

A LEGACY OF INNOVATION



Orange County Urology Associates
Has a Long History of Bringing
Patients the Latest Technological
Advancements to Provide
World-Class Care

Medicine is in a perpetual state of progress. Every day there are new surgical techniques, research studies, clinical trials, medicines, and new medical devices that make restoring human life better. But these new therapies also need to be clinically proven, cost-effective, and covered by insurance plans. Urology is no different. Urologists and urologic surgeons at Orange County Urology Associates (OCUA) have a long history of bringing patients from around the world the latest in medical technologies and advancements since we were founded in the 1960s.

Here are some of the more recent scientific advancements that we have brought to our patients.

Botox®

Botox® is the most popular non-surgical cosmetic treatment, with more than 7 million Botox® treatments administered each year. Botulinum toxin is used to reduce fine lines and wrinkles by paralyzing the underlying muscles. But doctors also use Botox® to treat excessive sweating, migraines, muscular disorders, and some bladder and bowel disorders.

OCUA Breakthrough: People who struggle with overactive bladder (OAB) or urge incontinence can find relief with Botox® injections into the wall of the bladder. Orange County Urology Associates was one of the original clinical trial sites for Botox® in 2005. Physicians at OCUA pioneered the use of Botox® in the bladder for OAB and urinary urge incontinence and have trained many physicians from throughout the U.S. on how to perform the procedure. Botox® injections can help treat OAB by paralyzing muscles in the bladder to prevent accidental urination. Physicians at OCUA target a specific location in the bladder wall for injections in a procedure that takes 5 to 10 minutes. While this treatment is often successful, a potential problem is incomplete emptying of the bladder and retention of urine. These require temporary use of a catheter, and this happens in about 6% of patients. Patients generally need to be treated twice a year.

For more information: www.botoxforoab.com

GreenLight™ Laser

This is an outpatient surgical procedure for the treatment of benign prostatic hyperplasia (BPH), an enlargement of the prostate gland resulting in a narrowing of the urinary channel. More than 14 million men in the United States are diagnosed with BPH. The prostate is a small gland about the size of a walnut that circles the urethra immediately below the neck of the bladder. It has a vital function in the male reproductive system by secreting a fluid into the urethra during ejaculation. In many cases, GreenLight™ Laser Therapy offers a shorter

hospital stay, less temporary catheterization time, less bleeding, and a faster recovery than traditional surgical options.

OCUA Breakthrough: Dr. Karan Singh and Dr. Moses Kim, Ph.D. pioneered the GreenLight™ laser in Orange County. The GreenLight™ laser technique uses high-powered energy beams delivered through a thin laser fiber, which safely and precisely vaporizes surface tissue at the enlarged prostate to re-open urine flow. GreenLight™ laser is being used as an alternative to transurethral resection of the prostate (TURP). GreenLight™ stands alone in its ability to give patients quick symptom relief, ease and comfort of urinary flow, and minimal short-term side effects. GreenLight™ laser has minimal bleeding, post-operative impotence is not associated with this surgical approach, and long-term success in improved urine flow is common.

For more information: <https://www.treatmybph.com/bph-patient-us/treatment-options/laser-therapy-with-greenlight.html>

Lithotripsy

Kidney stones have plagued people for millennia. Lithotripsy is a medical procedure used to treat certain types of kidney and ureteral stones using shock waves. Kidney stones occur when minerals and other substances in your urine crystallize in your kidneys, forming solid masses, or stones. These may consist of small, sharp-edged crystals or smoother, heavier formations that resemble polished river rocks. They usually exit your body naturally during urination. However, sometimes your body can't pass larger formations through urination. This can lead to kidney or urinary channel damage. People with kidney stones may experience bleeding, severe pain, or urinary tract infections (UTIs). When stones begin to cause these types of problems, your doctor may suggest lithotripsy. Surgery formerly was used to treat kidney stones, but today urologists can treat larger kidney stones using a specialized piece of surgical equipment called a lithotripter. For certain kidney stones – depending on size and location –

your doctor may recommend a procedure called extracorporeal shock wave lithotripsy (ESWL). Extracorporeal means “outside the body.” ESWL uses sound waves to create strong vibrations (shock waves) that break the stones into pieces as small as grains of sand so they can pass in your urine.

No-Needle, No-Scalpel Vasectomy

Vasectomy is the top elective surgery among men. More than 500,000 men have vasectomies each year in the United States. Vasectomy is nearly 100% effective in preventing pregnancy. A vasectomy is a safe procedure that has no effect on a man's sexual performance or pleasure. The procedure does not lower a man's testosterone, nor does it change his erections, stamina or drive. Vasectomy is used as the method of birth control by 7% of all married couples. A vasectomy is a 15- to 20-minute surgical procedure in which the two vas deferens (tubes that carry sperm from the testicles en route to the penis) are cut, cauterized (burned or seared) and/or clipped. After a waiting period directed by the doctor, semen will no longer contain sperm and conception cannot occur. Men who previously underwent vasectomy needed to endure a few needle injections down there to numb the two vas deferens before surgery. It was often a deal breaker for many men.

OCUA Breakthrough: Dr. Aaron Spitz and Dr. Karan Singh, OCUA urologists who specialize in minimally invasive vasectomy, introduced the “No-Needle, No-Scalpel” approach in 2003 in Orange County to eliminate needle sticks during a vasectomy, greatly

reducing the pain and anxiety associated with the procedure. These anesthetic techniques are now used by all OCUA surgeons performing vasectomies.

For more information: <https://auau.auanet.org/content/v3-07-no-needle-no-scalpel-vasectomy-single-surgeon-experience>

Rezūm™ System

More than 14 million U.S. men suffer from benign prostatic hyperplasia (BPH), or enlarged prostate. Surgical treatment is available.

OCUA Breakthrough: Dr. James Meaglia pioneered the Rezūm™ water vapor therapy in Orange County in 2018. The major benefit of this treatment is that it restores urine flow while preserving sexual and urinary function. The Rezūm™ therapy is completed in a single office visit using nitrous oxide (laughing gas) instead of general anesthesia. It works by delivering small amounts of thermal energy stored in water (steam) to the enlarged prostate. This process damages the cells causing the obstruction, thus reducing the overall size of the prostate and the classic symptoms of BPH: a weak stream, trouble starting and stopping urine flow, not emptying your bladder completely, urinating more often – especially at night, sudden urges to urinate, leaking or dribbling after you urinate, and straining to urinate. Dr. Meaglia has now done more than 150 Rezūm™ procedures.

For more information: www.rezum.com

UroLift®

UroLift® is another breakthrough treatment for BPH, an enlarged prostate. Unlike other treatments for BPH, the UroLift® surgical system directly opens the urethra without cutting, heating or removing prostate tissue. The key benefit to patients is the UroLift® procedure can restore urine flow while preserving sexual function and urinary control. UroLift® also has an advantage over previous BPH surgical treatments as it can be performed in-office with nitrous oxide (laughing gas) instead of general anesthesia. Patients experience a significant improvement in quality of life. The most common adverse effects reported include blood in the urine, burning during urination, urinary urgency, or pelvic

pain. Most symptoms were mild and resolved within two weeks.

OCUA Breakthrough: In 2015, **Dr. Jim Meaglia**, OCUA urologist/urologic surgeon, pioneered UroLift® in Orange County and has done more than 150 UroLift® procedures. **Dr. Karan Singh** also performs UroLift® cases. UroLift® uses tiny metal anchors (like staples) to compress the prostate gland, which reopens the urinary channel that runs through the middle of the prostate. Patients experience very rapid and durable relief.

For more information: www.urolift.com

Robotic Surgery

Robotic surgery is minimally invasive, precise surgery that offers patients faster recovery times and better outcomes. Robotic surgery provides surgeons with significantly better tools to perform their work. In the operating room, the surgeon sits at the da Vinci® system control console where he or she controls the instruments. Each movement of the robot instrument is modeled after the movement of the surgeon's hands. The da Vinci EndoWrist® feature allows for movements like a human wrist, giving the surgeon incredible freedom of motion. The superior visualization, dexterity, and precision that characterize robotic surgery have opened the door to increasingly complex procedures. Traditional open surgical procedures are performed through significant incisions, from 4 inches for prostatectomy, to more than 12 inches for kidney and bladder cancer surgeries. In contrast, laparoscopy is performed through several half-inch incisions. With robotic surgery, post-operative pain is decreased, and hospital stay and recovery are shortened. Traditional laparoscopy is generally limited to straightforward procedures. Using the robotic surgery platform, more complex surgeries can be performed laparoscopically.

OCUA Breakthrough: Robotic surgery was pioneered in Orange County by **Dr. Neyssan Tebyani**, who performed the first robotic surgery (a prostatectomy) in May 2008 at Mission Hospital, Mission Viejo. Since that time, OCUA's robotic surgeons – **Dr. Moses Kim, Ph.D., Dr. Tebyani, Dr. Don Bui, Dr. Daniel Su, Dr. Josh Randall, Dr. Fuad Elkhoury**, and **Dr. Patricia Mwesigwa**

– have performed more than 500 robotic surgeries. Their extensive training and experience in robotic surgery have made them leaders in their field. There are more than 3.1 million men in the U.S. who have been diagnosed with prostate cancer. It is the most common cancer among American men, affecting about one in nine. About half of these men undergo prostatectomy, and more than 80% of these cases are performed robotically. Patients choose robotic surgery over open prostatectomy because of lower transfusion rates, shorter convalescence, quicker recovery of urine control, and better preservation of sexual function. In addition to cancer surgeries, Orange County Urology physicians have performed many other da Vinci robotic surgeries such as: partial and total nephrectomy (kidney removal), complete cystectomy (complete removal of the bladder for bladder cancer), pyeloplasty (surgical reconstruction of the renal pelvis, a part of the kidney), ureteral reimplant, and sacrocolpopexy (a surgical technique for repairing pelvic organ prolapse).

For more information: <https://www.ocregister.com/2008/05/02/surgeon-performs-first-robotic-operation-at-mission-hospital/>

www.davincisurgery.com/procedures/urology-surgery/prostatectomy

www.davincisurgery.com/procedures/urology-surgery/kidney-surgery

Sacral Neuromodulation

Overactive bladder (OAB) affects about 33 million Americans. It's a health problem that can last for a long time if it's not treated. Many older men (30%) and women (40%) struggle with OAB symptoms. Overactive bladder is the name for a group of bladder symptoms. There are three main symptoms, according to the Urology Care Foundation:

- A feeling that you have to go to the bathroom, urgently.
- Occasional incontinence, which means that you leak urine with the "gotta go" feeling.
- Usually the need to go to the bathroom often (frequently), day and night.

With overactive bladder, you feel that you need

to empty your bladder – even when it’s not full. This leads to the feeling that you need a bathroom quickly, right now. You can’t control or ignore this feeling. Treatment often begins with conservative measures such as management of fluid and diet as well as timed voiding. Weight loss and pelvic floor exercises have also been shown to improve the symptoms of OAB. Once conservative measures fail, medications are offered as a second line of therapy. If medications fail, patients should seek medical attention from a specialist to see if they may be a candidate for a third line, or advanced therapy, for overactive bladder.

OCUA Breakthrough: Dr. Leah Nakamura has pioneered sacral neurostimulation at OCUA. The procedure was approved by the FDA for urge incontinence in 1997, and for urinary frequency and retention in 1999. The sacral nerves control the bladder’s ability to store and empty urine. The neurostimulator acts like a “bladder pacemaker” to send continual pulses of electricity to the sacral nerve, prompting the bladder to work properly. Although the exact mechanisms are not clear, neuromodulation is postulated to work by affecting the complex neural pathways and reflexes between the bladder and brain that control storage and emptying. This is an ideal therapy for patients with severe OAB who have failed medications or are unable to take them. Like all therapies for overactive bladder, this is not an absolute cure. The good news is that most medical studies on neuromodulation have shown a 60%–80% improvement in symptoms.

For more information: [https://www.urologyhealth.org/urologic-conditions/overactive-bladder-\(oab\)#Treatment](https://www.urologyhealth.org/urologic-conditions/overactive-bladder-(oab)#Treatment)

Telemedicine

Telemedicine is defined as the transfer of medical information from one site to another via electronic communications to improve a patient’s health condition. Telemedicine began 40 years ago when doctors connected, by telephone, with patients in remote areas who needed medical knowledge. Today the use of telemedicine is spreading rapidly using two-way video, hi-resolution video, email, smart phones, wireless tools and other forms of

telecommunication technology. Our practice believes that telemedicine will expand quickly to increase speed in seeing and treating patients.

OCUA Breakthrough: Dr. Aaron Spitz is pioneering telemedicine consults for Orange County Urology Associates. Dr. Spitz is a recognized national authority on telemedicine, serving as co-chairman of the Telemedicine Work Group for the American Urological Association (AUA). He is now doing 8–10 telemedicine consults a week with patients. Telemedicine now includes the transmission of still images, patient-physician consults using video conferencing, technology-enabled sharing of diagnostic test results, automated prescription refills, patient education, patient portals, and many other applications. Not all consults are appropriate for telemedicine, and all telemedicine activities must meet privacy and security rules of the Health Insurance Portability and Accountability Act of 1996 (HIPAA), which are a national set of encryption standards for protecting information. Telemedicine activities at OCUA include new patient visits, follow-up visits with patients, and emergency room consults with Hoag Hospital, which has a Telehealth telemedicine program. Benefits of telemedicine: reduced travel time for patients, less stress for patients, speed and quality of information shared; and high patient satisfaction.

For more information: www.aunet.org/guidelines/telemedicine-in-urology

Testicular Sperm Extraction (TESE)

In approximately 50% of couple infertility cases, the male partner is the cause in part or in whole. In the most severe cases the man may have no viable sperm in their semen to create a pregnancy. In the past, men with no sperm in their ejaculate (a condition called azoospermia) had no chance of becoming a father. But now, male fertility experts find that many so-called “infertile” men are still producing small amounts of sperm within the testes.

OCUA Breakthrough: In 2000 **Dr. Aaron Spitz** introduced a new sperm extraction procedure in Orange County called testicular microdissection. In up to 50% of these patients – many of whom

became infertile due to an illness such as mumps or after testicular cancer – Dr. Spitz can find and retrieve sperm in the testes. There are no imaging or other tests to help predict where the little pockets of sperm may be hiding in the testes. In the operating room under a high-power microscope, Dr. Spitz looks for areas that are producing sperm among the thin, seminiferous tubules. In most men, every tubule is making large amounts of sperm, but these men are making very small amounts. Yet in just one or a few healthy tubules, Dr. Spitz usually locates sperm. After the sperm is extracted, it is joined with an egg to produce an embryo, which is implanted in the female partner's womb through in vitro fertilization (IVF). Successful pregnancy is never a given, so the process may need to be repeated. In some cases, extra sperm can be frozen in liquid nitrogen for future use. Dr. Spitz also performs vasectomy reversal and other procedures to correct a host of issues that can cause a very low to non-existent sperm count, such as hormonal or environmental factors, varicocele, or blocked ejaculatory ducts.

For more information: www.urologyhealth.org/urologic-conditions/sperm-retrieval

Provenge®

Prostate cancer is the most common cancer among men in America. More than 3 million men in the United States are diagnosed with prostate cancer. Provenge® is the first and only FDA-approved, personalized (made from your own immune cells) immunotherapy for advanced prostate cancer (metastatic castrate-resistant prostate cancer [mCRPC]) in men who do not take prescription medicine for cancer-related pain. The National Comprehensive Cancer Network® (NCCN®) recommends sipuleucel-T (Provenge®) as a first-line treatment option for certain men with advanced prostate cancer (mCRPC). Provenge® is clinically proven to help extend life in certain men with advanced prostate cancer. Your immune system is your body's natural defense. Provenge® is designed to work with your immune system to seek out and attack your prostate cancer cells. By activating immune cells already in your body, Provenge® personalizes the fight against your prostate cancer.

OCUA Breakthrough: Dr. Daniel Su, OCUA urologist/urologic surgeon, pioneered Provenge® in Orange County. In fact, Orange County Urology Associates was one of the first sites in the world to offer Provenge® to patients with advanced prostate cancer.

For more information: www.provenge.com

UroNav®

The current methods of prostate cancer screening – prostate-specific antigen (PSA) tests and digital rectal exams (DRE) – are somewhat unreliable and can lead to many uncertainties for both patient and urologist. Prostate biopsy, the most reliable method of detection, is a challenge because of the difficulties in visualizing not only the entirety of the prostate, but also the location of the biopsy needle. Transrectal ultrasound-guided prostate biopsy (TRUS), the current biopsy standard, commonly suffers from poor image resolution, and the biopsy needle often passes through tumor-free areas of the prostate – potentially missing the tumor entirely.

OCUA Breakthrough: To overcome the limitations of current screening methods for prostate cancer, Philips developed UroNav®, an image-guided stereotactic biopsy system that improves the sensitivity and specificity of prostate biopsies. It reduces false negatives and speeds up diagnosis, which can make a life-saving difference to patients.

Dr. Daniel Su has pioneered the in-office UroNav® fusion biopsy system, which simultaneously displays registered MRI and ultrasound images and the projected needle path relative to the suspicious target lesion during the biopsy procedure and guides the urologist in real time. UroNav® brings the power of MRI to the urology suite as prostate and lesion segmentation data from radiology are quickly and easily transferred to UroNav® for review and target identification. This critical exchange of diagnostic information fosters enhanced collaboration between radiology and urology in the assessment and biopsy of suspicious prostate lesions.

For more information: www.invivocorp.com/solutions/prostate-solutions/uronav/

Viagra®

No other pill has generated more fanfare by men (and their partners) than the ED-conquering prescription drug Viagra® (sildenafil citrate tablets). Please note: We sell sildenafil (the active ingredient of Viagra®) in our offices. Pfizer's blue, diamond-shaped pill was the first oral medication approved to treat erectile dysfunction in the U.S. For tens of millions of men who suffer from impotence because of a myriad of medical conditions such as diabetes, Viagra® has given them a second chance of having a sex life. Viagra® works for men with erectile dysfunction (ED) by increasing blood flow to the penis so you can get and keep an erection hard enough for sex. Individual results may vary. It's been proven to help men with all degrees of ED. And you only take it when you need it. In clinical studies, Viagra® prescribed at 50 milligrams or 100 milligrams helped approximately 4 out of 5 men get and keep erections firm enough for sex. Viagra® usually starts to work within 30–60 minutes. The average time it takes to work is 27 minutes.

OCUA Breakthrough: Orange County Urology Associates physicians conducted exhaustive clinical trials of Viagra® that helped it gain FDA market approval in March 1998. The OCUA doctors who participated in the clinical trials were **Dr. Aaron Spitz**. Viagra® works by increasing the nitric oxide (NO) level in the corpus cavernosum of the penis. This leads to smooth muscle relaxation (vasodilation) and increased inflow of blood into the spongy tissue of the penis, causing an erection when you are sexually stimulated. You will not get an erection by just taking Viagra®. It works only when you are sexually stimulated. You may take it up to 4 hours before sexual activity. Other drugs that work by the same mechanism include Cialis® (tadalafil) and Levitra® (vardenafil). After using Viagra®, your erection should go away. Viagra® can cause serious side effects. The most serious is an erection that will not go down. In the rare event of an erection lasting more than 4 hours, go to an ER immediately to avoid permanent injury to your penis. When blood is trapped in the penis for 4 hours, this is an emergent condition called priapism. Emergency room physicians will take steps to drain the pooling

blood out of the penis before the damage becomes permanent. Other serious side effects can include sudden vision loss in one or both eyes, or sudden hearing decrease or hearing loss. Some people may get ringing in their ears. Report all these side effects to your doctor. Because this drug is so popular, many scammers sell counterfeit Viagra® on the net. Make sure that when you buy Viagra® online, you get real Viagra®. Many sites that claim to sell Viagra® are actually selling potentially dangerous counterfeits that may damage your penis. One way to safely buy online is to look for Verified Internet Pharmacy Practice Sites® (VIPPS®). A VIPPS® accreditation ensures the website you are purchasing from is secure and reliable.

For more information: www.viagra.com

XIAFLEX®

One of the most distressing conditions that can afflict a man is Peyronie's disease, a condition characterized by a curved penis that bends significantly to one side or the other, or is indented and shortened. This condition can result from a past injury during sex when the man injures one of the blood-filled chambers of his penis – typically from thrusting vigorously and missing the intended target. For most men there is not any obvious injury. Men with this condition suffer in silence and have a less than optimal sex life. But today many patients can achieve excellent results with a breakthrough treatment called XIAFLEX®.

OCUA Breakthrough: Dr. Aaron Spitz pioneered the use of XIAFLEX® in Orange County in 2012. XIAFLEX® is approved for the treatment of adult men with Peyronie's disease with a palpable plaque and curvature deformity of at least 30 degrees at the start of therapy. XIAFLEX® is administered in a series of treatments. XIAFLEX® is administered into the plaque that is causing the penis to curve. After treatments are complete, you will be asked to return to the office for a procedure that will stretch and help straighten your penis. Then for the following six weeks, you will be asked to do some gentle penis stretching and straightening exercises (some in the flaccid stage, others in the erect state) to aid in your recovery. These self-help physical therapy exercises

reinforce your penis-straightening treatment.

For more information: www.AskAboutTheCurve.com

Male Reconstruction

Male genitourinary reconstruction is a small, but burgeoning field within urology. Reconstructive surgeons spend an additional year training through a fellowship accredited by the Society of Genitourinary Reconstructive Surgeons (GURS) to handle complex cases involving urethral strictures, Peyronie's disease, erectile dysfunction, urinary incontinence, and buried penis, among many other things.

One of the most unique surgeries that reconstructive urologists perform is called a urethroplasty. It has a higher long-term success rate for repair of urethral strictures compared to endoscopic methods such as urethral dilation.

OCUA Breakthrough: In 2019, **Dr. Tammy Ho** was the first fellowship-trained male reconstructive urologist to perform urethroplasties at several Orange County hospitals including Orange Coast Memorial, Hoag Irvine, and Hoag Newport. There are two main ways to repair a urethral stricture: either meticulously cutting out the scar tissue and sewing together the healthy urethra, or harvesting a graft from inside the cheek to augment the narrowed urethra. Dr. Ho performs a full evaluation to tailor her approach to every patient's stricture depending on its length, location, and other qualities.

Robotic Prostatectomy

OCUA Breakthrough: On Feb. 27, 2020, **Dr. Moses Kim, M.D., Ph.D.**, became the first urologist in Southern California to perform a robotic prostatectomy for the treatment of prostate cancer, using the new da Vinci® single port (SP) system, a cutting-edge robotic-assisted technology that few hospitals in the world have yet acquired. The procedure was performed at Hoag Hospital Irvine. "Single port" means that only one small incision is needed to insert all the tiny tools necessary to remove part or all of a person's prostate. Previously, five incisions were needed for laparoscopic prostatectomies. "We have the privilege of being one of the first hospitals in the nation to obtain this fourth-generation robotic tool that allows us to perform ever more precise surgeries with less stress on the patient's body," said Dr. Kim, President of Orange County Urology Associates and Chair of Urology at Hoag. "This is another example of how Hoag is a leader in the field of robotic surgery."

The doctors at Orange County Urology Associates are committed to providing you with the latest, least invasive, and most effective therapies to treat urological conditions. To schedule an appointment, call us at **(949) 855-1101** or visit our website at www.OrangeCountyUrology.com



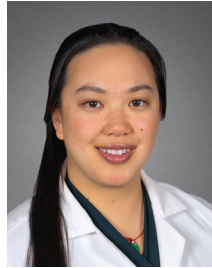
The Urology Leaders of Orange County



Don T. Bui, M.D.



Fuad F. Elkhoury, M.D.



Tammy S. Ho, M.D.



Moses Kim, M.D., Ph.D.



James P. Meaglia, M.D.



Leah Nakamura, M.D.



Josh Randall, M.D.



Poone Shoureshi, MD



Karan J. Singh, M.D.



Aaron Spitz, M.D.



Daniel Su, M.D.



Neyssan Tebyani, M.D.

As one of California's largest and most skilled urology group practices, Orange County Urology Associates (OCUA) frequently accepts referrals from other physicians and group practices for specialized urologic treatments.

If you have a patient who requires the care of a specialist, please contact our dedicated staff at: **(949) 855-1101**. To learn the latest about OCUA, visit our website at: OrangeCountyUrology.com

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