

UC San Diego Health



SUPPORTING KIDNEY STONE CARE


THE COMPREHENSIVE KIDNEY STONE CLINIC AT UC SAN DIEGO HEALTH



YOUR SUPPORT IS CRITICAL

Whether you are already a patient of ours or are someone who is looking for answers about stone disease, thank you for spending some time with the Comprehensive Kidney Stone Clinic at UC San Diego Health. Now more than ever we have the tools to understand and treat stone disease.

We hope you find this overview of our clinic useful — and that you'll consider how you can partner with us to advance care for kidney stones in innovative and exciting ways.



WHY IS CARE FOR KIDNEY STONES IMPORTANT?

Stone disease is common and affects many people. An acute attack can be one of the most painful experiences many people ever have, in addition to signaling you have a high likelihood of recurrence.

We are working to better understand risk factors for stone formation as well as ways to prevent recurrence of future stones. As the only academic health system in San Diego County, we have the privilege of taking care of thousands of patients across all spectrums of stone disease severity and background. We also work with our community partners to deliver care, collaborating widely with everyone from the largest hospital systems to rural physicians to provide specialized expertise on the complexities of stone disease. This allows us to provide world-class care to patients across the county in a clinical practice that informs research into pressing questions about stone disease.

Stone disease often requires one or multiple surgeries that can have a significant impact on a person's quality of life.

At UC San Diego Health, we are working to improve surgical techniques and procedures with the goal of optimizing operative care and delivering the most effective and safe surgeries. We are always innovating, producing new ideas, and using the latest technology to advance the field and deliver the best surgical care. In addition, we are studying ways to minimize — or eliminate — the use of narcotics after surgery. We aim to

improve not only the surgery itself, but also the decision-making process of who needs surgery. A new research project is studying the use of artificial intelligence (AI) to measure stones and better predict surgical needs.

Stone disease can last a lifetime.

Above treating an acute episode of pain from a kidney stone — and beyond treatment and prevention — having stone disease is a long-term condition. Innovation in all aspects of stone disease will benefit not just people with new cases of stone disease, but also those who have already faced a kidney stone episode. Our goal is to study the various aspects of stone disease (acute painful episodes, surgery and long-term preventive management) and how they affect quality of life so that we can support healthy, happy lives for people with kidney stones.

OUR EXPERTS



Manoj Monga, MD, FACS

Chair, Department of Urology

Joseph D. Schmidt, MD Presidential Chair in Urology

Professor of Urology



Seth K. Bechis, MD, MS

Assistant Program Director

UC San Diego-Kaiser Endourology Fellowship

Associate Professor of Urology



Roger L. Sur, MD

Founder and Director

Comprehensive Kidney Stone Center

Program Director

UC San Diego-Kaiser Endourology Fellowship

Professor of Urology

YOUR SUPPORT MATTERS

UC San Diego Health is one of the United States' leading academic health systems. Our campus is rich with opportunities for collaborative research — with partnerships that span departments, as well as institutions and industries across our region. This provides a nurturing environment that fosters innovative solutions for significant health challenges like stone disease.

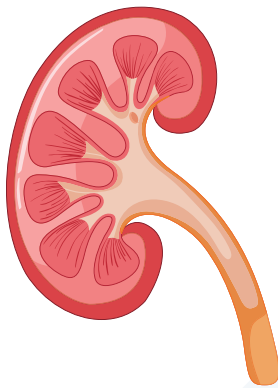


Figure 1.
Healthy kidney

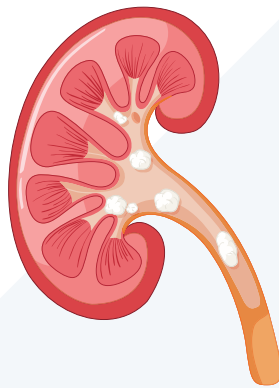


Figure 2.
Kidney with stones



We aim to grow the Comprehensive Kidney Stone Center at UC San Diego Health to attract visiting scholars and physicians, foster collaboration and sharing of ideas, and train future physicians and researchers who can sustain and continue our progress. In order to drive quality results, we must hire successful researchers and give them the resources they need to pursue novel solutions. But to achieve this, we need philanthropic partners — forward-thinking donors who see UC San Diego Health's excellence and want to support its continued growth.

Our donors are as much a part of the team as our researchers, physicians and staff. Your generosity allows us to support our community and our world through transformative research, education and training, and patient care.

FAQS

WHAT ARE COMMON RISK FACTORS FOR KIDNEY STONES?

There are many risk factors for kidney stones. In one of our recent studies sponsored by NASA, 85% of kidney stone risk could be attributed to genetics.

This study also found that exercising on a special treadmill could decrease stone risk for astronauts. Our experts have linked kidney stones to a variety of inflammatory diseases such as arthritis, inflammatory bowel disease and asthma, and are evaluating the impact of the microbiome on kidney stone risk. Our team was the first to demonstrate a link between stress and stones, and we are studying racial and socioeconomic factors to try to identify traits that may affect the quality of health care related to stone disease.

HOW CAN STONES BE PREVENTED?

We have carefully analyzed the impact of both diet and medications on the risk of kidney stone disease. Some of our findings have helped develop guidelines that are now used around the world. The majority of patients have some dietary habits that can be addressed to decrease the risk of stones — more than 80 percent of patients can correct these issues without medication.

RESEARCH

Research is what drives care forward and we are one of the top-10 research institutions in the country. We seek to develop, build and maintain databases related to stone disease outcomes, as well as hire the support staff needed to maintain those databases (e.g., coordinators, database managers, statisticians).

Having these resources will enable us to harness the massive data available as we develop scientifically rigorous studies that open up new pathways to treat stone disease.

A tissue repository for samples from blood, urine, kidney tissue and stones will allow our leading-edge physician-scientists to study biomarkers and develop genetic tests to identify the molecular pathways of stone disease. In addition, we are eager to establish a bioengineering lab that can develop and test new devices used in urologic stone surgery (e.g., lasers, scopes, stone graspers and vacuum removal devices).

EDUCATION/TRAINING

Support for training opportunities will introduce future leaders in the field of stone disease and give physicians needed time to perform scholarly activities and academic

pursuits. Further, funding will help provide “protected time” for our physician-scientists to design and implement research protocols, collaborate with experts in other fields, interact with industry, and engage with national and international leaders in the urological field. It will enable our physicians time to use their expertise to innovate and make discoveries to advance the field.

PATIENT CARE DELIVERY

Developing systems in our electronic medical record to track data, providing resources for patient education, hiring educators and staff, developing patient information materials, and employing decision-making tools both in-person with patients and remotely during video visits will empower our physicians to provide the very best compassionate care

Research in kidney stone disease has been historically underfunded compared to other diseases such as cancer. As a result, there are few major centers in the country focused specifically on kidney stone disease. With your help, UC San Diego is poised to become one of these.

HOW CAN SURGERY BE AVOIDED?

We have conducted randomized prospective studies to evaluate the ability of certain medications to help facilitate stone passage. We have also explored novel ways to control pain associated with stone passage that can help minimize the need for opioid medications. By analyzing many factors through imaging, clinical presentation, lab work and other tools, we can often predict whether a stone will pass by itself — and whether or not you should choose to have surgery.

HOW CAN SURGERIES BE MORE SUCCESSFUL AND MORE COMFORTABLE?

Answering this question has been one of the primary goals of our work. We have pioneered the expanded use of “tubeless” surgery for people with larger kidney stones and helped identify which types of patients are best suited for shockwave therapy as opposed to endoscopy. We also developed and patented novel devices to improve outcomes and patient experience, in addition to exploring

the use of information technology and data to facilitate better patient care and communication.

Innovations such as the ones we have made to answer these questions, and many others, about kidney stones are critical to caring for our community. But we can't do it without you.

YOUR PHILANTHROPY CAN PROVIDE VITAL RESOURCES

TIME FOR RESEARCH

Time to work on current theories. Time to collaborate with others. Time to perform studies and share what we learn. Having protected time is central to accomplishing our goals. Patrick Walsh, MD, a famous prostate cancer pioneer, once said, "make certain you are given time to focus on research."

But dedicated time is no longer a given in today's health care environment. Given this new dynamic, philanthropy enables us to find time. With your help, we can follow the science, innovate and test novel treatments, and make new discoveries to benefit all.

DATA SUPPORT

A constant refrain from leaders in this field is that we must have databases and high quality data. Data goes in and answers come out — it is that simple. But without data, there are no answers. Establishing good databases with detail, accuracy and accessibility requires expertise in design and data entry, in addition to significant investments in information technology.

We have the opportunity to leverage our clinical expertise and volume as the busiest stone center in the UC Health system to transform kidney stone care through better data use. We seek to recruit additional experts who can join us in leveraging the power of data to its maximum potential.

SCIENTIFIC LEADERS

Clinicians are only able to transform care if they have research partners at their side. Even physician-scientists, formally trained in research, can benefit from collaborating with basic scientists. Their formal training in research of fundamental concepts goes beyond what physicians can do — whether conducting laboratory research or overseeing clinical trials, these individuals are the backbone of any productive research enterprise. We seek to establish a formal structure for our team that brings together scientists and clinicians to find answers to clinical questions and translate scientific discoveries into better care.

Thank you for your consideration. Your partnership empowers our world-class faculty to provide leading-edge care and advance novel research that can transform kidney stone treatment for individuals across our region and around the world.





At the University of California San Diego, visionary donors help us unleash a diverse community of doers: those who imagine unexpected answers that can transform humanity for the better. Together, we foster bold scholars, researchers, healers, entrepreneurs and creators — because here, breaking new ground is the norm. Every scholar can become a changemaker. Every risk-taker can create a ripple effect. Every optimist can uncover a life-altering cure. Every person can change the world. **Because people are the point.**

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UC San Diego Health

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