

**NORTHERN BEACHES**  
INTERVENTIONAL RADIOLOGY



**A Guide to  
Managing &  
Treating  
Benign Prostatic  
Hyperplasia**

# About Us



Northern Beaches Interventional Radiology was started by Dr Shaun Quigley, an Interventional Radiologist and endovascular specialist with over 15 years experience.

Interventional Radiology is a medical specialisation that combines radiology and surgery. An Interventional Radiologist (IR) is skilled in the use of imaging equipment, such as x-rays and MRIs, to first get a clear picture of what is happening inside a patient, and then uses years of specialist training to perform treatments that combine the clarity of precise imaging with minimally invasive procedures.

The vast majority of treatments are performed under sedation (twilight) and local anaesthetic. Tiny specially designed tubes and wires are used inside blood vessels to deliver a range of treatments. Access is often through a pinhole incision with no scar. This allows IRs to treat conditions without large scars and the associated complications. Interventional Radiologists can also offer treatment to patients who are unable to have more invasive surgical treatments due to other medical conditions or blood-thinner medication.

# Meet Dr Shaun Quigley

FRCR FRANZCR EBIR

---



Dr Quigley completed his medical training in the UK graduating from the University of Glasgow. He went on to work at some of the UK's busiest and most prestigious hospitals, including Europe's largest trauma hospital and one of the UK's busiest liver and kidney transplant units. He worked as a specialist Interventional Radiologist at the Royal Free Hospital in London, gaining expertise in the treatment of cancer, fibroids, liver and venous disease. He relocated to Sydney with his family in 2017 and now works primarily at the new Northern Beaches Hospital.

Dr Quigley has recognition and accreditation in both the UK (as a Fellow of the Royal College of Radiologists) and Australia (as a fellow of the Royal Australian and New Zealand College of Radiologists). He is also one of the few Australian Interventional Radiologists to have been awarded the European Board of Interventional Radiology (EBIR)- international recognition of advanced experience, knowledge and skills in Interventional Radiology.

# Defining BPH

---

## What is Benign Prostatic Hyperplasia?

Benign Prostatic Hyperplasia (BPH) is an enlargement of the prostate gland which is not related to cancer. It is a common condition in older men, affecting around 1/3 of men over 50 and 60% of men over 60.

It occurs when the cells in your prostate gland start multiplying, which causes the gland to increase in size and squeeze the urethra.

BPH is definitely not the same as prostate cancer and does not put you at a greater risk of developing cancer, but it can be uncomfortable and impact your quality of life.

## What are the Symptoms of Benign Prostatic Hyperplasia?

The symptoms of BPH include:

- A burning sensation or otherwise painful urination (known as dysuria)
- Difficulty urinating, such as dribbling or hesitant urination
- Frequent urination, particularly at night (known as nocturia)
- An urgent need to urinate
- Straining to urinate
- Incontinence
- Difficulty emptying your bladder, or experiencing dribbling at the end of urinating
- Cloudy urine
- Blood in the urine

## What Causes Benign Prostatic Hyperplasia?

BPH is, unfortunately, considered a normal condition that comes as men get older. Despite not knowing the exact cause of BPH and enlarged prostates, we do know that there are certain risk factors that increase your chances of developing problems with your prostate:

### Age

As we've already mentioned, most men will develop a prostate problem as they age, and many doctors and specialists believe that a drop in testosterone production is a major cause.

For most men, you won't have any warning signs or symptoms until you're at least 40, with about 1 in 3 men over the age of 60 experiencing moderate to severe symptoms, and about 1 in 2 by age 80.

### Family History and Genetics

Having a blood relative (for example, a father or a brother) with a prostate condition increases the likelihood of you developing problems.

One study found that in men younger than 64 who have surgery for BPH, there is a 4x increase in risk for male relatives, and a 6x increase in risk for brothers.



## Diabetes

Studies have also found that diabetes may increase your risk of developing BPH or other prostate conditions. This may be caused by the increase in insulin, which can affect prostate growth.

## Lifestyle and Weight

Several lifestyle factors are associated with an increased risk of developing BPH, including diet. An increased total energy intake, energy-adjusted total protein intake, red meat, fat, milk and dairy products, cereals, bread, poultry, and starch all potentially increase the risks of clinical BPH and BPH surgery, while vegetables, fruits, polyunsaturated fatty acids, linoleic acid, and vitamin D potentially decrease the risk of BPH.

An analysis of 11 studies, found that those who exercised at a moderate to vigorous level reduced their risk of BPH by 25% compared to those who lived a sedentary lifestyle.

Bodyweight, body mass index (BMI), and waist circumference have all been positively associated with prostate volume in multiple different studies.



# Treating & Managing BPH

---

## Lifestyle, Medication & Natural Remedies

For many men, treating BPH usually starts by examining certain lifestyle factors that we know can aggravate the symptoms, and severity of symptoms, of prostate problems. If your symptoms are moderate, your doctor may also prescribe medication.

This section will look at the various lifestyle factors, natural remedies and medication that can help treat your symptoms.

### **Diet**

There are multiple studies linking a healthy, balanced diet to a reduced risk of prostate diseases, including prostate cancer. Even though we are about to list some specific pieces of advice, almost all the research suggests that the best approach is to enjoy everything in moderation and to focus more on overall eating habits:

#### Leafy greens for antioxidants

Leafy fruits and vegetables, particularly green ones, are high in antioxidants that have been linked with prostate health. Go for food like kale, spinach, broccoli, and the like.

## Good fats

Avocados, nuts and olives are all high in omega-3 fats and are full of 'good fats' and make up the bulk of the Mediterranean diet, a diet touted for its overall health and ease with which most people can adopt it. If you are looking for a prostate-friendly diet, the Mediterranean diet may be perfect for you.

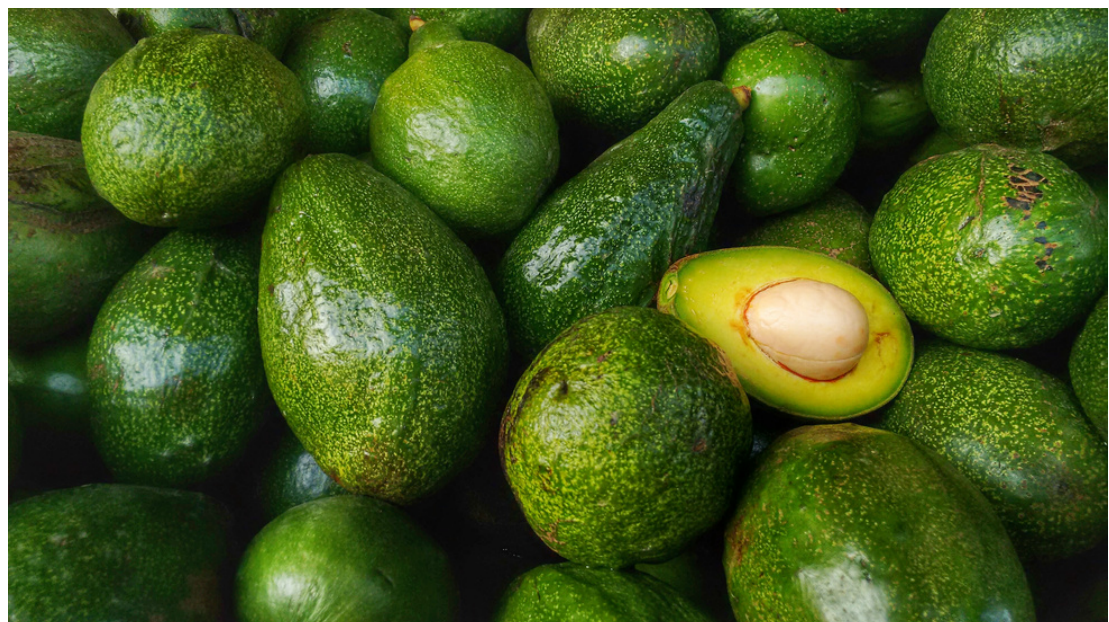
## Low in sugar

Sugary food is never a good thing in large quantities, and the same goes for sugar-filled drinks such as soda and juice. While not specifically connected to prostate health, reducing sugar consumption is a simple habit most people can adopt to quickly reduce body fat and manage their weight (more on this shortly).

## Low in saturated fats

Saturated fat has been linked with heart health for some time, and reducing your consumption is another simple step towards healthier eating patterns. Some common foods that are high in saturated fats you want to avoid include:

- butter and coconut oil
- cakes and biscuits
- sausages
- bacon
- cheese
- chocolate





## Cut back on red meat

Red meat has been associated with PhIP, a chemical compound found in charred red meat and linked to higher risk of prostate disease (studies have proven a causal relationship between PhIP and prostate cancer in rats, finding that grilled hamburger patties had the greatest impact).

## Alcohol isn't the enemy

One piece of advice we always give to patients with a prostate condition is to limit their caffeine and alcohol intake, particularly from the late afternoon onwards as this can exacerbate bladder issues.

However, research has shown that alcohol consumption can have a protective effect against BPH. An analysis of 19 studies found a 35% decrease in the likelihood of developing BPH in men who drank daily. Just remember to drink in moderation as alcohol also contains 'empty calories' and can lead to weight gain.



## Exercise & Yoga

Studies have shown that men who exercise regularly and maintain a good body weight have a lower risk of developing prostate disease, such as prostate cancer and benign prostatic hyperplasia.

When it comes to exercise, it can be as simple as 30 minutes of moderate-intensity activity - enough to break a sweat should do the trick - 5-6 days a week.

Researchers found that men who undertook moderate exercise reduced their risk of developing BPH by up to 25%.

Not only is exercise beneficial for prostate health but it can improve your overall quality of life, and help you maintain a healthy body weight, which has been shown to reduce your risk of prostate disease.

Some studies have indicated that a BMI of 30 or higher increases the risk of disease.



## Can Yoga Cure an Enlarged Prostate?

Studies show that regular yoga practice can be helpful in managing the symptoms of an enlarged prostate, therefore improving health and quality of life for men who live with prostate illnesses.

One study published in the *Journal of Cancer Research and Therapeutics* in 2016 aimed to investigate the effect of yoga on symptoms and quality of life in prostate cancer patients.

The study was a randomized controlled trial, which included 60 men with prostate cancer who were divided into two groups: a yoga group and a control group. The yoga group participated in a 12-week yoga program that included asanas (yoga postures), pranayama (breathing exercises), and meditation. The control group received usual care.

The study found that the yoga group had significant improvements in symptoms such as fatigue, sleep disturbances, and emotional distress, as well as in quality of life, compared to the control group.

Yoga has also been proven to improve physical fitness and promote wellness, as well as support immunity and reduce inflammation. Yoga can also help with stress, improving mental health and wellbeing.

Some yoga poses can even be helpful in reducing the pressure the prostate gland places on the bladder and urethra, helping to reduce uncomfortable symptoms.



## Reduce Your Stress

Having BPH can be stressful on its own, but studies are also showing that being stressed can aggravate the symptoms of BPH. In a way it becomes a self-repeating cycle:

- BPH symptoms make you feel stressed
- This added stress, along with life's usual pressures, aggravate BPH symptoms
- BPH symptoms worsen, making you feel more stressed
- And so on...

Managing stress is therefore an important aspect of managing any existing BPH symptoms. Stress management comes in many forms, such as exercising, reading or meditating.

## Herbal Remedies

In some cases, herbal remedies can complement lifestyle changes to support improved prostate health. Under medical guidance, herbal remedies can be a valuable addition to your treatment plan. These are some of the best herbs to shrink your prostate:

### Saw Palmetto

Derived from a palm tree, saw palmetto has been used for centuries to address urinary health concerns. Several small studies by the US National Institutes of Health have shown that saw palmetto is effective for relieving prostate enlargement symptoms. However, larger studies could not distinguish between herbal remedies and placebo results. When using saw palmetto, be aware of minor side effects, such as headache or gastrointestinal illness.

## Beta-Sitosterol

Beta-sitosterol incorporates a mixture of plants containing cholesterol-like substances: sitosterols or phytosterols. Some studies suggest that beta-sitosterol can improve urine flow and reduce prostate enlargement symptoms.

## Stinging Nettle

Stinging nettle is commonly used to treat benign prostate hyperplasia symptoms. Stinging nettle can reduce urinary frequency, urgency, and night-time urination. It can be helpful when used alongside conventional treatments. Stinging nettle can cause minor side effects, including stomach illness and skin rash.

## Tumeric

Turmeric in small doses (1/2 teaspoon per day) may have potential benefits for conditions such as BPH, but more research is needed as the absorption of turmeric at these low doses is limited. Adding turmeric to meals like smoothies or oats can be beneficial for men's health. Additionally, research suggests that combining turmeric with certain vegetables may lower the risk of prostate cancer and inhibit tumor growth in certain animal studies.



## Medication

Recent advances in medications now provide men suffering from benign prostatic hyperplasia, or an enlarged prostate, multiple treatment options. Where you used to have to undergo surgery, you can now be prescribed medication to help relieve your symptoms - in fact, you can even try over-the-counter medicines to get some relief!

### Anti-Inflammatories

More commonly known as ibuprofen or aspirin, anti-inflammatories can be taken to help relieve the symptoms of an enlarged prostate.

### Alpha-Blockers

Alpha-blockers are a blood pressure medication. They lower blood pressure by preventing a hormone called norepinephrine from tightening the muscles in the walls of smaller arteries and veins. This makes it easier to urinate, despite not changing the size of your prostate.

Alpha blockers are definitely there to treat the symptoms, not the cause, but this is fine for sufferers who only have mild to medium symptoms. Like most medications, they do come with side effects, which can include dizziness, fainting, headaches, lightheadedness and low blood pressure.

They aren't ideal for men looking to have children, as they can cause retrograde ejaculation - where the sperm goes back into your bladder when you orgasm.



## 5-Alpha Reductase Inhibitors

These are a group of drugs used to treat enlarged prostate glands by preventing your body producing the hormone that makes your prostate grow. They can help prevent further growth, and in some cases may even shrink your prostate, helping relieve the symptoms and making it easier to urinate.

One major drawback of 5-alpha reductase inhibitors is the need to take them continuously to keep receiving the benefits. Other side effects include:

- Erectile dysfunction
- Lower sex drive
- Retrograde ejaculation

## Phosphodiesterase-5 Inhibitors

Phosphodiesterase-5 Inhibitors are used in the treatment of erectile dysfunction but can also be helpful for men suffering from BPH as they smooth the muscles in the bladder and prostate, relieving symptoms as they can act as powerful anti-inflammatories.



# Treating & Managing BPH

---

## Surgical Intervention

### Minimally Invasive Treatments

When it comes to treating BPH, our go-to treatment is one that is minimally-invasive, requires very little recovery time, is suitable for a wide range of men, and offers a success rate of over 90%! What is it? It's called Prostatic Artery Embolisation.

#### Prostatic Artery Embolisation

Prostatic Artery Embolisation (PAE) is an innovative, minimally invasive procedure used to help improve lower urinary tract symptoms (LUTS) caused by benign prostate hyperplasia.

It is considered to be a safe and effective method of treating an enlarged prostate in Australia and has been shown to yield great results: over 90% of men gain symptomatic improvement (decreases in prostate volume and increases in urinary flow rates) following the procedure, and undergoing PAE doesn't prevent you from undergoing other prostate reduction procedures later on.

This is a complex procedure that can only be performed by a specialist interventional radiologist with expertise in the area.



## How is PAE Performed?

PAE is generally done under sedation and a local anaesthetic. This makes PAE a viable option for men with complex medical issues who can't have the general anaesthetic required for more invasive treatments.

Following sedation, a tiny tube is inserted into the femoral artery via the groin area and guided into the prostate arteries using X-rays. This tube can also be inserted via the radial artery in the wrist, which allows for quicker mobilisation post-procedure and discharge from the hospital.

It is then used to deliver tiny particles which embolise (block) the arteries, reducing blood flow to the prostate and causing it to decrease in size in the days, weeks, and months following the procedure. You may feel some minor burning sensations during treatment, but this is normal and rarely too painful. The entire procedure generally lasts 2-3 hours.

Following the procedure, you will need to remain in the hospital for up to two hours for a radial procedure and six hours for a femoral procedure. There is no need to remain overnight, and (unlike with more invasive treatment options like TURP) there is only a 5% risk of needing a catheter post-procedure.

## What is Recovery Like?

Following your Prostatic Artery Embolisation, you will be given a prescription for antibiotics and advised to take painkillers and anti-inflammatory medication. You'll need to take a week of rest and avoid exercise, heavy lifting, and intercourse, and you may experience some tiredness and burning pain when passing urine in the next few days. These symptoms usually settle after a week or so.

## What are the Benefits of PAE?

There are a range of benefits associated with Prostatic Artery Embolisation. Firstly, it has been proven to achieve results for around 90% of patients who undergo the procedure.

Secondly, since the procedure itself is not considered a 'major' surgery, patients can expect reduced post-procedural side effects. For most procedures done by an IR, we like to say you get improved 'lifestyle outcomes' - faster recovery, less painful recovery, shorter hospital stays, and avoiding major surgery.

Other benefits of PAE include:

- Minimally invasive procedure - it only requires a small incision in your wrist or groin.
- Typically performed as an outpatient procedure, meaning you won't need to stay overnight
- When compared to other surgeries, such as TURP, PAE offers a shorter hospital stay and a faster recovery time
- Less likely to require urethral catheterization in comparison to surgery
- Relieves lower urinary tract symptoms (LUTS) such as feelings of urgency and frequency especially at night (nocturia), incomplete bladder emptying, weak urine stream, intermittency, and straining while urinating
- Comes with a lower risk of negative side effects, especially sexual or incontinence, when compared with other surgery options
- Overall significant improvement in quality of life
- Can be used without limits on prostate size, urethral narrowing, or bladder capacity

## Rezum Water Vapour

Rezum, sometimes referred to as steam therapy, is another minimally invasive treatment that uses the thermal energy stored in water to reduce the obstructive prostate tissue that is causing the enlargement and subsequent symptoms.

A telescope is passed through the urethra into the prostate, and the Rezum device is then passed through the telescope where heated water in the form of vapour is dispersed into the tissue. The process is repeated a number of times, depending on your prostate size, resulting in the death of the enlarged tissue.

Rezum, unlike PAE, requires the placement of a catheter upon completion of the treatment, which will stay in for about 7 days. Also unlike PAE, recovery tends to take a bit longer and it's not uncommon for the symptoms to get worse before they get better.

## UroLift

UroLift treats BPH by inserting a device via the urethra that holds the prostate gland permanently in place so that the passage is kept clear, reducing the symptoms associated with BPH.

UroLift is also considered minimally invasive as it is done as a day surgery, requiring no overnight stay in the hospital. With UroLift you'll notice an improvement in symptoms after around 2 weeks, and you may feel some discomfort while urinating for a few days directly after the procedure. Most men can return to work around 3 days after the procedure.

## Prostate Laser Surgery

BPH and enlarged prostates can also be treated with laser surgery, where your doctor inserts a scope through the tip of your penis into the tube that carries urine from your bladder (urethra). The prostate surrounds the urethra, and if the prostate is enlarged, it restricts urine flow from the bladder. A laser passed through the scope delivers energy that shrinks or removes excess tissue from the prostate that is preventing urine flow.

## Major Surgery

There are other alternatives for treating BPH, and many of them are considered invasive procedures or major surgery.

### Transurethral Resection of the Prostate (TURP)

Transurethral resection of the prostate (TURP) is a surgery used to treat urinary problems that are caused by an enlarged prostate.

An instrument called a resectoscope is inserted through the tip of your penis and into the tube that carries urine from your bladder (urethra). The resectoscope helps your doctor see and trim away excess prostate tissue that's blocking urine flow.

TURP has, until very recently, been considered the 'gold standard' in treating BPH due to its success rate. However, there are quite a number of risks and downsides associated with the procedure, and the emergence of a range of minimally invasive alternatives has meant that TURP is becoming less popular and less-performed.

### Prostatectomy

Prostatectomy is the removal of all or part of the prostate gland. It is most commonly used as a form of cancer treatment but is sometimes used to treat BPH if the symptoms are severe enough. When used to treat BPH, it's very uncommon for the doctor to remove the entire prostate, but to rather remove the part that is blocking the flow of urine.



# Am I eligible for Prostatic Artery Embolisation?

-----  
Minimally invasive  
treatment for BPH

## Am I Eligible?

Unfortunately, many men will experience some form of prostate condition during their lifetime. The key to both maintaining a high quality of life and ensuring overall health is to first understand the signs and symptoms (as well as knowing whether certain factors place you at higher risk), and to be proactive in seeking treatment.

That's where we can help. If you feel you may have a prostate condition, make a booking today to discuss your options. We accept referrals from your General Practitioner or Urologist, or you can contact us directly to set up an appointment\*.



**Book a Consultation**

*\* Please note that we are unable to provide treatment options for patients diagnosed with prostate cancer or prostatitis. If you have been diagnosed with either of these, please speak with your GP or Urologist to discuss treatment options.*



# Contact us for further inquiries

[www.nbir.com.au](http://www.nbir.com.au)

[info@nbir.com.au](mailto:info@nbir.com.au)