



WINNER

1995 R&D 100 Awards Winner **The Índigo-830**

Features:

We have developed the Índigo-830 laser system for treatment of benign prostatic hyperplasia (BPH), the noncancerous increase in the size of the prostate gland. Our system is unique because it is based on laser thermotherapy. The Índigo-830 combines an air-cooled, laser-energy source and a fiber-optic delivery system. The laser energy is delivered through a sterile optical fiber probe, which is fitted with a high-temperature-resistant, light-diffusing tip. The light-diffusing tip is guided by the urologist, using a cystoscope, through the urethra into the prostate tissue, where it evenly distributes a predetermined amount of infrared laser energy. Excess prostate cells are killed throughout the treatment area. Shrinkage of the prostate tissue then takes place over the following few weeks, and the prostatic urethra is preserved.

Applications:

In addition to the primary application for treatment of BPH, interstitial laser thermotherapy is a meaningful application in other areas where tumorous and benign growths can be accessed with minimal invasiveness. Regulatory hurdles prevent us from claiming different applications until clinical trials have verified the claims, but examples of potential applications are

- prostate cancer
- diskectomy (for spinal problems),
- lumpectomy (breast cancer, prostate cancer, liver cancer, fatty tumors),
- wart removal, and
- the selective destruction of other types of diseased tissue.

Benefits:

We believe that our interstitial laser thermotherapy may revolutionize the treatment of BPH. Ongoing expanded FDA trials are intended to demonstrate the benefits of

- greater patient comfort,
- less trauma,
- fewer complications,
- no blood transfusions (which eliminates the risk of hepatitis or AIDS infection),
- faster recovery and shorter convalescence, and
- lower patient cost.