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## **UCI Medical Center Department of Urology**

101 THE CITY DRIVE SOUTH ORANGE, CA 92868-5395



NEWSLETTER

## Re-United: The facts about vasectomy reversal

"When a man consents to undergo a vasectomy, he is usually instructed that the procedure should be considered to be permanent and irreversible.... Nonetheless, even the most insightful, thoughtful decision can ultimately prove wrong. When that decision is a vasectomy, a man may still change his mind."

re you considering a vasectomy reversal? Thousands of men undergo vasectomy each year as a permanent means of birth control, yet for some of these men life brings unexpected turns, which leads them to change their mind. For some, there is a strong desire to have another child a few years later. For others, there may be a tragic loss of a child. For many men, a new marriage brings a new opportunity for creating a family. Regardless of the circumstances, a vasectomy can be reversed.

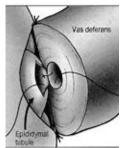
When a man consents to undergo a vasectomy, he is usually instructed that the procedure should be considered to be permanent and irreversible. This is an appropriate admonishment, because a vasectomy reversal is not 100% guaranteed to work, and it is a significantly more complex operation than a vasec-

tomy. Therefore, before undergoing a vasectomy, a man should be as sure as possible that he is finished having children. Nonetheless, even the most insightful, thoughtful decision can ultimately prove wrong. When that decision is a vasectomy, a man may still change his mind.

#### What is a vasectomy?

To understand the vasectomy reversal, it is important to understand the vasectomy. A vasectomy is the surgical removal of a small piece of the vas deferens. The vas deferens is the long narrow muscular tube through which





**Epididymo-vasostomy** 

sperm travel from the testicle to the urethra. It feels like a piece of undercooked spaghetti in each side of the scrotum. The sperm are produced in the testicle, and then they exit out the top of the testicle and into the epididymis. The epididymis is a very tiny, tightly coiled tubule, which runs along the back of the testicle from top to bottom.

"When a vasectomy is performed, the doctor feels for these "pieces of spaghetti," and surgically removes a small segment of vas deferens from each side. The cut ends are then clipped, sutured or cauterized."

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It then turns a corner, heading back north towards the pelvis, and becomes the thicker, straighter vas deferens. During ejaculation, the muscular walls of the vas deferens tube contract to propel the sperm up to the urethra of the prostate. In the urethra, the sperm are then joined by fluids from the prostate and then ejaculated out of the penis.

When a vasectomy is performed, the doctor feels for these "pieces of spaghetti" and surgically removes a small segment of vas deferens from each side. The cut ends are then clipped, sutured or cauterized. Suddenly, the sperm can go no further than this new point of blockage.

### So what happens to all the sperm?

What most men don't realize is that once the vasectomy is performed, sperm production does not stop! Ever! Unlike women, men produce their gametes (sperm) for their entire life. A vasectomy does not stop sperm production, rather it simply blocks the entry of sperm into the urethra. Like other cells, the blocked sperm are eventually broken down by the body and reab-

### **Technique of vasectomy reversal:**

A vasectomy reversal is the rejoining of the blocked tubes. In cases where there is no excess pressure build up and no epididymal blow out has occurred, the vas deferens can be rejoined to the vas deferens. This is called a vaso-vasostomy. The surgery is technically challenging, and it is performed with an operating microscope utilizing sutures which are finer than a human hair. The vas deferens is usually reconnected with two layers (inner lumen and outer surface). In cases where there has been



an epididymal blow out, the vas deferens north of the vasectomy scar must be rejoined with the epididymal tube (tiny and tightly coiled) south of the blow out scar. This procedure is called a vaso-epididymostomy. This surgery is even more technically challenging than a vaso-vasostomy and should only be performed by a microsurgeon expe-

## Like other cells, the blocked sperm are eventually broken down by the body and reabsorbed.

sorbed. New sperm are continually being produced. A variable amount of pressure can build up in the tubes behind the vasectomy scar. In some cases, so much pressure builds up that the tiny tubule of the epididymis can rupture. This is commonly referred to as an epididymal "blow out." If this happens, the site of the blow out develops scar tissue, and this actually becomes the new level of blockage to the sperm. This is neither painful or dangerous, but it is significant in that for a vasectomy reversal to be successful, it must be performed in such a way that bypasses this new level of blockage at the epididymal blow out site.

rienced with this procedure. An epididymal blow out is diagnosed during surgery by examining the fluid from the cut end of the vas deferens under a microscope. Because an epididymal blow out cannot be accurately diagnosed until the time of surgery, it is important for the patient to select a surgeon ahead of time who can perform this procedure.

Vasectomy reversal is typically performed with general anesthesia, and the patient goes home the same day. The recovery is typically rapid, but only light duty work and refraining from heavy exercise or sex is recommended for the first two to three weeks.

#### Success rates:

Success rates for vasectomy reversal are surprisingly good. A variety of factors determine the outcome for an individual patient. In cases where there is no epididymal blow out, the fluid from the cut end of the vas deferens has motile sperm, the time interval since vasectomy is moderate (less than 10 years), and the procedure is performed by a skilled microsurgeon, success rates approach 95%. If the time interval is greater than 15 years, the success rate is about 75%. In cases where vaso-epididymostomy is required, the success rates are closer to 75%. Success, in this case, is defined as restoration of sperm to the ejaculate. Actual pregnancy rates are less: 75% for vaso-vasostomy and about 40% for vaso-epididymostomy. The lowered pregnancy rates are due to a variety of biological variables including female infertility factors as well as a 15% incidence of clinically significant antisperm antibodies.

#### **Alternatives:**

An alternative to vasectomy reversal is minimally invasive sperm retrieval. This sperm cannot be used for artificial insemination. It must be injected directly into the woman's eggs (Intracytoplasmic Sperm Injection-ICSI) as part of an in-vitro fertility (IVF) cycle. This alternative is more appropriate for some couples. In cases where there is no female infertility factor and the time since vasectomy is less than 15 years, vasectomy reversal is clearly recommended over sperm retrieval with IVF/ICSI by both the American Society for Reproductive Medicine and the American Urological Association.

Dr. Aaron Spitz is the author of several peer reviewed articles and book chapters regarding the treatment of male infertility. He is a board certified urologist, specialty fellowship-trained in microsurgery and male infertility, Baylor College of Medicine, Houston, Texas.

For appointments and referrals, please call: 714-456-8573

## Kudos to Dr. Regina Hovey and Moon-Ja Yunouye

Urology residency training program receives highest rating: Full 5-year accreditation

The Department of Urology is pleased to announce that the Residency Review Committee (RRC) has accredited the residency training program for the next five years. This is the maximum duration for RRC residency program accreditation before re-review. The program now accepts two residents per year in the 5-year training program.



**Department of Urology Residents** 



Ralph V. Clayman, MD, Professor and Chair of the Department of Urology and Julie Limfueco, RN, Administrative Nurse Manager



# Center for Urological Care Receives Award

he UCI Medical Center Associates recently provided a \$4,200 grant award to the Department of Urology's Center for Urological Care. Acknowledging receipt of the grant is, pictured above, Dr. Ralph V. Clayman, Professor and Chair of the Department of Urology, and Ms. Julie Limfueco, RN, Administrative Nurse Manager for the Center for Urological Care and Professional Surgical Practices.

The Associates is a volunteer organization dedicated to supporting UCI Medical Center's mission of patient care, education and research. The grant funds were used to purchase a music system for the Center for Urological Care's new waiting room in order to make it more pleasing to patients and their families. In addition to serving urological patients, the new waiting room also serves patients for dermatology, pain management, pulmonary, general surgery, trauma, vascular surgery, cardiothoracic surgery, and renal transplant services.

On behalf of all the surgical specialties using the new Pavilion III suite, the Department of Urology and the Center for Urological Care wishes to thank the members of The Associates for their kind and generous award. The Center opened in its new Pavilion III facilities on the UCI Medical Center campus in July, 2005. The Center for Urological Care is the largest, most well-equipped, urology facility available in Orange County.



## Pacific Rim Robotics International Symposium

A <u>first</u> of its kind, hosted by five departments from the UC Irvine School of Medicine

The Pacific Rim Robotics International Symposium, a first of its kind, sevenday symposium, was held at the Hyatt Regency in Anaheim January 5-7, 2006, drawing over 300 participants from 30 states and 13 countries. It provided in-depth didactic sessions on the impact of robotic surgery in five specialty areas and featured broadcast live robotic surgeries from across the country and Japan in the specialties of urology, general surgery, gynecology, neurosurgery and cardiothoracic surgery. In addition, hands-on training courses at UCI Medical Center's Astellas Center for Urological Education using three robotic da Vinci® Surgical Systems, were held January 4-5 and January 8-10. A special one-day session featured an Advanced Robotic Techniques (ART) course in robotassisted laparoscopic prostatectomy held on January 5, 2006.

Elspeth M. McDougall, MD Co-Director of the Pacific Rim Robotics International Symposium

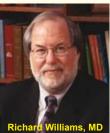
## To friends of the Department of Urology - Many thanks for your support!

As a result of your generous support, the Department of Urology provides educational programs to benefit our residents, fellows, and our urological colleagues in the community. Your support provided for two major visiting professorships in 2005.

This past July 7-9, 2005, your contributions allowed us to host Dr. Steven A. Kaplan, Professor of Urology at Weill Cornell Medical College and Chief, Institute of Bladder and Prostate Health at New York Presbyterian Hospital. This three-day, visiting professorship training program included lectures and a hands-on laboratory experience in the PVP or Photo-Selective Vaporization procedure using the Green-Light PV laser system for the treatment of benign prostatic hyperplasia. Dr. Kaplan is a recognized authority on the study of benign diseases of the prostate and female urology. He has published more than 360



articles and 100 abstracts and has made over 245 presentations in more than 35 countries.



On **December 1-3, 2005**, the Department of Urology had the pleasure of hosting **Dr. Richard D. Williams**, Rubin H. Flocks Chair, Professor and Head, Department of Urology, University of Iowa, Iowa City, as the 2005 John W. Posey Lecturer. During his three-day, visiting professorship, he provided lectures and a hands-on laboratory experience to the urology residents in a cadaveric surgical teaching lab on the instruction and training of anatomy and techniques of a variety of intraabdominal and pelvic oncologic surgical procedures including radical prostatectomy, radical cystectomy, and urinary diver-

sion. Dr. Williams' area of research interest is urologic oncology, especially renal and prostate cancer. He has published over 200 journal articles and book chapters. Dr. Williams is past Chair of the Research Council for the American Urological Association and has been a member of the Advisory Council for the National Institute of Diabetes and Digestive and Kidney Diseases (NIDDK) at NIH.

All contributions to the Department of Urology are greatly appreciated. Contributions by check should be made payable to:

### The UCI Foundation

For further information, please contact - Ralph V. Clayman, MD, Professor and Chair Department of Urology at 714-456-6782.

Your donation may be mailed to -

Ralph V. Clayman, MD UCI Medical Center / Department of Urology Bldg 55, Room 304 101 The City Drive Orange, CA 92868

"It is our desire to train the very best urologists in the country. To be sure, the support of the Orange County community in this endeavor is essential." Ralph V. Clayman, MD, Professor and Chair



### Allan M. Shanberg, MD Chair in Pediatric Urology

With your support, we're finding new solutions to heal patients through ongoing research in minimally invasive surgery.

Allan M. Shanberg, MD

### Dear Friends:

Children with urologic abnormalities are among the most underserved patients in Orange County. The reason for this is twofold. First, there is a "manpower" issue with regard to the hiring of fellowship-trained pediatric urologists, and second is the availability of the financial resources necessary to attract and maintain these physicians within our community. Indeed at this point in time, there are only four urologic surgeons in all of Orange County who devote the majority of their time to pediatric urology and only one fellowship-trained urologist whose practice is 100% committed to the care of our children.

As such, I have made it a primary goal for the UCI Department of Urology over the next year to establish as the first endowed chair in the Department of Urology, a Chair in Pediatric Urology. An endowed Chair in Pediatric Urology would greatly enhance our ability to attract and maintain a fellowship-trained pediatric urologist. For this chair, I would seek to honor Dr. Allan Shanberg, who was among the first urologists in Orange County to specialize in pediatric urology and who has served our community in this regard longer than any urologist in our community.

A million dollars is necessary to endow a chair in the medical school at the University of California, Irvine. To date, we have been successful in raising close to \$200,000, still far short of the needed amount. As such, your contributions to this important project are truly invaluable. Gifts of all amounts are greatly appreciated and acknowledged. The possibility of a large donation, which would complete the chair, would carry with it the opportunity to also name the chair in honor of the donor.

In addition, as of January 1, 2006, the Department of Urology has initiated a Centurion Club to aid with the development and direction of our urology program. Members of this group have pledged \$10,000 in support of the educational and research goals of the department. The driving force behind establishing this group of individuals is to obtain 100 members thereby assuring the realization of the Chair in Pediatric Urology. This group of individuals will also be invited to participate in the ongoing and future direction of the Department of Urology, as we seek to realize our goals of bringing the very best patient care to the Orange County community coupled with superb research contributions and outstanding educational opportunities for our residents, medical students, fellow community urologists, and the public.

It is my sincere hope that the creation of a Chair in Pediatric Urology will be realized by the end of this year. Again, I am very thankful for all help in this regard and believe that the overall beneficiaries of your generosity will be all of our children. Many thanks for your thoughtful consideration.

Yours sincerely,

Ralph V. Clayman, MD Professor and Chair Department of Urology



Addendum: A naming opportunity for an endowed Chair in Pediatric Urology is available. Please contact me directly should you be interested in this major form of life-long recognition. Telephone: 714-456-6782 or e-mail: rclayman@uci.edu



# **Urological Conditions**

Among the many conditions treated at the Center for Urological Care are:

- Bladder control problems, especially those due to neurological conditions
- Cancer of the bladder, kidney, prostate, testicle and urethra
- Enlarged prostate gland
- Male and female incontinence
- Kidney problems, including stones and obstructions
- Varicocele
- Vasectomies and vasectomy reversals
- Urinary tract infections
- Male infertility
- Male sexual problems
- Interstitial cystitis
- Voiding problems
- Urethral stricture

## Center for Urological Care

### **UCI Medical Center**

The Center for Urological Care at UCI Medical Center promises to simplify life for patients concerned with problems ranging from urinary incontinence to prostate cancer and kidney disease.

The center's medical staff includes some of the most respected male and female urologists in the nation. They provide a one-stop opportunity for patients to receive outstanding urologic care in a private, patient-friendly setting. "Medical care can be fragmented these days," says **Dr. Ralph Clayman**, chairman of the UCI Department of Urology. "The new center brings together all outpatient urological testing and treatment under one roof. This strategy provides doctors with the ability to conduct necessary tests, including biopsies, without delay. It also allows them to perform urgent procedures at the time of a patient's initial visit, if needed."

Designed with comfort and convenience in mind, the center incorporates several aesthetic features to put visitors at ease. There's even a coffee bar with lattes and frappaccinos just outside the front door - a welcomed bonus for waiting family members.

But inside, state-of-the-art care is the order of the day. There are ten exam rooms, two recovery rooms and six procedure rooms -- each equipped for specific types of urological treatments, including minor surgery and imaging studies. Leading-edge diagnostic capabilities are evident everywhere, including a portable X-ray scanner and top-of-the-line ultrasound machine.

The hospital's picture archiving and communication (PAC) system makes it possible to transmit each patient's CT, ultrasound and X-ray images to a built-in computer incorporated into every exam room. There, the patient and doctor can view test results and discuss findings in complete privacy. If a consultation with a UCI physician from another specialty is necessary, the PAC system can connect the physicians and provide the patient's images within minutes.

Convenient care -- "The Center for Urological Care is an important resource," says Clayman. "It will make it infinitely easier for patients to obtain the latest in urological care from renowned experts in the field." For appointments call 714-456-7005.



### **UCI Medical Center - Department of Urology Clinical Faculty**

Ralph V. Clayman, MD **Professor and Chairman** Department of Urology

Dr. Clayman is world renowned for his clinical and laboratory work in minimally invasive surgery. He specializes in the treatment of kidney stones, kidney cancer, strictures of the ureter and all other aspects of renal and

### For Appointments and Referrals, please call: 714-456-3418



Thomas E. Ahlering, MD

Professor and Director, Urological Oncology

Dr. Ahlering is well known for laparoscopic radical prostatectomy using the da Vinci® robotic surgical system. He specializes in treatments for cancer of the prostate, bladder, kidney, and

testis. He did his postgraduate fellowship training in Urological Oncology at University of Southern California, Los Angeles.

### For Appointments and Referrals, please call: 714-456-6068



Barry P. Duel, MD, FAAP, FACS

Associate Clinical Professor, Pediatric Urology

Dr. Duel specializes exclusively in the urologic care of children. His clinical interests include reconstruction of complex

anomalies and pediatric minimally invasive surgery. He did his postgraduate fellowship training in Pediatric Urology at Children's Hospital of Michigan in Detroit

### For Appointments and Referrals, please call: 714-456-2944



Joel Gelman, MD

**Assistant Clinical Professor** 

Director, Center for Reconstructive Urology Dr. Gelman has expertise in male urethral and genital recon-

struction and sexual dysfunction. He did his postgraduate fellowship training in Adult and Pediatric GU Reconstruction at Eastern Virginia Medical Center, Norfolk, Virginia.

### For Appointments and Referrals, please call: 562-421-2111



Regina M. Hovey, MD

**Associate Clinical Professor** Director, Urology Residency Program

Dr. Hovey specializes in female urology, urinary incontinence,

neurourology, and lower urinary tract reconstruction. She did her postgraduate fellowship training in Female Urology, Neurourology and Reconstructive Urology at University of California, Davis.

For Appointments and Referrals, please call: 714-456-7128



Jerry B. Miller, MD

Clinical Professor

Dr. Miller specializes in general practice urology and supervises residents-in-training in the general urology clinic.

For Appointments and Referrals, please call: 714-456-7005



### Elspeth M. McDougall, MD, FRCSC

Professor and Director of the Astellas Center for Urological

Dr. McDougall specializes in minimally invasive surgery for the treatment of kidney stones, kidney cancer and strictures of the

ureter. She did her postgraduate fellowship training in Endourology and Extracorporeal Shock Wave Lithotripsy at Washington University Medical School, Barnes Hospital, St. Louis, Missouri.

For Appointments and Referrals, please call: 714-456-7005



David K. Ornstein, MD

Assistant Professor

Dr. Ornstein completed a fellowship in urologic oncology at the National Cancer Institute. He now treats patients with all types

of urologic cancers. He has extensive experience with open, laparoscopic, and robotic surgery, and is particularly interested in potency and continence-sparing radical prostatectomy using the da Vinci® Surgical Robot.

### For Appointments and Referrals, please call: 714-456-5378



### Leland Ronningen, MD

Associate Clinical Professor

Dr. Ronningen is particularly interested in benign diseases of the prostate and practices general urology.

For Appointments and Referrals, please call: 714-456-7005



Allan M. Shanberg, MD, FACS, FAAP

Clinical Professor

Director of the Antoci Center for Pediatric Urology Co-Director of the Astellas Center for Urological Education

Dr. Shanberg directs UCI Medical Center's Antoci Family Center for the treatment of pediatric kidney disorders and diseases of the genitourinary system. He pioneered the use of lasers in Urology. He is also well known for his work with adult laparoscopic renal and bladder surgery.

For Appointments and Referrals, please call: 714-456-8900



Anne R. Simoneau, MD

**Associate Clinical Professor** Assistant Director, Urological Oncology

Dr. Simoneau has clinical trials in prostate cancer prevention and is working in the laboratory on bladder cancer prevention.

She did her postgraduate fellowship training in Clinical Urological Oncology at University of Southern California, Los Angeles.

For Prostate Cancer Prevention, please call: 888-456-7067 or 714-456-6485



### Aaron Spitz, MD

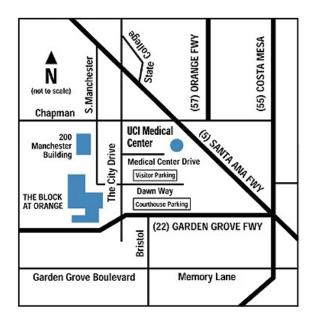
**Assistant Clinical Professor** 

Male Reproductive Medicine and Surgery

Dr. Spitz has expertise in the treatment of male infertility and sexual dysfunction. He did his fellowship training at Baylor College of Medicine, Houston, Texas.

For Appointments and Referrals, please call: 714-456-8573

### University of California, Irvine Medical Center 101 The City Drive South -- Orange, CA 92868



### **Driving Directions to UCI Medical Center --**

From I-5 take the Chapman Avenue exit. Drive westbound on Chapman. Turn left (south) onto The City Drive. Proceed to Dawn Way. Turn left. The UCI Medical Center visitor parking structure is on the left side.



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