

# Diffuser Fiber

Professional Medical Laser Fiber Solutions

Med fiber

# Product Overview

## Professional Intracavitary Photodynamic Therapy (PDT) Solution

Our medical-grade Diffuser Fiber provides uniform light diffusion and high transmission efficiency for intracavitary photodynamic therapy (PDT) and minimally invasive surgeries. It is designed for reliability in clinical environments and long service life, and can precisely adapt to complex treatment scenarios. It is a trusted core component for clinics and high-end medical equipment manufacturers.



### core value

The breakthrough uniform light diffusion technology ensures that there is no blind spot in the treatment area for energy coverage. The high transmission efficiency minimizes energy loss, thereby ensuring the accuracy and consistency of clinical treatment, and providing patients with a safer and more effective treatment experience.



### design philosophy

While maintaining your flexibility, it is made with high-strength biocompatible materials. It combines the flexibility of minimally invasive operations with the durability for long-term use, and can withstand repeated disinfection and bending. It perfectly adapts to the complex and variable clinical surgical environment.



### Target application

It is widely used in photodynamic therapy for intracavitary tumors and various minimally invasive laser medical procedures. Its precise light transmission capability makes it an indispensable key consumable in endoscopic surgeries and interventional treatments, helping doctors achieve minimally invasive and efficient treatment plans.

# Key Features: Durability & Flexibility



High tensile strength

$\geq 4.9 \text{ N}$

Optical fibers have an extremely strong resistance to physical tension .



Performance stability

90% +

After undergoing rigorous tensile tests, the light emission efficiency showed no significant decline .



Very small bending radius

200 d

Adapting to the narrow operating space with complex human anatomy , even with significant bending angles .



Exquisite material

石英光纤

Selecting high-quality medical-grade quartz materials, it combines excellent heat resistance performance and low-loss optical transmission .

## Clinical value and long-term benefits

The core features of Diffuser Fiber not only directly translate into the safety and stability of clinical treatment outcomes, but also fundamentally reduce the operational and maintenance costs of medical institutions by extending the instrument's service life and reducing downtime due to malfunctions. Whether it is dealing with complex surgical environments or frequent daily 诊疗 procedures, it can become a reliable technical partner for clinical doctors.

# Technical Specifications

Diameter of the diffusion tip

5mm / 10mm / 15mm / 20mm /  
25mm

Diameter of the diffusion tip

0.8 – 1.5mm

fiber diameter

400 – 600 $\mu$ m

Standard cable length

3m (Customizable)

Connector interface

FC / SMA905

Sterilization compatibility

Ethylene Oxide (ETO) sterilization

We offer a variety of precise specifications to meet different clinical surgical and treatment requirements. All parameters have been rigorously verified against medical standards. At the same time, we also provide customized services for special anatomical structures or equipment interfaces to ensure that the products are seamlessly compatible with your medical environment, providing reliable hardware support for efficient and safe diagnosis and treatment processes.

# Clinical Applications



## Intracavitary photodynamic therapy (PDT)

Uniform light activates photosensitizers to eliminate lesion cells while preserving healthy tissues. It minimizes surgical trauma for minimally invasive treatment of esophageal and tracheal disorders.



## Treatment of intracavitary tumors

Precise laser delivery targets intracavity tumors, inhibits growth and spares healthy tissues for minimally invasive treatment



## Application of Laser in Minimally Invasive Surgery

Works with various minimally invasive surgical systems. Stable laser delivery and even beam optimize cutting, ablation and hemostasis.

Whether it is the oncology department, the dermatology department or the interventional department, our Diffuser Fiber can maintain stable and reliable optical performance, ensuring the consistency and repeatability of clinical treatment. From complex intracavitary deep treatments to precise body surface repairs, it has become the key bridge connecting advanced laser technology with patient recovery, helping medical experts break through the limitations of traditional treatments and achieve more precise and safer minimally invasive treatment goals.

# Contact Us

To learn more about professional information and customized solutions for medical laser fibers, please visit our official platform.

## OFFICIAL WEBSITE

<https://new.medfiber.com/>

## PRODUCT PAGE

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