

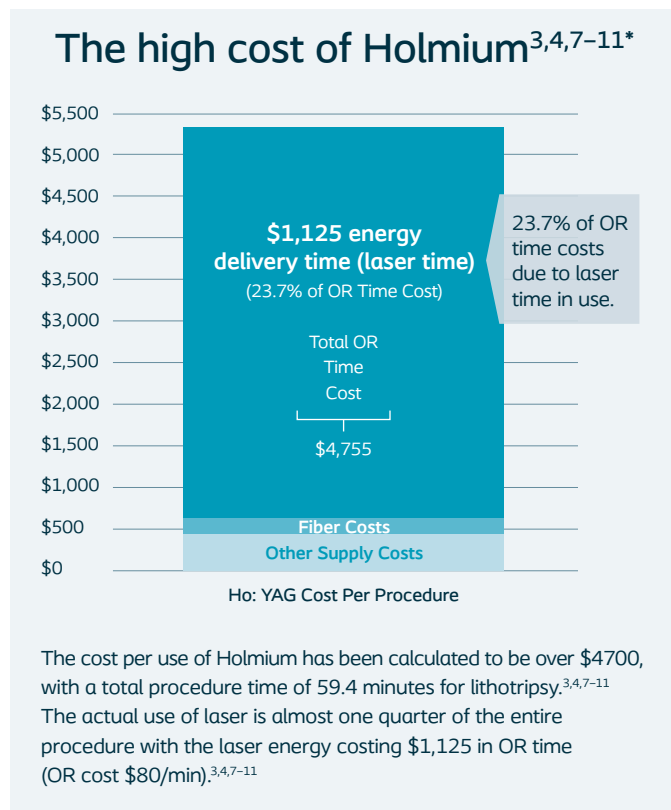
The next generation in lithotripsy

Increasing efficiency while cutting costs with the Thulium Fiber Laser developed for today's endourologists

With new tools and technologies rapidly transforming the clinical landscape in endourology, today's gold standard for laser lithotripsy is set to make way for the next generation of laser technology designed to be more efficient without the high cost of use. Below, we summarize key differences and opportunities for cost savings with the new Thulium Fiber Laser (TFL).

Holmium laser: the gold standard

As the current gold standard in laser lithotripsy, the Holmium laser revolutionized endourology since its breakthrough several years ago.¹ With its ability to fragment all types of stones with relatively low risk of stone migration, ability to work with thin and flexible fibers, and favorable safety profile, it is undoubtedly an attractive tool for clinicians looking for surgical versatility across soft tissue applications (incision) and stone ablation.^{2,3}



* All calculations are based on hospital prices, not ASC.

Still, this high-power device presents several limitations that may impact procedure time, energy efficiency, and thereby cost per use, in today's clinical practice:³

One drawback is the "snowstorm effect" that obscures the endoscopic view due to stone dust during laser emission.³ Besides prolonging operation and laser time, this effect also increases the risk of ureteral perforation and may leave residual untreated stones.³

Importantly, the high cost of energy delivery in Holmium lasers drive the cost of procedure time.⁵ Lower energy could be passed through the smallest fiber with Holmium lasers, leading to inefficiencies in energy delivery, operation time, and therefore limits the overall efficacy of the laser procedure.³ Additionally, the large Holmium laser unit makes both transportation and manipulation a challenge and often comes with high costs of generator repairs.² All in all, these limitations highlight the need for new solutions in laser lithotripsy – one that is currently being met by emerging TFL technology.

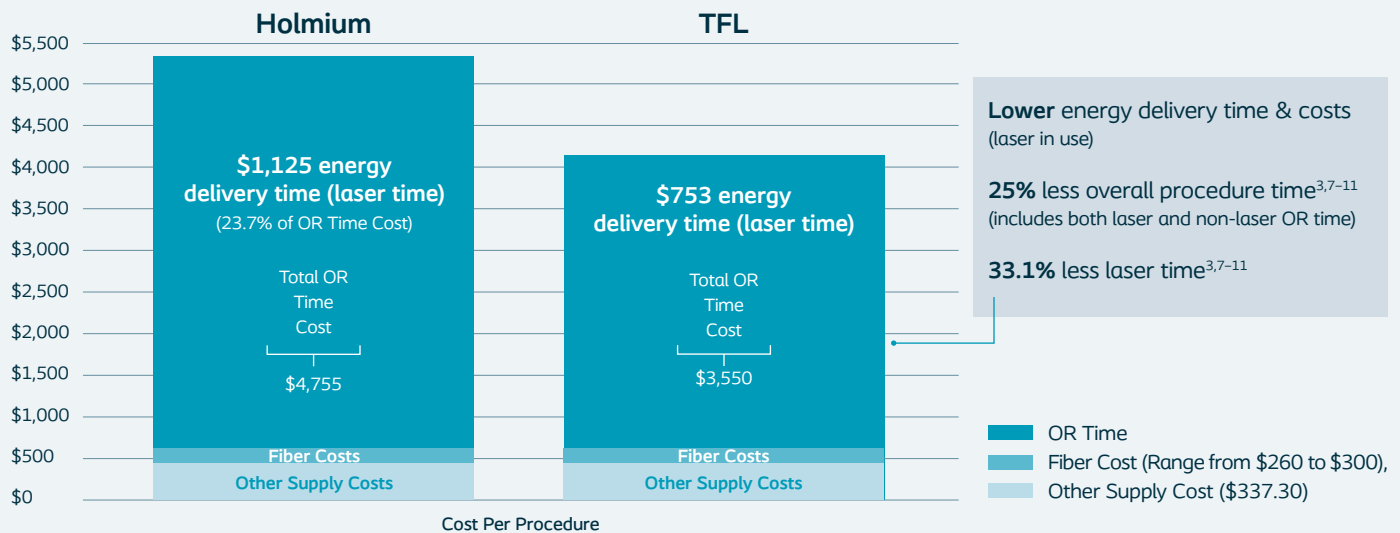
TFL: the next generation laser for lithotripsy

A systematic review published in an international, peer-reviewed journal described the TFL as a potential game-changer for kidney stone disease that has a promising role in the future.⁶ It uses a super pulse thulium fiber that operates at 1940 nm, a wavelength that is highly absorbed by water – positively impacting its speed and efficacy while also minimizing retropulsion and more efficiently ablating stones.²

TFL lasers are designed to be more efficient than Holmium lasers. They operate more efficiently and require less heat and power to maintain effectiveness and safety, while reducing energy delivery costs.^{2,5}

As a result, TFL requires 33.1% less laser time use and, consequently, lower energy delivery time per procedure.^{3,4,7-11} In terms of initial purchasing costs, TFL generators are less expensive than the Holmium laser, reducing overall costs per use even further.

TFL: the all-around cost-saver*



Thanks to improved efficiencies in energy delivery, overall procedure time^{3,7-11} and cost per use, TFL lasers have been shown to provide an average savings of almost \$1,200 per procedure in procedure cost per use, compared to Holmium lasers.^{3-5,7-11}

*All calculations are based on hospital prices, not ASC.

Comparing estimated cost per procedure

By improving efficiencies in energy delivery, the total procedure cost for TFL amounts to a little over \$4,185.24 in comparison to the total cost of Ho:YAG procedure \$5,369.92, providing an average savings of almost \$1,200 per procedure for TFL.^{3-5,7-11}

Some of the most important cost-saving opportunities offered by the TFL include:

- 25% less overall procedure time^{3,7-11}
- 33.1% less laser time^{3,7-11}

Putting patients first

As today's healthcare environment continues to demand more for less, the need for cost-efficiency in clinical practice is clear. TFL laser technology is a breakthrough in this regard, but its ability to make procedures more efficient means that clinicians gain back the time they need most – the time to put their patients first.

Reimbursement and Health Economics Disclaimer: This document contains healthcare economic information. This information is provided for your general reference only. It does not constitute legal advice or a recommendation regarding clinical practice. Reimbursement, coverage and payment policies can vary from one insurer and region to another and is subject to change without notice. The provider has the responsibility to determine medical necessity and to submit appropriate codes and charges for care provided. This information is provided for your general information only and is not intended to replace any advice you receive from your own internal or external insurance coverage consultants, reimbursement specialists or legal counsel.

Procedure efficiency*

The Hospital Outpatient Department (HOPD) National Medicare Average Reimbursement for reimbursement for Cystourethroscopy and Lithotripsy CPT 52356 for 2024: **\$4,935**

Estimated total cost of procedure (inclusive of time[†], stone removal products, fibers, and cost per unit use) for:

- Holmium laser: **\$5,369.92**^{3-5,7-11}
- TFL laser: **\$4,185.24**^{3-5,7-11}

TFL has been shown to provide average savings of almost \$1,200 per procedure in procedure cost per use.^{3-5,7-11}

[†] OR cost \$80/minute⁴

* All calculations are based on hospital prices, not ASC.

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"Depending on your product purchase price, procedure time efficiency, and your public/private reimbursement rates, a ureteroscopy in the hospital using a Holmium laser could lead to total costs exceeding reimbursement. Values used in this piece are based on average market pricing and average procedure duration from multiple papers."