

# Prostate Brachytherapy

Prostate cancer is the most important cancer issue for men. Over 30,000 patients are diagnosed with the disease each year and 10,000 die from it. However, with PSA testing and greater awareness of the condition, more men are now being diagnosed with early, organ confined disease where cure is a real possibility.

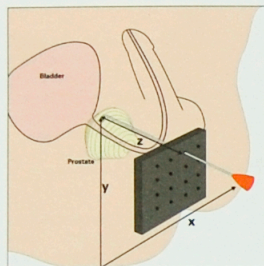


Figure 1

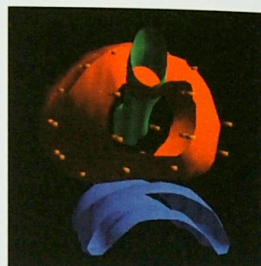


Figure 2

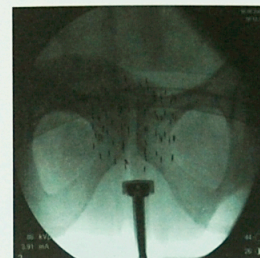


Figure 3

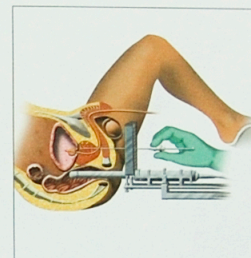


Figure 4



**Professor Stephen Langley**  
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Traditionally, treatment options have been to remove the prostate gland by open or key hole surgery, or external beam radiotherapy, which is delivered daily over seven and a half weeks. Both options carry significant side effects, not least incontinence and impotence with surgery.

Prostate brachytherapy, or pin-hole surgery as it is also known, is a curative treatment for early prostate cancer, with 15 years outcomes data showing it to be just as effective as surgery but with fewer side effects. In the USA, it has become the most commonly requested treatment option for men due to its favourable side effect profile and demonstrated cure rates. Prostate brachytherapy involves inserting tiny radioactive seeds into the prostate gland under an anaesthetic. This "pin-hole surgery" may be delivered as a day case treatment or as an overnight stay with patients rapidly returning to normal activities within a few days. It allows higher doses of radiation to be delivered directly into the cancerous gland whilst sparing the delicate surrounding structures. Patients do experience a slowing of their urinary stream for 2-3 months whilst the radiation is released, but rarely is it so severe as to affect daily life.

Professor Stephen Langley, Consultant Urologist, is a pioneer of this treatment in the UK. He has trained in the USA and has

treated over 1500 men with early prostate cancer by prostate brachytherapy. He now heads up the Brachytherapy unit at the St Luke's Cancer Centre in Guildford, one of the leading centres of this treatment in Europe. The first patient was treated there in 1999 and the Centre now regularly treats over 200 patients a year.

"Having spent much of my training here and in the USA learning to perform radical prostatectomy, I was concerned over the side effects of this operation in even the most skilled hands. I now no longer perform surgery as I feel that similar cure rates are achievable with brachytherapy without the side effects for the patients," comments Stephen Langley.

The results of St Luke's Cancer Centre's first three hundred patients treated with a five year follow up were published in December 2006. This showed overall a 93% cure rate with less than 1% of patients experiencing urinary incontinence and more than 84% of patients remaining potent. Their latest research shows that these potency rates are sustained up to five years after treatment. Indeed, last year, two of their patients even fathered a child four years post treatment.

With the poor under provision of brachytherapy services in central London Stephen Langley has now set up a

brachytherapy service at The London Clinic. This service utilizes Stephen's own medical team and technicians from Guildford in order to avoid the inevitable learning curve of a new centre. The Unit which opened late last year has already successfully treated 10 patients.

The Clinic uses a one-stage, real-time, 2nd generation dynamic brachytherapy technique. Uniquely this uses seeds held in strands around the periphery of the prostate gland and loose seeds within the centre of the gland. The approach avoids the risk of the seeds moving away from the prostate whilst maximises radiation coverage.

This therapy is not suited to every patient, but for many it offers a curative treatment option with fewer side effects than the traditional treatments available. Patients best suited to brachytherapy are men with early organ confined prostate cancer and few pre-existing urinary symptoms, such as frequently getting up at night to pass urine, or a weak stream. Since the recent publication of the NICE Guidance on the Diagnosis and Treatment of Prostate Cancer, brachytherapy is the only recommended minimally invasive treatment for prostate cancer.



CONSULTANT PROFILE

Professor Martin Savage, Consultant Paediatric Endocrinologist, has recently joined adult endocrinologists Professors Besser, Bouloux, Chew and Monson in the Centre for Endocrinology at 5 Devonshire Place. The Centre is now unique in London providing a seamless endocrinology service from infancy through adolescence, to old age.

Professor Savage, a Cambridge graduate, was trained at Barts and after working in Paris and at Great Ormond Street, in 1982 was appointed to Barts and the Queen Elizabeth Hospital for Children as the first full time paediatric endocrinologist in East London. He established the paediatric endocrine unit at Barts which in 2003 moved to the Royal London Hospital. He was promoted to a personal Chair in 1998 and now has an Emeritus position in the Barts and the London School of Medicine and Dentistry.

Professor Savage worked in Paris for two years and speaks fluent French. He was General Secretary of the European Society for Paediatric Endocrinology (ESPE) from 1996 to 2003 and was awarded the ESPE lifetime achievement award, the Andrea Prader Prize, in 2007.

Professor Savage has published over 350 original articles, reviews, chapters and books. His main clinical and research interests are the management of short stature, and disorders of puberty and adrenal function, particularly Cushing's syndrome of which he is an acknowledged world authority. He also sees patients with thyroid and gonadal problems and with obesity.

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