

Irreversible Electroporation (IRE) using the NanoKnife System for Intermediate-Risk Prostate Cancer

A Non-Surgical Option for Prostate Cancer Treatment



What is Irreversible Electroporation (IRE)?

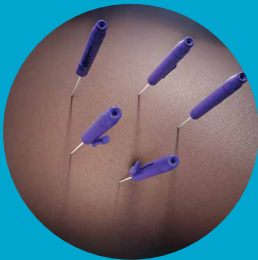
If you have been diagnosed with intermediate-risk prostate cancer, you might be looking for a cancer treatment that is effective while minimising the risk of side effects often associated with conventional therapies.

That is where Irreversible Electroporation (IRE) with NanoKnife system comes in. So, what is IRE?

- Minimally invasive tumour treatment
- Uses electrical pulses
- Targets and destroys cancer cells
- Preserves surrounding healthy tissues



The NanoKnife System



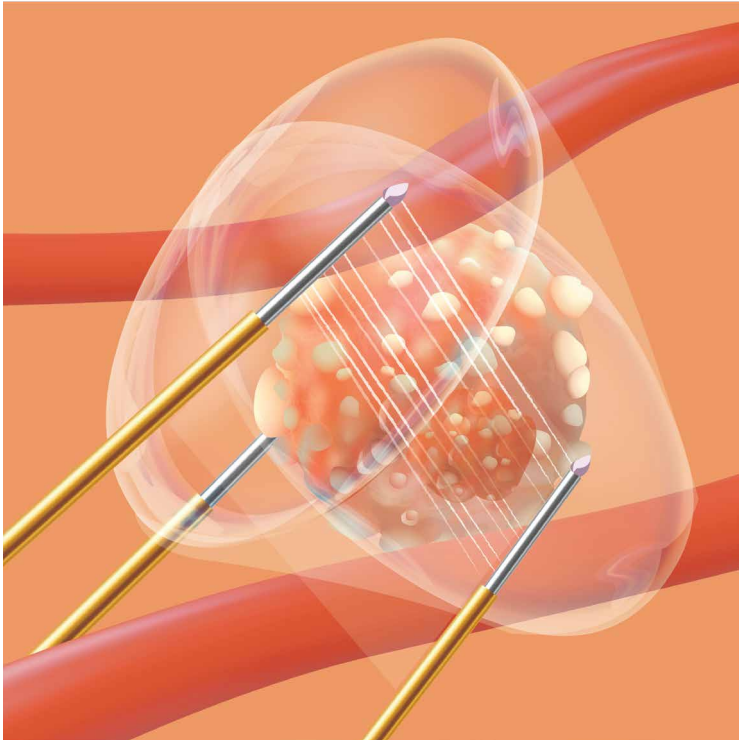
A Surgery-free option for prostate cancer



Uses electrical pulses to destroy tumour

How IRE Works - A Modern Approach to Prostate Cancer Treatment

IRE delivers controlled electrical pulses through thin, needle-like electrodes to destroy targeted prostate cells while preserving surrounding nerves and vital structures. This helps maintain urinary and erectile function — a key benefit for men prioritising quality of life after treatment.



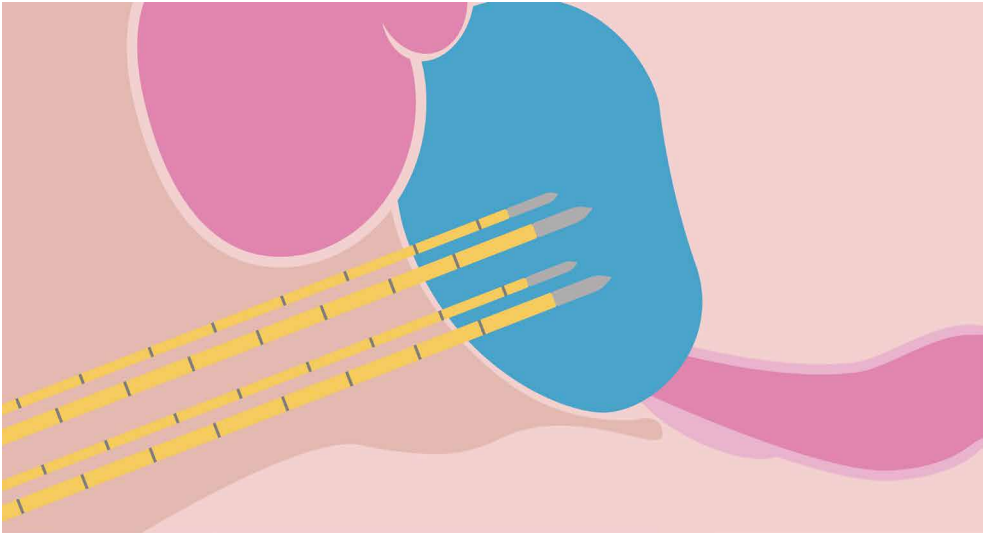
What to Expect in Your Procedure:

Pre-Procedure

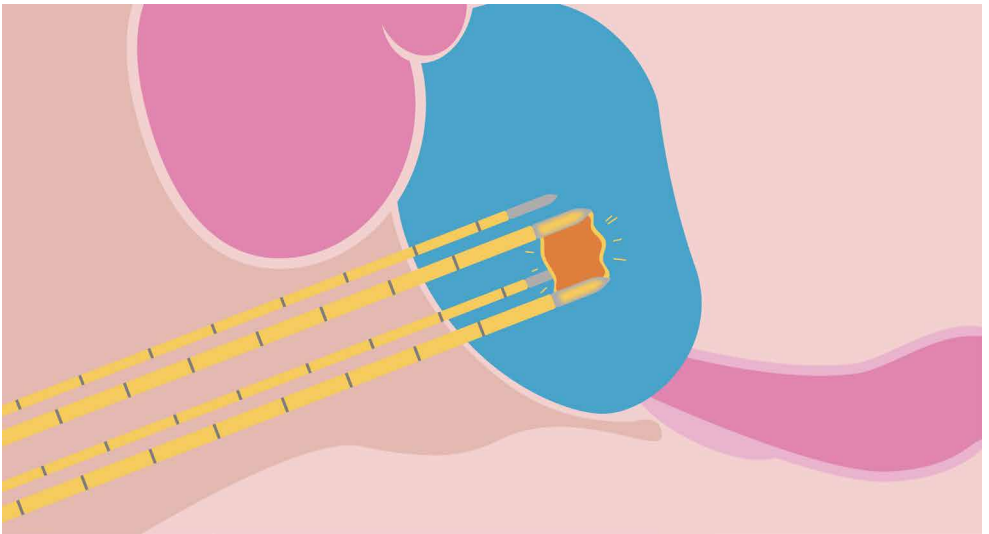
1. You will undergo blood tests, MRI scans, and a prostate biopsy.
2. A pre-surgery medical check-up will be scheduled.
3. You will receive general anaesthesia during the procedure.

During Procedure

1. Thin, needle-like electrodes are carefully inserted into the prostate using ultrasound guidance.
2. Electrical pulses are delivered through these electrodes to destroy the prostate tumour.
3. A urinary catheter will be inserted during the procedure.



Electrodes are carefully inserted into the prostate using ultrasound guidance.



Electrical pulses are delivered through electrodes to destroy the prostate tumour.

Post-Procedure

1. You will be monitored in the recovery room.
2. A urinary catheter will usually remain for a short time (usually 1–7 days).
3. Follow-up instructions will be given to confirm the effectiveness of treatment.
4. You will be discharged on the same day or after a short hospital stay.

Advantages of the IRE over Conventional Prostate Cancer Treatment



Less Pain

IRE is a minimally invasive treatment – no major incisions and just tiny, precise needle placements.



Minimal Recovery Time

IRE prostate is typically an inpatient procedure, so you can go home the same day or after a short stay.



Safe and Effective

Helps preserve urinary and sexual function with reliable destruction of targeted cells. IRE does not use heat or radiation.



Conserve Future Options

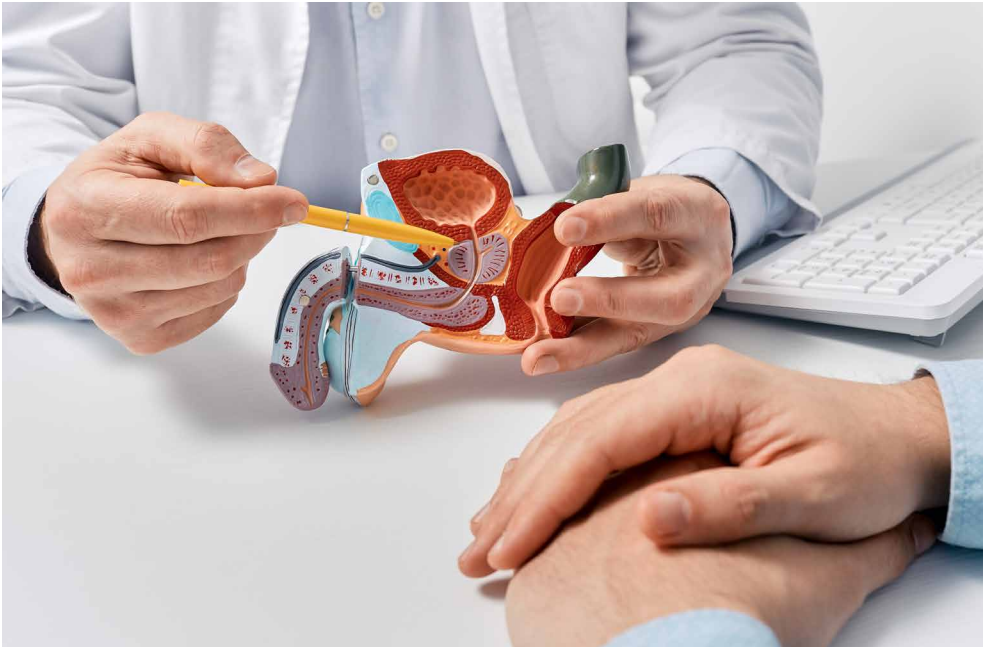
Procedures can be repeated if necessary and do not interfere with other treatment modalities.

Who is Suitable for IRE?

If you have been diagnosed with intermediate-risk prostate cancer, you may be a candidate for IRE. Generally, IRE is recommended for prostate cancer patients who:

- Are suitable for focal therapy that targets only the tumour
- Prefer a minimally invasive option with quicker recovery and improved quality of life

Our team of experienced urology doctors and oncology team at Hospital Picaso, will carefully assess your condition and guide you through whether IRE is the right choice for you.



FAQs: Irreversible Electroporation (IRE)

Q: Is the IRE procedure painful?

A: Most patients report feeling no pain during the procedure as it's performed under general anaesthesia. Afterward, you might experience mild discomfort, which can be managed with medication.

Q: How long will I stay in the hospital?

A: Typically, IRE is performed as a day-care procedure, meaning you can go home the same day. In some cases, you may stay overnight for observation.

Q: What should I expect after the treatment?

A: You can expect minimal downtime and may return to light activities within a few days. Most patients resume full activities within 1-2 weeks.

Q: Is IRE a long-term solution for prostate cancer?

A: IRE effectively targets the tumour, but ongoing follow-ups with your urology doctors, such as PSA tests and MRIs, are crucial to monitor for any changes. Some patients may need additional treatments depending on their response.

Q: Are there any risks associated with IRE?

A: Like any medical procedure, there are potential risks, but they are minimal. Temporary urinary symptoms or discomfort are the most common, but serious complications are rare.

Our IRE Specialists

Every IRE procedure is guided by our experienced Consultant Urologists, ensuring precision, safety, and personalised care.



Dato' Dr Loh Chit Sin
Consultant Urologist



Dr Badrulhisham Bahadzor
Consultant Urologist



Dr Fam Xeng Inn
Consultant Urologist

If you or someone you care about is considering IRE for prostate cancer, let's talk about how this treatment could work for you. Schedule your appointment now.

P;caso

HOSPITAL PICASO

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