

HIFU for Prostate Cancer

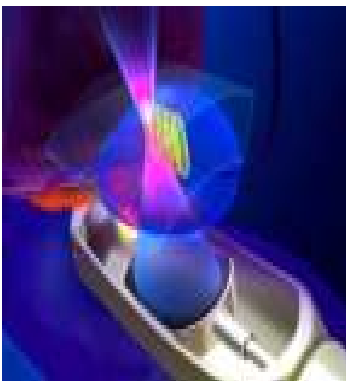
In spite of advances in early diagnosis, **an American man dies of prostate cancer every 15 minutes**. If detected early enough it can be cured but often at a high cost of debilitating side effects. Emerging treatments like HIFU may help change all that.

WRITTEN BY GEORGE M. SUAREZ, M.D.

One in 6 men in the U.S. will be diagnosed with prostate cancer in their lifetime, and most will have no symptoms at the time of diagnosis. PSA (prostate specific antigen) blood testing (available since the early 1990s) combined with examination of the prostate have improved early diagnosis rates. When discovered early enough, prostate cancer can be cured. The problem men face as they make a treatment decision is that the side-effects of the most common treatments (radical surgery and radiation) are significant and life altering. Many men feel as though they are between a rock and a hard place in making that decision, and that the treatment seems worse than the disease.

The development of a less invasive treatment option called **HIFU** (High-Intensity Focused Ultrasound) offers men with early prostate cancer an exciting and potentially safer alternative. Specifically this cancer treatment looks comparable to traditional therapies, but with significantly limited impact on sexual function and causing almost no urinary incontinence.

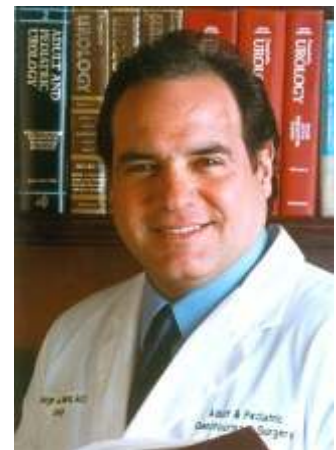
HIFU is a therapy that destroys the tissue with rapid heating; this heating is achieved by focusing sound waves to a very specific location or "target", and repeating the process throughout the organ to attempt to completely eradicate the tumor. Focused ultrasound waves raise the temperature at the tiny target area to over 90 degrees Celsius in a matter of a few seconds, while the tissue outside the target area is virtually unaffected. When performed for prostate cancer, a probe is inserted in the rectum under anesthesia, which both allows for precise focusing of energy to the target and simultaneous avoidance of areas of normal tissue, without making an incision of any kind in the body and without the use of ionizing radiation. A typical prostate treatment lasts several hours and is performed as an out-patient procedure. Patients experience little if any post-operative pain, but may have trouble urinating for up to a few weeks, so a small tube is placed in the lower abdomen to drain the urine for that time period.



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George M. Suarez,

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HIFU was developed in the 1950's here in the U.S., and has been used for treatment of various tumors. It has already been FDA approved for use in uterine fibroids, and studies are underway that will be presented for FDA approval for treatment of prostate cancer soon. Meanwhile, HIFU for prostate cancer has been performed on nearly 10,000 men world wide and has been extensively studied in Japan and in Europe; studies from other countries suggest this treatment is comparably as effective as other treatment options but with reports of fewer urinary and sexual side effects, making this treatment option appealing to physicians and patients alike.

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