

# SeedNet™

## Cryotherapy chills cancer cells out

There is a new, advanced procedure for the treatment of renal and prostate cancer," informs Alan K. Miller, MD, FACS, of Manatee Urology, "and Manatee Memorial Hospital is leading the way in making this important new procedure available to patients in Manatee County."

The procedure is SeedNet™ Cryotherapy, a minimally invasive treatment developed by Oncura™. It provides accurate, efficient and *controlled* deactivation of renal and prostate cancer cells.

For both renal and prostate procedures, the learning curve for SeedNet Cryotherapy is short. It was specifically designed for use by urologists and radiation oncologists, who have long experience in the application of brachytherapy (radioactive seed implants).

### History lesson

Dr. Miller explains that cryotherapy — the application of extremely cold temperatures to deactivate diseased cells — dates back to the mid-1800s, when English surgeon James Arnott used cold therapy to treat uterine and cervical cancers.

"Dr. Arnott could lower the temperature of cancerous lesions only to negative twenty-four degrees Celsius," informs Dr. Miller. "That wasn't cold enough to effect a cure, but it did help decrease tumor size, reduce pain and minimize side effects."

It wasn't until the 1940s and 1950s that researchers were able to use liquid nitrogen to reach temperatures low enough to effectively deactivate cancer cells, but there was no way to deliver these low temperatures to any but surface lesions.

*Cryoprobes* were developed in the 1960s to reach interior lesions, but could not avoid damage to nearby healthy tissue.

In the 1990s, scientists discovered that two gases — argon and helium — could be used in concert to accurately place and direct extremely cold temperatures. With this advance, researchers developed new instrumentation and guidance techniques that have made modern cryotherapy an effective option in treating cancerous tumors.

### Treating prostate cancer

"Cryotherapy for prostate cancer is indicated for patients who have aggressive high grade tumors," describes Dr. Miller.

"It is delivered percutaneously [through the skin], using delicate 17-gauge CryoNeedles, to the entire prostate, with ultrasound guidance. There are no incisions, no open surgery. Patients can receive this treatment and return to their normal activities shortly after an overnight hospital stay.

"There is a significant need for this minimally invasive procedure in the Manatee County area," points out Dr. Miller. "Prostate cancer is a disease of men in their sixties, seventies and eighties, and that is a large part of our population.

"When we treat an older population, we find a larger proportion of patients with multiple health factors, and some of these conditions will make these patients poor candidates for surgery.

"Those on blood-thinning medications would have to interrupt their medication regimens for a surgical procedure, for instance, but with cryotherapy, their

medications can continue essentially uninterrupted.

"And since cryotherapy poses such negligible risks for blood loss, patients with religious proscriptions against blood transfusions can confidently take advantage of this treatment, too.

"Finally, what makes this treatment so attractive to me," says Dr. Miller, "is that it limits even the risks associated with surgery, while providing effective palliation and care that is comparable to that achieved with radiation therapy."

### Cryo for kidneys

Cryosurgery is indicated for small renal tumors no more than four centimeters in length, provided the tumor has developed on the *outside* of the kidney.

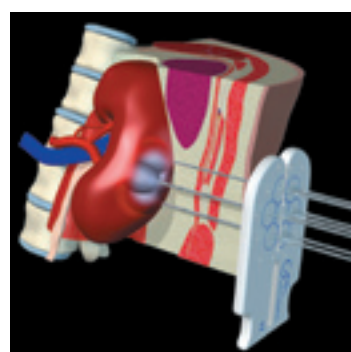
"The therapy is not delivered to the entire kidney,"

explains Dr. Miller, "but only to the cancerous lesion. The lesion is visualized with a laparoscope, allowing us to precisely apply the cryotherapy and render the lesion necrotic."

SeedNet Cryotherapy allows several approaches in the treatment of renal cancer.

It allows multiple lesions to be addressed with minimal damage to healthy kidney tissue.

When used in laparoscopic procedures, it significantly reduces morbidity and recovery times.



**COLD COMFORTS.** Delicate, precisely positioned needles deliver freezing temperatures to cancerous lesions, deactivating cancer cells in kidney (above) and prostate tissue (top).

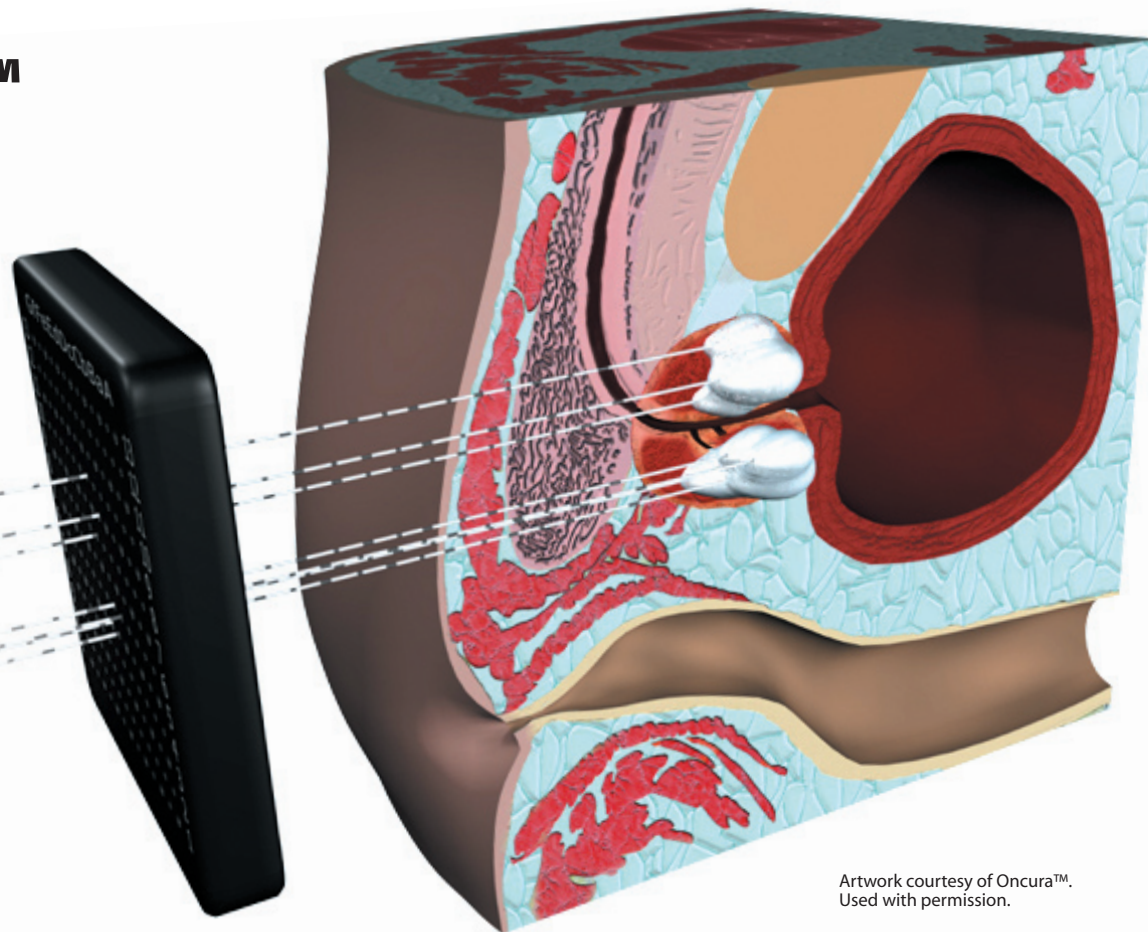
The proprietary 17-gauge CryoNeedles complement the growing trend toward ultrasound-guided percutaneous surgeries.

"Manatee Memorial Hospital has made a significant commitment in bringing this leading-edge procedure to the Manatee County area," observes Dr. Miller, "and this means a higher standard of care for our patients."

FHCN—Billie S. Noakes

### Healthy partnership

You ... and Manatee Memorial Hospital. The hospital offers a number of programs to help educate the public about maintaining or regaining health. For information about health issues, please visit [www.manateememorial.com](http://www.manateememorial.com) or call the Marketing Department at (941) 745-7204. Manatee Memorial Hospital is located at 206 Second Street East in Bradenton.



Artwork courtesy of Oncura™. Used with permission.

## Benefits of SeedNet™ Cryotherapy

Viable and effective treatment option for patients unwilling or unable to undergo surgery or radiation therapy

Minimally invasive: uses ultra-thin CryoNeedles no larger than biopsy needles

Easy to perform: procedure is usually completed in under two hours

Brief overnight hospital stay, unlike surgery that requires several days' hospitalization

Quick recovery time: mobility the same day as the procedure, and a return to routine activities within a few days

Repeatable in case of cancer recurrence

Minimal pain and discomfort: causes only minimal bruising and swelling, in contrast to major trauma associated with surgery

Source: [www.oncure.com/prostate-cryotherapy.html](http://www.oncure.com/prostate-cryotherapy.html)



Alan K. Miller, MD, is a Diplomate of the American Board of Urology and a Fellow of the American College of Surgeons. He completed his undergraduate studies at Haverford College, Haverford, PA, and earned his Medical Degree from the University of Pittsburgh School of Medicine, Pittsburgh, PA. Dr. Miller completed his Internship in General Surgery at the National Naval Medical Center, Bethesda, MD, and served his Urology Residency at the Naval Medical Center in San Diego, CA. Dr. Miller is a member of the American Urologic Association, American College of Surgeons, and the Society of Government Service Urologists.