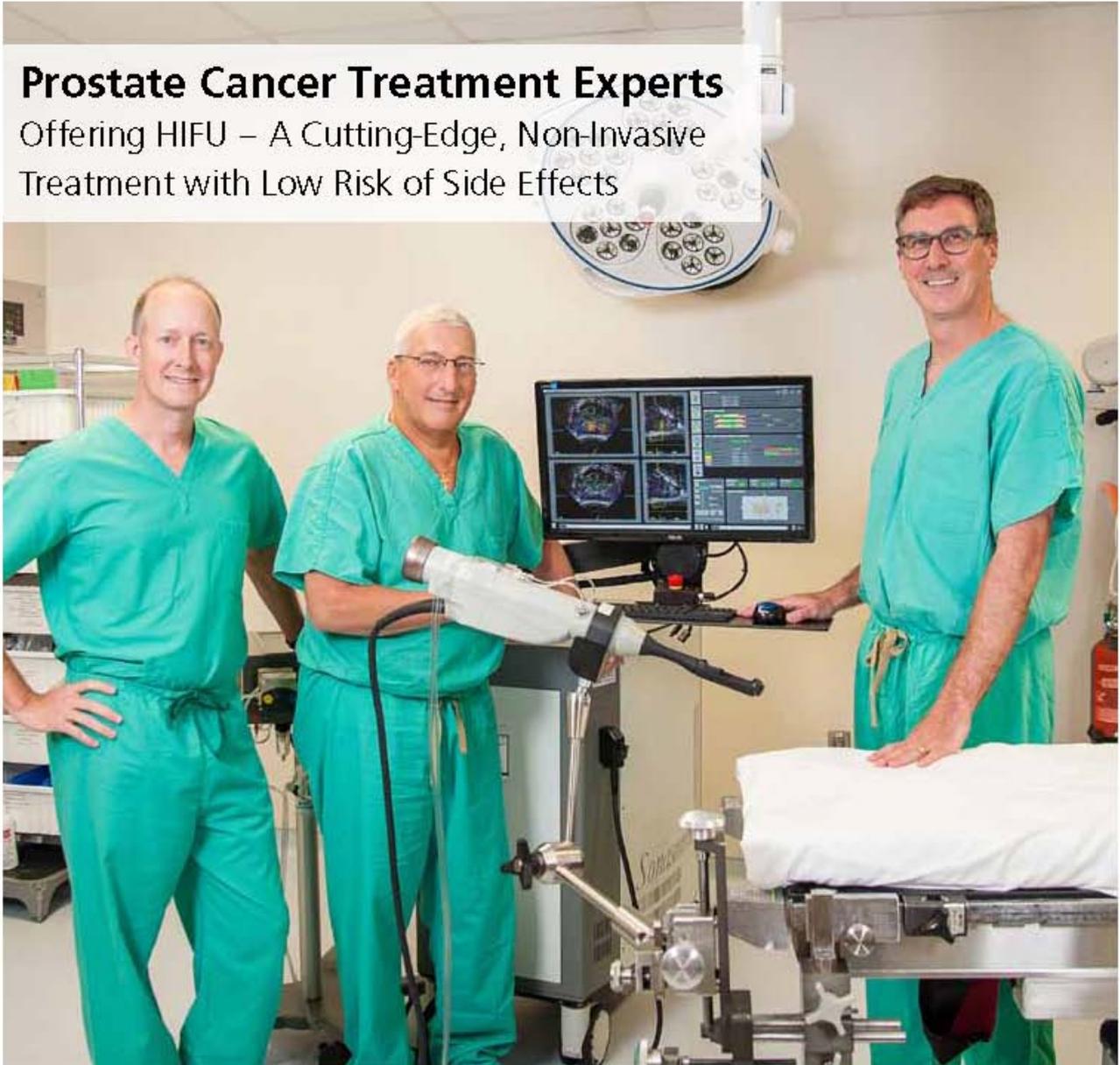


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Prostate Cancer Treatment Experts Offering HIFU – A Cutting-Edge, Non-Invasive Treatment with Low Risk of Side Effects



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Offering HIFU – A Cutting-Edge, Non-Invasive Treatment with Low Risk of Side Effects

While prostate cancer is a fairly common disease among men in the US, with about 1 in 9 men being diagnosed in his lifetime, it is also one that usually is very treatable, especially if diagnosed early.

Expert physicians at Associated Urologists of North Carolina have partnered with HIFU Prostate Services to offer their prostate cancer patients a cutting-edge, non-invasive prostate cancer treatment called HIFU, or high intensity focused ultrasound.

What is HIFU for Prostate Cancer?

HIFU is a one-time, out-patient procedure that uses ultrasound energy to heat and destroy tissue in the prostate. It is radiation-free, and studies show that the risk of side effects such as erectile dysfunction and urinary incontinence are significantly lower with HIFU than with surgery (radical prostatectomy) or radiation.

The urologists offering HIFU in the Triangle area include Frank Tortora, MD; Dan Khera-McRackan, MD; Mark Jalkut,

MD; and William Kizer, MD. While HIFU was approved for prostate tissue ablation in the US in October 2015, many of these physicians have been working with HIFU patients outside the US for more than 10 years.

“While still considered ‘new’ by some urologists, I have been working with HIFU patients since 2008 and have been very impressed by the outcomes and experiences of my patients,” said Dr. Tortora. “As I see it, there are two major advantages to the HIFU treatment for prostate cancer. First, there is minimal change to a person’s lifestyle. For example, there is very little erectile dysfunction and no urinary incontinence. Secondly, it leaves all options on the table if recurrence should occur.”



Dr. Frank Tortora uses the Sonablate software to image, target and treat prostate cancer as well as to monitor changes in the prostate tissue in real time.

How Does HIFU Work?

HIFU is delivered using a medical device called the Sonablate, which is made up of a computer console, a transrectal probe and chilling unit. The probe contains transducers that emit ultrasound energy, providing an image of the prostate, but can also be focused to a central point where the temperature is raised rapidly which causes cell destruction. This works the same way as sunlight that is focused to burn a hole in a leaf.

During HIFU, the Sonablate software allows doctors to get a real-time image of the prostate and plan exactly where they want

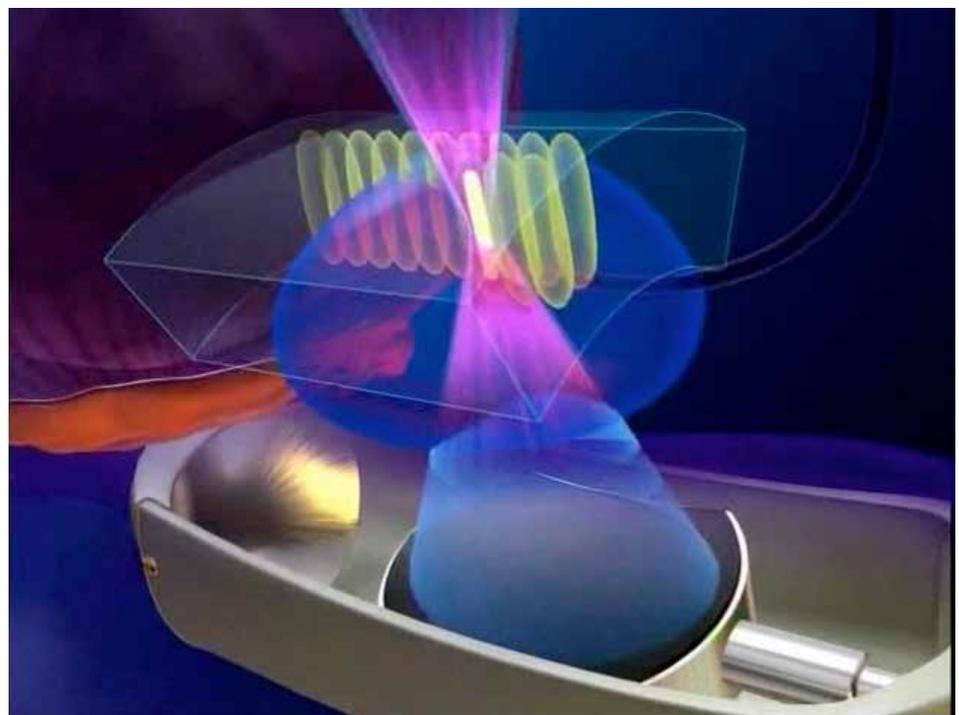
Transducers in the probe of the Sonablate deliver ultrasound energy to the prostate while leaving healthy tissue around the prostate unharmed.

to deliver HIFU energy, thus destroying the targeted tissue. The doctor also receives immediate feedback to confirm the targeted prostatic tissue has been eliminated.

“HIFU is a non-invasive treatment that destroys cancer cells in the prostate with thermal energy. It is an ideal treatment for men with prostate cancer detected early and likely to be confined to the prostate, said Dr. Jalkut. “The Sonablate technology allows us to fine-tune each man’s procedure such that the treatment plan can be customized and personalized for each man considering the size and shape of his prostate along with the extent of his cancer and the level of risk each cancer carries. It allows for real-time monitoring of the efficacy of treatment. Because there is less collateral damage to the tissue around the prostate, HIFU with Sonablate gives us the ability to cure prostate cancer in men with lower rates of impotence and without any significant risk of incontinence. Furthermore, it preserves future treatment options should they become necessary.”

Fewer Side Effects

The Sonablate has special features that allow physicians to visualize the exact location of the nerves near the prostate that are responsible for helping maintain sexual function.





The Sonablate HIFU System includes a console, monitor, transrectal probe and chilling unit.

Since doctors have the ability to see these nerve bundles, they can avoid them and therefore, men have lower risk of erectile dysfunction.

Additionally, studies have shown that men who have HIFU for prostate cancer are less likely to have issues with urinary incontinence, or the ability to control their bladders.

“HIFU is extremely well tolerated and compared to other treatments and has very minimal side effects. For a patient to qualify, the cancer would have to be a low- or moderate-risk tumor that is completely localized to the prostate, said Dr. Khera-McRackan. “Often we can treat only the part of the prostate that is cancerous and spare the rest; this is called focal HIFU. In that case, there are even fewer side effects.”

Recovery After HIFU

HIFU is an outpatient procedure which typically last one to three hours depending on the size of the prostate. After a brief recovery at the treatment center, patients return home to recover more comfortably and often return to their normal lifestyle after a few days.

“Patients return home the same day of the procedure and are able to go out to eat for dinner that evening. HIFU really isn’t a huge disruption to their normal life,” said Dr. Kizer.

“There really is minimal change to a patient’s lifestyle with HIFU. This is drastically different than other more traditional options for prostate cancer, such as a radical prostatectomy which will require recovery overnight in a hospital and a few weeks before patients can return to their normal lifestyle.”

Additionally, unlike with radiation and surgery, if for some reason there is a recurrence of prostate cancer, HIFU does not exclude patients from having any other treatments. This also means that, while not common, HIFU may be repeated if necessary. If a man chooses to have HIFU, he is not limiting himself down the road to pursue other treatment options.

Who Qualifies for HIFU?

While only a physician can determine if a patient qualifies for HIFU or not, typically men with

a prostate gland of less than 40 grams with localized prostate cancer (tumor has not spread outside of the prostate gland) may be candidates for HIFU. The other information that physicians usually look at to determine if a patient qualifies for HIFU is a PSA of 20 or less and a Gleason score of 7 or less.

“We offer patients all types of treatments – from surgery and radiation to HIFU – Not all prostate cancer is lethal, but not all prostate cancer is slow growing either. The treatment is extremely individual depending on the person and the type and extent of disease he has,” said Dr. Tortora.

Anyone interested in HIFU for localized prostate cancer should speak with a doctor about his specific diagnosis and whether or not it would be a good treatment option in his case.

Effectiveness of HIFU

Studies show that HIFU has rates of efficacy similar to other treatments for prostate cancer but with less risk for side effects such as incontinence and erectile dysfunction.

“HIFU is a great option in specific circumstances; it has a lower risk of side effects and, for the right patients, can be just as effective as those ‘gold standard’ treatments,” said Dr. McRackan.

Focal HIFU

Focal therapy, often referred to as a “male lumpectomy,” is a general term for a variety of non-invasive techniques for destroying small tumors inside the prostate while leaving the gland intact and sparing most of its normal tissue.

Advanced imaging techniques allow doctors to pinpoint exactly where in the prostate the tumor is located. By utilizing multiparametric MRI and UroNav fusion biopsies, doctors are able to target the tumor within the prostate, leaving healthy tissue unharmed.

Focal therapy with Sonablate HIFU technology creates a small, precise lesion. This targets the tumor within the prostate, leaving the surrounding tissue unharmed. Experienced physicians use software to merge MRI and real-time images of the prostate to locate



Dr. William Kizer and Dr. Mark Jalkut review a Sonablate HIFU prostate cancer treatment on the monitor.

and treat only the tumor.

A paper was published from a study in the United Kingdom on 625 men with prostate cancer treated with Focal HIFU in the prestigious journal *European Urology*^{*}, reporting outstanding five-year results in terms of disease control and side effect profile.

The study shows that after 1-2 years, 97% of men were continent, and after 2-3 years 98% of men had no issues with incontinence. The study also indicated that erections sufficient for penetration were maintained in 85% of men who were able to achieve an erection sufficient for penetration prior to focal HIFU. Overall survival rate after focal HIFU was reported at 99%.

Where is HIFU Available?

HIFU is currently available at several different locations in the greater Raleigh-Durham area including Rex Surgery Center, WakeMed Cary Hospital and North Carolina Specialty Hospital.

Anyone interested in learning more about HIFU or speaking with a physician should contact HIFU Prostate Services at 1-877-884-HIFU (4438.)

^{*}A Multicentre Study of five-year Outcomes Following Focal Therapy in Treating Clinically Significant Non-Metastatic Prostate Cancer. *European Urology*. June 27, 2018.