsikos EN, Nagele U, et al. European Association of Urology guidelines on laser technologies. *Eur Assoc Urol.* 2014.

The MOSES™ 2.0 Technology is inclusive of all MOSES™ 1.0 settings and features.

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Rx only.

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