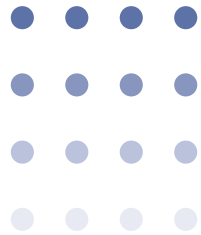


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# CONSULTS

NEWS FOR PHYSICIANS FROM THE UCONN HEALTH CENTER



## Deep Brain Stimulation A high tech option for patients with movement disorders



### PHYSICIAN DIRECTORY

With more than 450 physicians, UConn has the largest multi-specialty group in central Connecticut. We cover virtually every specialty and subspecialty in health care.

Detailed, up-to-date information about our specialists is available in our online physician directory at [uconndocs.uhc.edu](http://uconndocs.uhc.edu).



**Patrick Senatus, M.D., Ph.D.**

**Deep brain stimulation (DBS) is fast becoming the treatment of choice for patients with intractable Parkinson's disease, dystonia, and essential tremor.**

Furthermore, it has recently been approved by the FDA for humanitarian device exemption in the treatment of obsessive compulsive disorder, and is being evaluated for the treatment of other conditions such as major depressive disorder, Tourette's syndrome, and chronic pain.

"Deep brain stimulation is an excellent treatment option for patients who no longer adequately respond to first-line measures such as medications and physical therapy, or when the side effects of those treatments become too severe," says Patrick Senatus, M.D.,

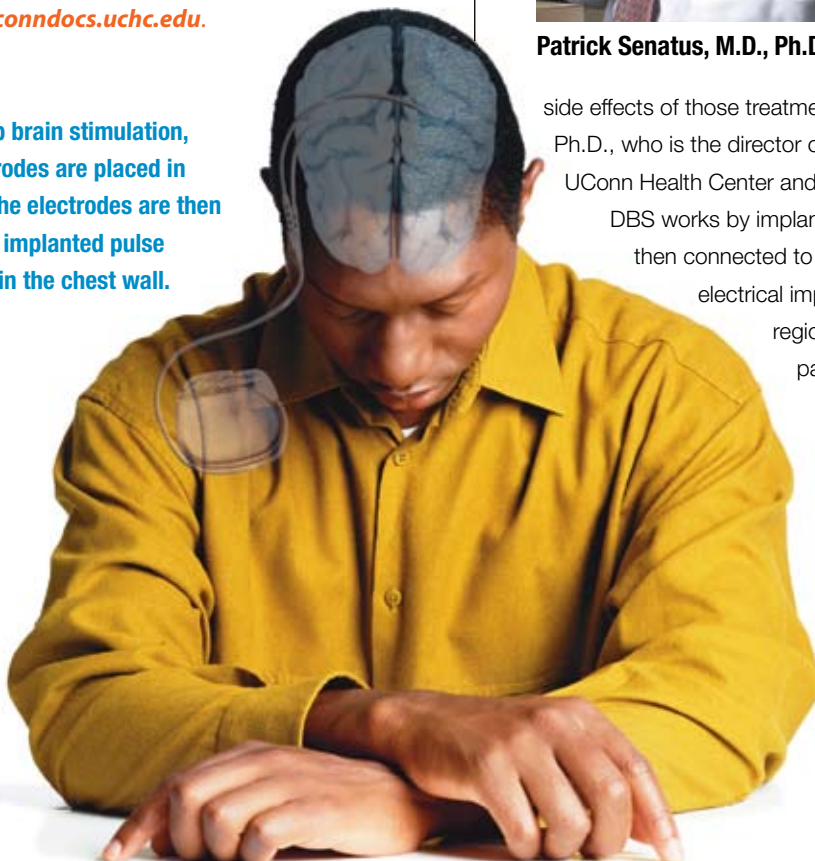
Ph.D., who is the director of Functional and Restorative Neurosurgery at the UConn Health Center and is fellowship trained in DBS and neuromodulation.

DBS works by implanting electrodes into selected brain nuclei, which are then connected to implantable pulse generators. The system delivers electrical impulses that can modulate the function of the targeted region.

The implanted pulse generators (IPG), or "brain pacemakers," are surgically implanted in the chest wall of the patient. Physicians are subsequently able to set parameters magnetically through a device held outside the body.

"We are able to adjust the amplitude of the pulses as well as their frequency and duration," says

**During deep brain stimulation, small electrodes are placed in the brain. The electrodes are then attached to implanted pulse generators in the chest wall.**



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**Thomas DeBerardino, M.D.**, a nationally-recognized orthopaedic surgeon who specializes in sports medicine and knee, shoulder, and hip arthroscopy, is now seeing patients at the Health Center's New England Musculoskeletal Institute. He joins UConn after 28 years of service in the U.S. Army. During his last four years in the Army, Dr. DeBerardino served both as head team physician and sports medicine fellowship director at the United States Military Academy in West Point, N.Y. He completed fellowships at West Point and at the U.S. Army Institute of Surgical Research in San Antonio, Texas. Currently, he is an orthopaedic consultant for the UConn Huskies.



**Joyce Meng, M.D.**, a specialist in cardiovascular imaging, is now seeing patients at the Pat and Jim Calhoun Cardiology Center. Dr. Meng joins the UConn Health Center after completing a fellowship in cardiovascular disease at Beth Israel Deaconess Medical Center in Boston where she received the esteemed George Altman, M.D., & Harriet Altman Annual Cardiology Fellow Award. She also completed a fellowship in nuclear cardiology at Columbia Presbyterian Medical Center in New York. Dr. Meng received her M.D. from SUNY, Stony Brook Medical School and a B.A. in biochemistry from Harvard.

## Fibromuscular Dysplasia

### Diagnosing and treating this rare vascular condition

**Fibromuscular dysplasia (FMD) is a rare but treatable vascular condition that most often affects the renal and carotid arteries of women during childbearing years, though men and older women can also be affected.**

Patients with FMD have abnormal cell development in the artery wall that results in stenosis. Unlike in atherosclerosis, there is no accumulation of cholesterol plaques or inflammation in arteries with FMD.

Although some FMD patients have some symptoms that include headache, fatigue, a “rushing” sound in the ears, or even stroke, FMD is most frequently detected as an incidental discovery in a young patient with high blood pressure.

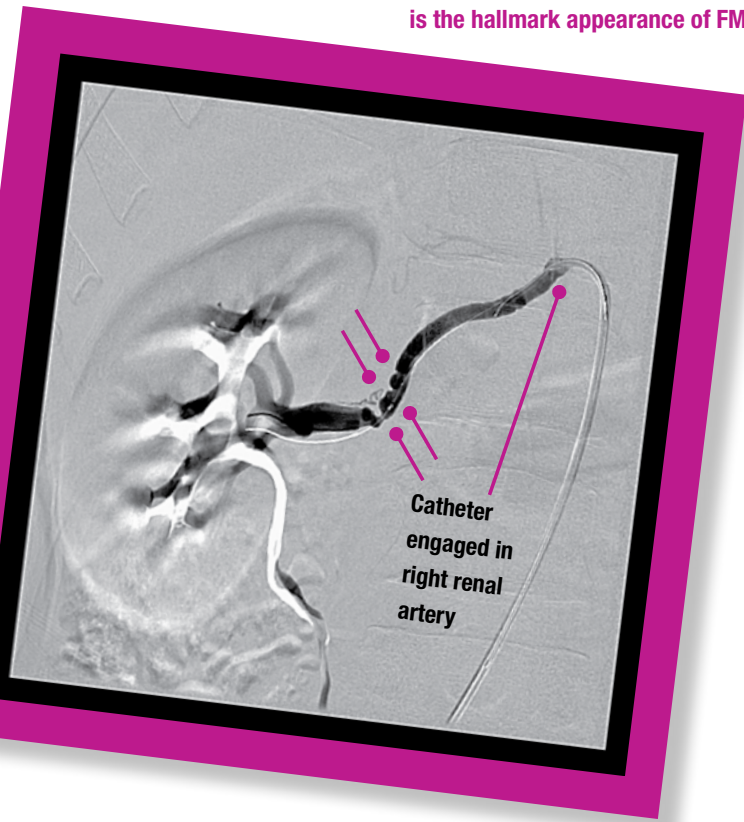
“Any time a young person — especially under the age of 35 — presents with hypertension, we need to look for so-called secondary causes hypertension, since they most likely are too young to have atherosclerosis,” says Kanwar Singh, M.D., director of Vascular Medicine and Intervention at the UConn Health Center, and one of the only physicians in the country who has diagnosed and treated multiple FMD patients.

“One of the first things we look for in the physical exam in diagnosing FMD is bruit on the flank or neck,” continues Dr. Singh. The diagnosis is then principally made with images from a MRA, CT, or ultrasound. In those imaging studies, doctors look for a “string of beads” appearance in the artery — a tight narrowing and aneurysms — that is the distinct hallmark of FMD.

Left untreated, FMD can lead to further damage in the areas supplied with blood by the affected artery. Those with FMD in their renal artery can experience ischemic renal atrophy and even, although rare, kidney failure. Those with FMD in a carotid artery are at a higher risk for stroke and intracranial aneurysms.

Treatments for FMD vary depending on the severity of the patient's condition. Patients with an asymptomatic FMD lesion would be started on antiplatelet medication to prevent further damage to the artery and the downstream organ. Those with more advanced FMD may require vascular procedures.

A “string of beads” — a tight narrowing and aneurysms in the affected artery — is the hallmark appearance of FMD.



“One of the first things we look for in the physical exam in diagnosing FMD is bruit on the flank or neck.”

—Kanwar Singh, M.D.,  
Director of Vascular Medicine and Intervention

“For those patients, we perform balloon angioplasty to stretch the narrow areas of the artery,” says Dr. Singh. “FMD patients usually do not require stenting because their arteries are not hardened. However, for some older patients with superimposed atherosclerosis, we will insert a stent after the angioplasty. We believe this can improve the long-term results. Rarely, due to anatomic constraints, surgery is preferred to our less invasive, catheter-based methods.”

After treatment, FMD patients require close follow-up. They will have an ultrasound on an annual basis for the first few years post-treatment to measure the velocity of blood flow in the treated artery.

**CALL!** To refer a patient to Dr. Singh, call **860-679-3343**. To speak with Dr. Singh directly, call **860-679-7233**.

## Finding Your Voice

**Voice disorders prevent patients from communicating with their doctors and their loved ones, causing frustration and isolation.** From patients who are professional singers and speakers to those who simply long to communicate again, the Voice and Speech Clinic at the UConn Health Center helps them find their voice.

The only clinic of its kind in Connecticut, the UConn Voice and Speech Clinic employs a unique assessment for each patient to determine the cause of the problem and creates an individualized treatment plan. Founded in 1992 by otolaryngologist Denis Lafreniere, M.D., the clinic has a staff of highly trained speech pathologists and voice specialists, including trained singers.

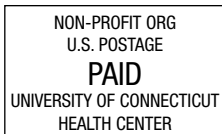
“Starr Cookman, Trish Doyle, Janet Rovalino, and I work closely as a team to determine the root of the problem and any barriers to recovery,” says Dr. Lafreniere. “Voice disorders have a variety of etiologies, and we use high tech computer software and videostroboscopy to perform voice and laryngeal evaluations that help us determine the cause of the voice disorder.”

Voice disorders can occur due to vocal cord irritation from allergic rhinitis or reflux. Voice misuse can lead to development of vocal cord swelling, nodules, or polyps. Voice disorders can have a neurologic origin that can be the result of a central nervous system defect such as that seen in Parkinson’s disease or stroke. It can also be due to a peripheral nervous system defect such as post-surgical vocal cord paralysis. Some patients develop bad vocal habits after an illness, which leads to a functional voice disorder.

The UConn Voice and Speech Clinic utilizes a comprehensive approach in the treatment of the voice disordered patient. Tissue irritation can be treated with the appropriate medication and functional abnormalities treated with voice therapy. Occasionally patients may require surgical intervention, and in those cases, Dr. Lafreniere utilizes state-of-the-art technology and techniques such as pulse dye laser and advanced microsurgical and laryngeal framework procedures. Patients will then rehab their voices with the help of the voice therapists. The goal is to get the individual back to doing what they need to do.

**CALL!** To refer a patient to the UConn Voice and Speech Clinic, call the physician referral line **877-676-1733**. To consult with Dr. Lafreniere, call **860-679-2804**.





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▶▶ **CONTACT US**

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Dr. Senatus. "We fine-tune the settings until we establish the best combination for each patient. Ultimately, we are able to alleviate tremors in a large percentage of patients and significantly diminish symptoms for others."

"Identifying which patients are good candidates for DBS is the important first step," says Adam Simmons, M.D., a neurologist who is part of the team at UConn that manages the pre-procedure evaluation, including an MRI and neuropsychological evaluation.

"If the MRI shows a lesion in the area of the brain where the electrodes need to be implanted, the patient may not be a good candidate for DBS," says Dr. Senatus. "Similarly, some patients with neurodegenerative conditions such as severe dementia, that can be exacerbated by DBS, may not be good candidates." Despite these limitations, the majority of patients can be successfully treated.

The UConn Health Center is the only hospital in the Hartford area that offers this high tech, highly effective treatment option.

**CALL!** To refer a patient for DBS evaluation or to consult with Dr. Senatus, call **860-679-4719**.

## Health Center Today Makes Debut

**See what's new around the Health Center at our new online resource "Health Center Today."**

The site contains the latest news, stories, events, and more to provide visitors including faculty, staff, students, volunteers, the media, and the public with Health Center news and information. "Health Center Today" is updated frequently so the Health Center community can get information as quickly and efficiently as possible.



**CLICK!** Bookmark <http://today.uhc.edu/> and make it part of your daily routine.

## FAST Facts

**52** Number of years the Connecticut Poison Control Center at the UConn Health Center has provided lifesaving treatment advice for the people of Connecticut and their health care providers.

**600** Average number of interns, residents, and fellows who train each day at hospitals throughout Greater Hartford under the sponsorship of the UConn School of Medicine.

*Know More — visit [www.uhc.edu](http://www.uhc.edu)*