

# Benign Prostatic Obstruction (BPO)

## Holmium Laser Enucleation of the Prostate (or HoLEP) becomes the Gold Standard for surgical treatment for BPO

Benign prostatic hyperplasia (BPH) can cause bothersome lower urinary tract symptoms (LUTS) that affect quality of life by interfering with normal daily activities and sleep patterns. It remains one of the most common conditions affecting aging men, presenting a growing issue in the ageing population. BPH commonly affects the transitional zone of the prostate, which encircles the urethra and thus leads to restriction of urinary flow out of the bladder. This is termed benign prostatic obstruction (BPO).

Historically a TURP (TransUrethral Resection of the Prostate), was considered the Gold Standard for surgical treatment of BPO. When the prostate size is more than 90-100cc, the only option was an open surgical approach.

Although TURP is effective, side effects are common and mainly consist of bleeding during surgery and in the postoperative period. It usually takes 2 to 3 days before patients can be discharged postoperatively. After discharge, it can take up

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After he finished his PhD on a novel treatment for BPH, he started his training in Urology in 1996. In 2002 he became a Consultant Urological surgeon in a prestigious training hospital in the South of the Netherlands. There he was responsible for the minimal invasive endourological unit in Catharina Hospital in Eindhoven. He mainly focussed on the treatment of complex kidney stones and in 2015 he was the first to introduce the HoLEP procedure in the Netherlands.

In 2020 he decided to immigrate to Ireland with his Irish wife and their two children.

He is presently working in Beacon Hospital in Sandyford Dublin where he introduced the HoLEP procedure into Ireland.



to 6 weeks before haematuria completely resolves. Sometimes haematuria necessitates hospital re-admission for bladder rinsing and at times surgical blood clots removal. Furthermore, with TURP it is not always possible to remove prostate obstruction completely.

Several alternatives to TURP have been tried in the last 25 years. At first it was done by heating up the prostate with microwave energy (TUMT). Although in urology lasers were already used for kidney

stone treatment for 40 years, in the 1990's lasers were introduced as an option to treat BPO by heating up the prostate with laser energy to reduce the obstruction. Advances in laser technology enabled systems that could vaporise tissue.

Although a medical laser has a high-tech ring to it, it unfortunately is not an immediate guarantee for a successful, beneficial and longlasting outcome for the patient.

Over the years, several devices have come and gone. Not because they had more side effects than TURP, it was actually the opposite. Side effects of bleeding were reduced with laser vaporising of prostatic tissue. Unfortunately, there appeared to be limited objective improvement. Long term effect of the Greenlight laser (or PVP) and the Thulium laser also appeared not to be better. This often led to a second surgical procedure - usually a TURP and made all these new procedures not stand the test of time.

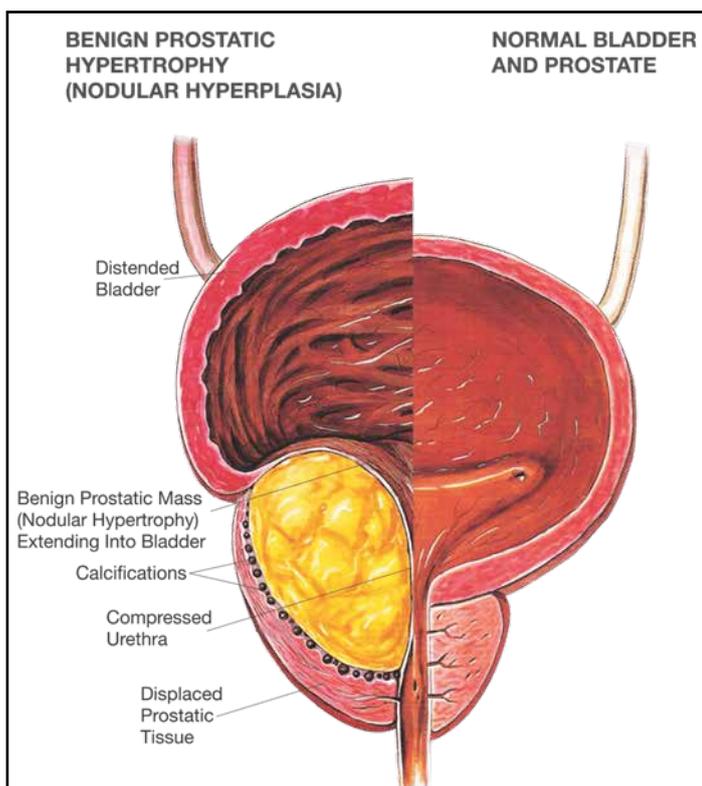
It has been shown that enucleation of the prostate, which completely removes the obstructive part of the prostate (the transition zone), has been the most beneficial, effective and with long term durability. The Millin technique, first described by an Irish surgeon in 1945, is an open surgical procedure by which an enucleation of the obstructive prostate is performed. It was in 1998, when Peter Gilling

published his first results with an endoscopic approach that achieved essentially the same but now with only minimal side effects and with a significant shorter recovery time and hardly any blood loss during and after surgery.

The technique Gilling introduced was the **Holmium:YAG Laser Enucleation of the Prostate or HoLEP**.

HoLEP removes all of the obstructive part of the prostate (transitional zone), leaving only the prostate capsule behind. This creates a maximum opening of the prostatic urethra. The use of laser energy during the procedure has a two-fold effect. Firstly, the laser energy together with the blunt cystoscope causes the adenoma to separate from the capsule and secondly seals all small vessels that are torn by this separation. Major bleeding during surgery and postoperatively does not occur.

After HoLEP surgery, the majority of patients can have their (post-operative) transurethral catheter removed the next day and discharged. Usually, the postoperative complaints in the first 6-8 weeks are similar to



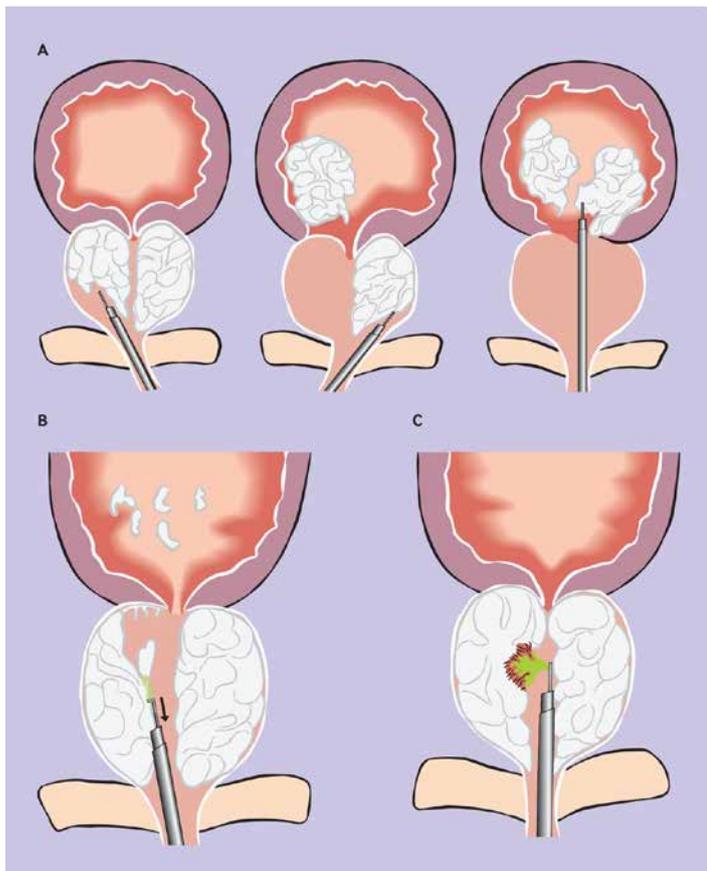


Figure 1. Comparison of three surgical techniques (from BMJ 2019;367:l5919)

(A) HoLEP enucleation, (B) TURP and (C) laser vaporization

those seen after TURP. However, the results in both objective and subjective parameters are superior to TURP.

Long term results of HoLEP are also more permanent than after

TURP. Conventional TURP or laser vaporisation leaves residual prostate adenoma that can give rise to recurrent growth of the prostate adenoma. These patients present with painless gross haematuria, recurrent LUTS,

elevated PSA or retention of urine and need second surgery. To overcome the problem of recurrent adenoma, enucleation is the surgical treatment of choice. After HoLEP the prostate capsule is not able to grow and therefore

adenoma growth over the years, as is seen after TURP, does not occur. HoLEP enucleation is highly effective and durable (see Figure 1).

Bigger sized prostates of 100-200cc can also be treated by HoLEP. In randomised studies, the results of HoLEP have proven to be equal to an open prostatectomy without the complications of severe bleeding and with significant quicker recovery and removal of the transurethral catheter.

In conclusion, HoLEP is a more effective surgical therapy than TURP, open prostatectomy and other laser modalities, with fewer complications, shorter hospital stay, decreased catheter time and durable long term effect. This is confirmed by the European Association of Urology Guidelines of May 2020: "Offer laser enucleation of the prostate using Holmium:YAG laser (HoLEP) to men with moderate-to-severe LUTS as an alternative to transurethral resection of the prostate or open prostatectomy".

These benefits make HoLEP the procedure of choice for men seeking surgical relief for BPO and makes it the Gold Standard for the 21st Century.

Presently in Ireland, HoLEP is only offered in Beacon Hospital in Dublin.

## Appetite for Vaccine Rises to 85%

The number of people who intend to get vaccinated for Covid-19, or who have already received a vaccine for the disease, has risen to 85%, according to the results of the latest tracker survey by Ipsos MRBI for the Irish Pharmaceutical Healthcare Association (IPHA) which represents the international research-based biopharmaceutical industry.

The results show that 73% of people will take a Covid-19 vaccine. But when combined with the vaccinated cohort, or 12% of the sample\*, that number rises to 85% – 10 points higher than the percentage of people who said in January that they would take a Covid-19 vaccine.

Between January and April, the number of people who said they

either won't get vaccinated for Covid-19 or were unsure about taking a vaccine has declined. In January, 7% said they would refuse a Covid-19 vaccine and 18% were unsure. This month, 6% say they will refuse a Covid-19 vaccine and 10% are unsure.

Intention to take a Covid-19 vaccine is higher among older age groups and some in these groups have already been vaccinated. While just 6% of people overall say they will not take a Covid-19 vaccine, it is highest among 25 to 34-year-olds, at 10%. While 10% say they are unsure about taking a Covid-19 vaccine, in the 18 to 24-year-old cohort it is 21%.

Bernard Mallee, Director of Communications and Advocacy at IPHA, said, "It is encouraging

that the public's appetite to get vaccinated for Covid-19 has been steadily increasing since the start of the year. There is no room for complacency though. We must keep facts to the forefront and trust the science. We are sharing on our social channels the benefits of immunisation through facts-based messaging and personal everyday stories told through film. As we start European Immunisation Week, communication and engagement are important in building confidence.

"Vaccines are rigorously tested in clinical trials and closely monitored in the community by independent regulatory agencies. Vaccines offer protection against infection which, allied with responsible behaviours, have an impact on

the transmission of the virus. As more of us get vaccinated, we can expect to see greater protection in the community. While all that is happening, we should keep following public health advice.

"Our industry, working with so many others, is bringing forward safe and effective COVID-19 vaccines in record time. Companies are working hard to surge COVID-19 vaccines production to meet global demand. Because of viral mutations, modified vaccines are in development. Much of our progress has been enabled by global collaboration and by science. Safety and effectiveness are our watchwords. Eventually, we will beat the pandemic, knowing there are better days to come."