

# Study shows notable outcomes with cryoablation and prostate cancer

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Micrograph showing prostatic acinar adenocarcinoma (the most common form of prostate cancer) Credit: Wikipedia, [CC BY-SA 3.0](https://creativecommons.org/licenses/by-sa/3.0/)

A less-invasive treatment technique called hemi-gland cryoablation (HGCryo)—destroying the areas of the prostate where cancers are located by freezing them—provides a high rate of effective prostate cancer control, according to a new study published in *The Journal of Urology*, Official Journal of the American Urological Association (AUA).

"Freedom from [cancer](#), as documented by [biopsy](#), was found in 82 percent of men who underwent HGCryo, at their 18 month follow-up," according to the research by Ryan Chuang, MD, and colleagues at the University of California, Los Angeles. The importance of utilizing modern magnetic resonance imaging (MRI)-guided [prostate biopsy](#) in monitoring the effectiveness of HGCryo is also emphasized as part of this study.

## **'Hemi-gland cryoablation' eliminates clinically significant cancer in most patients**

In the HGCryo procedure, using an advanced ultrasound/MRI fusion system, needles are precisely placed in and around the area of the [prostate](#) where the cancer is located. Argon gas is then injected to create extremely cold temperatures, destroying the cancer and surrounding area.

According to the study, 61 men with clinically significant prostate cancer (grade 2 or higher) involving one side of the prostate gland, underwent HGCryo. Cryotherapy was performed using general anesthesia; patients were discharged on the same day as the procedure. The results were assessed through follow-up imaging procedures and MRI-guided biopsies.

Biopsies were performed at 6 months in all patients; 27 patients underwent an additional biopsy after reaching 18 months' follow-up. At both times, biopsies showed no evidence of clinically significant prostate cancer in 82 percent of patients. In men who had areas of prostate cancer detected at follow-up, repeated HGCryo or other treatments were effective.

The study assessed three different biopsy approaches for monitoring the

outcomes of HGCryo therapy: tracking of prior cancer-positive sites, biopsy targeting of MRI-visible lesions, and systematic biopsy of the entire prostate using a template. "While tracking biopsy was the most sensitive, all three methods were required for maximum cancer detection," Dr. Chuang and coauthors write.

HGCryo provided notable cancer control even in six patients with more advanced prostate cancers (grade 3 or 4). None of the patients died from their cancer, and none developed [metastatic prostate cancer](#).

Postoperative complications of HGCryo were "generally mild and short-lived." There were no serious complications, including [urinary incontinence](#)—a common complication after prostate cancer surgery. One patient developed erectile dysfunction, which was successfully treated with medication.

Cryotherapy is an FDA-approved treatment for prostate cancer and is increasingly popular as a less-invasive alternative to surgery. However, there has been limited evidence on its long-term effectiveness in controlling prostate cancer. Most studies of prostate cryoablation were performed before the availability of modern multiparametric MRI scanning of the prostate, which can provide "a targeted path to precise biopsy and focal treatment" in most men with prostate cancer.

As with other types of partial gland ablation (PGA) for treatment of prostate cancer, the findings highlight the importance of follow-up biopsy as "the most important criterion for success" in evaluating the results of HGCryo. Dr. Chuang and colleagues conclude, "As utilization of MRI-guided biopsy increases, with resulting improved accuracy of prostate tissue characterization, numbers of candidates for PGA are expected to rise."

**More information:** Ryan Chuang et al, Hemigland Cryoablation of

Clinically Significant Prostate Cancer: Intermediate-Term Followup via Magnetic Resonance Imaging Guided Biopsy, *Journal of Urology* (2020). [DOI: 10.1097/JU.0000000000001133](https://doi.org/10.1097/JU.0000000000001133)

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