
The Other
Side of the
Stethoscope

By Paula Hartman Cohen



The nightmare runs like this: One minute you're schussing down a black-diamond ski trail, and the next you can't feel anything south of your neck. Or one minute you're stepping out of the shower to get ready for a big date, and the next, as you glance at yourself in the mirror, you gasp. What is that lump?

Every day, physicians see patients who have actually lived bad dreams like these. That's their job. But what happens when a physician experiences the nightmare?

"No one thinks such things are going to happen to them," says Dr. Joseph O'Donnell, senior advising dean at Dartmouth Medical School and an oncologist who practices at the Dartmouth-affiliated White River Junction, Vt., VA Medical Center.

When "such things" do happen, does a medical professional handle serious illness or injury any differently than the average patient? Is an ailing or disabled physician treated differently by patients and colleagues than an able caregiver—perhaps even shunned? Do the physical and psychic demands of medicine make ill health an unbearable added burden? Or can illness, instead, be an asset to a physician? The answers to these questions are, of course, highly individual.

According to the U.S. Department of Health and Human Services, there were 738,000 practicing physicians in the U.S. as of 2000. It's hard to know what percentage of them have, say, battled cancer, lost the use of a limb, or lack the ability to hear. The number of disabled medical students is a little easier to pin down. There are some 69,000 U.S. medical students—about two-tenths of one percent of whom, according to a recent article in the *Canadian Medical Association Journal*, are reported as being disabled (or roughly 136 at any given time). But, added the article, not only do schools frequently underreport such data, but it can be hard to define just what qualifies as a disability. "Disability is mostly in the eye of the beholder," wrote Dr. Nicholas Walker, president of the Canadian Association of Physicians with Disabilities, in an electronic post responding to the article.

Consider not being able to hear, or walk, or use your hands. Is it still possible to succeed in medical school or to practice medicine? Indeed it is. Dartmouth has trained students who are deaf, students who have survived life-threatening diseases, and

even one of the nation's handful of quadriplegic medical students. It also has, among its faculty ranks, some clinicians whose own lives have been affected by serious illness or injury.

Some of their infirmities are obvious, while others are invisible. Some students and faculty prefer not to discuss their situation, while others appreciate the opportunity to share their experiences, in the hope of helping a stranger or a colleague who may someday face a similar challenge.

Most of the half-dozen alumni and faculty who shared their stories with DARTMOUTH MEDICINE voiced surprise at the roadblock that life put before them. But virtually all expressed gratitude and joy that they survived and are now able to share what they learned.

Here are the stories of six remarkable physicians associated with Dartmouth Medical School. Perhaps the recounting of their lives will encourage other members of the DMS community who face similar challenges. Without question, their courage will inspire everyone.

A perfect life

Cathy Conry-Cantilena, DMS '86

When she was in her late thirties, Dr. Cathy Conry-Cantilena was "living a dream" in a leafy, upscale Maryland suburb. A 1986 graduate of DMS, proud mother of four children (then aged 14, 12, 7, and 18 months), and wife of a physician (Dr. Louis Cantilena), she could hardly wait to get up in the morning and go to one of her two part-time jobs.

She remembers working "like a maniac" as medical director for the transfusion medicine fellowship program at the National Institutes of Health (NIH), and as medical director for the Greater Chesapeake and Potomac Blood Region of the American Red Cross (ARC). With a keen interest in the hepatitis C virus (HCV), Conry-Cantilena was involved in clinical research at the NIH. And at the ARC, her job involved maintaining an adequate blood supply for the D.C. metro area. She loved her time with her kids, too. Being Super Mom was all in a day's work.

Over the years, Conry-Cantilena had noticed occasional shortness of breath, but her physicians always found a reason related to one pregnancy or another to explain her labored breathing and fatigue. Still, she worried.

In 2000, a routine chest x-ray led to something she didn't want to hear. She was diagnosed with lymphangiomyomatosis (LAM), a rare, progressive, cystic lung disease with no cure. LAM predominantly affects women of childbearing age. It

Physicians, for all their knowledge about health, sometimes fall prey to serious illness and injury—and find themselves on the receiving end of the stethoscope. Or individuals with experience as a patient sometimes decide to enter medicine—and become the person wielding the stethoscope. In either case, their patients often benefit.

Paula Hartman Cohen, now a Massachusetts-based freelancer, spent almost 20 years writing for Newsday on Long Island. She has also worked as the science news editor for the University of Massachusetts at Amherst and as the director of communications for the Hospice Care Network of Westbury, N.Y. The photo-illustrations accompanying this feature are the work of Jennifer Durgin, based on photographs by Ernie Branson, Flying Squirrel Graphics, Jon Gilbert Fox, Mark Washburn, and Keith Weller.



Cathy Conry-Cantilena

In March 2006, Conry-Cantilena underwent a double-lung transplant, and today people tell her she looks great. “People complain about life not being perfect,” she says. “My life was perfect. Even now, I still believe life is perfect.”

may be underdiagnosed; experts estimate that there could be as many as 300,000 cases worldwide.

After the diagnosis, Conry-Cantilena spent five years denying the severity of her condition, even as it slowly worsened. Some days, she’d just wish for it to go away. “I didn’t want LAM to define me,” she recalls.

Unfortunately, she was unable to hide her fragility and deterioration from either patients or her family. By 2005, she was oxygen-dependent and started looking around for transplant options.

“I would put my oxygen tanks on my back to go to work,” she says. “I’m sure [my patients] felt sorry for me, and I hated that. It wasn’t something I wanted to dwell upon.”

During a family visit to New York, her mother took one look at her and asked, “What is wrong with you?” A few months later, in March 2006, Conry-Cantilena underwent a successful double-lung transplant, and today people tell her she looks great.

“People complain about life not being perfect,” she says. “My life was perfect. Even now, I still believe life is perfect.”

When she began researching transplant options with the United Network for Organ Sharing (UNOS), she identified Duke University Medical Center as having extensive experience with double-lung transplants. Shortly after New Year’s Day in 2006, she entered the Duke program to prepare for the complex surgery. Her husband and their two youngest children relocated to North Carolina to be with her through the rigorous preparation, surgery, and postop period.

A few weeks into the program, Conry-Cantilena came down with a respiratory infection. Her already marginal condition worsened, and on March 5, she actually “coded”—went into respiratory arrest—for six to eight minutes. Her husband, who was constantly at her bedside in the ICU, was aware of potential complications unique to LAM and offered the Duke team a quick education in the disease. His suggestions led to her successful resuscitation, she says.

“After the code, still on a ventilator, no one was sure I had much, if any, neural function,” she says now. Shooting to the top of the transplant list, Conry-Cantilena remained intubated until a new set of lungs was found, four days later. The day after the surgery, she was able to sit in a chair and breathe just room air.

The picture she has of herself before the transplant, and the dramatic improvement she saw afterward, is “what throttles me each day,” she says. “It is a constant reminder of the importance of compassion. What a gift this journey has been to me!”

Conry-Cantilena now appreciates life more than ever. She loves reading to her youngest daughter, looks forward to family dinners, loves holidays when all the kids are home. “I look at the sky, and it’s still blue. You can’t imagine! It’s a gift. I used to have to think about every breath I took.”

Today, she goes to work with a different mindset but still manages to put in time each week at her two jobs. Her commitment has shifted from trying to maintain the region’s blood supply to being a poster child for blood and organ donation.

“I want to shake every donor’s hand and thank them for what they do,” she says. Her personal experience has taken her medical experience to a new level, she says. She likens the experience to having children. “You know you like kids,” she says, “but when you have them you find out what it’s really like. Nobody tells you it’s a love affair!”

Because of the shortage of useable organs, the UNOS does not test donor organs for cytomegalovirus (CMV). “All of these surgeries are urgent,” Conry-Cantilena explains, “so you can’t worry about things like that when the most important thing is giving you a life-saving organ.” As it happens, she received her new lungs from a CMV-positive donor and has had some problems as a result.

“I have to keep reminding myself that I’m a patient now, not just a doc,” she said. “These little setbacks keep you humble.”

After a few “horrible” months fighting the CMV infection, Conry-Cantilena finally became CMV-negative early this year. She still performs a daily saline infusion to keep her creatinine levels and renal function in line. “I will always have the virus, but it won’t always be active,” she says.

Some of her NIH patients have HCV, and she recalls how she used to try to allay their fears. Today she truly knows what it means to be afraid of what’s going on in your own body.

In the months just before her transplant, she was so weak she had to rely on her oldest children for transportation and could barely speak above a whisper. Today, the Bronx native happily drives—and yells, whenever she needs to.

To keep up her strength, Conry-Cantilena works out on an elliptical bike every day or takes walks along the Chesapeake and Ohio Canal near her home. She has put on some weight (before the transplant, she was down to 86 pounds on her 5’6” frame) and has even gone skiing. But the risk of infection means she’s had to give up pets, gardening, and helping out at her youngest daughter’s school. Her condition also dictates that she forgo a few other activities that she has had much less trouble giving up—vacuuming, taking out the trash, and han-

dling anything moldy. She also avoids airplanes, subways, and crowds. Otherwise, she leads a relatively normal life because, as she puts it, she can't live "in fear of setbacks."

Eyes wide open

James Bell, DMS cardiologist

Physicians tend to assume they'll never be patients—in part because "doctors are supposed to know better than get sick," quips Dr. James Bell, an associate professor of medicine at Dartmouth. "That's part of the mystique."

There's an element of embarrassment, mixed with a large dose of denial, he says, when a physician falls victim to an errant piece of plaque, an out-of-control cell, a weak muscle, or a common bacterium. Whatever malady a doctor helps patients avoid or survive, he or she should be immune to—or at least able to get rid of quickly. Right?

Bell, who practices cardiology at the Dartmouth-affiliated VA Medical Center in White River Junction, Vt., realizes now that his family history may have ignited his own interest in heart disease, since his father died after a heart attack while Bell was in medical school in New York. He has since then devoted more than 30 years to cardiology, in practice and in the classroom. It's safe to say that he knows the level of his own risk as well as he knows his own name.

"I've often said, 'If you have something, you go into that field,'" Bell comments.

For years at Dartmouth, Bell has given a lecture to medical students on the emotions that patients experience before, during, and after a heart attack. He mentions the power of mind-body interactions, the fact that anxiety can play a role in heart conditions, and the psychological reactions, including depression, that patients often have after a heart attack. Never doubting that he would recognize and take control of the situation should he experience the symptoms of a heart attack himself, Bell says today that "I thought I was mentally prepared." A practicing Buddhist, he went so far as to meditate on his own death, taking himself mentally through each step of the heart attack that might one day end his life. Nonetheless, his actual myocardial infarction came as a shock.

There he was, in his own home, watching a football game, when the very event that threatens the lives of his patients threatened him. His wife called an ambulance, and at that moment, Bell realized there was a 20 percent chance he would not make it through the next hour.

He did make it, however, spending four days at

DHMC before being released for cardiac rehabilitation. He admits in his lectures to students now that he was completely shaken during that time—his first experience being in a hospital "with nothing to do," as a patient rather than as a doctor.

Doctors are so accustomed to putting aside whatever is happening in their own lives to tend to the needs of their patients, says Bell, that they often fail to notice their own problems. Their sense of duty, a sort of stoicism, can get in the way of their personal health and well-being. But the experience gained by those who survive a life-threatening disease or injury, Bell is convinced, can make them better doctors.

"I used to pride myself on being very sensitive," he says. But since his own heart attack, he believes that he is even better at both teaching and taking care of patients. "I would have sworn I was already compassionate," Bell adds, "but it's so easy to say, 'I know what you're going through.' Now, I've been there."

Compassion can go a long way toward helping patients cope with their ailments. Technological wizardry is more highly rewarded in medicine, but talking to patients is undervalued relative to the good it does, Bell believes. "You have to maintain human contact with patients. It's therapeutic. I've always thought that . . . but now I can say it with assurance."

Since going to the edge of life and back himself, Bell believes that he now is the best doctor he's ever been. "I had all these skills," he says, "and now I have this other dimension."

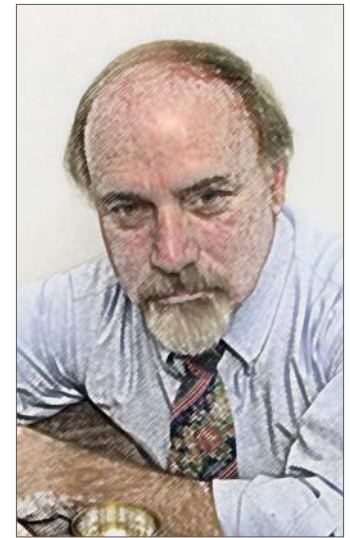
Focused and positive

Dr. Wendy Osterling, DC '95 and DMS '04

Wendy Osterling, a 2004 graduate of Dartmouth Medical School, advises aspiring doctors who share her disability to "be truthful and proud of your hearing loss on your applications." Now a third-year resident in pediatrics at the University of Utah Health Sciences Center, she plans to stay on there for subspecialty training in pediatric neurology.

Osterling, who has been deaf since birth, entered medical school after graduating from Dartmouth College in 1995 and then serving in the Peace Corps. She was one of two students in her DMS class with profound hearing loss.

Today, an interpreter follows Osterling through the hospital, helping her to participate in morning report and rounds and to answer phone calls and pages. During patient appointments, the interpreter positions herself in the exam room where Osterling will be able to both watch the interpreter signing



James Bell

"I used to pride myself on being very sensitive," cardiologist Bell says. But since his own heart attack, he believes he's better at both teaching and taking care of patients. "I would have sworn I was already compassionate," he adds.



Wendy Osterling

Osterling has developed skills that make up for her hearing loss. “I have had patients tell me that they feel like I really listen to them, since I have to look at their face to lip-read and [don’t] hide in the charts like other doctors do.”

and lip-read the patient’s parents at the same time.

“Having a sign-language interpreter often breaks the ice,” Osterling says, “as patients and their parents are fascinated by the signing.” When she meets patients for the first time, she tells them immediately that she is deaf and both lip-reads and has a sign interpreter. “I find this open introduction puts patients and their families at ease. They realize their doctor is not perfect either.”

Her disability actually helps, she believes, since her own challenges add to her empathy for patients and their parents. “I can counsel them from my own life experiences,” she says.

Osterling explains that her interpersonal and observational skills make up for her hearing loss. “I have had patients tell me that they feel like I really listen to them, since I have to look at their face to lip-read and [don’t] hide in the charts like other doctors do.”

Not everyone has supported her in her training, but she has not been deterred. “There are always a few insensitive jerks who make things more difficult,” she notes, “and you just learn how to pick and choose your battles, and maneuver around the others. Most of my challenges have been with people who need a little more education to open their minds.”

In a presentation she offers to deaf college students who are considering medicine, she advises them to focus on “Five Es” as the key to success: enthusiasm, education, expect (the unexpected), energy, and empathy. To succeed at getting into medical school, she says, students must be up-front about their needs and the accommodations they will require. When it gets rough or they doubt their abilities, they should follow their hearts and focus on their dreams. If all else fails, she advises them to explore their options and rights under the 1990 Americans with Disabilities Act.

In her spare time, Osterling works with the Association of Medical Professionals with Hearing Loss, which keeps her in contact with other deaf doctors around the country. In addition, she recently volunteered as the medical coordinator for the 16th Winter Deaf Olympics in Salt Lake City—helping skiers and skaters and other athletes for whom “picking yourself up” is a literal as well as a figurative exhortation.

Not the end of the world

Michael Mayor, DMS orthopaedist

Dr. Michael Mayor, a professor of orthopaedic surgery at DMS and an adjunct professor of engineering at Dartmouth’s Thayer School of Engineer-

ing, is internationally known as a member of a biomedical engineering team that revolutionized the design of prosthetic joints. It may be less well known that Mayor not only has a knee implant (like those he designed) in his left leg, but that he lost his right leg as a teenager.

“The challenge of growing up with an artificial limb shaped a lot of what I have become,” he says now, looking back on his 40-year career in medicine. Today, he no longer performs surgery but is still actively doing orthopaedic research. And he relishes the time he is able to spend puttering around his home workshop and managing the forest on a big woodlot north of Hanover that he and his wife own.

A high school athlete who excelled in football, hockey, and lacrosse, Mayor lost his right leg to atypical fibrous sarcoma just before he entered college. “The loss was stunning,” he recalls.

His family showered him with love and support, which he appreciates to this day. Not long after his surgery, Mayor’s father took him to meet New Jersey inventor and coach Donald Kerr, himself an amputee. Kerr spent several years helping the young athlete get back into squash, badminton, and tennis, sports he continued to play throughout his undergraduate studies in engineering and business at Yale.

Mayor recalls that, in his case, fear of the cure overshadowed his fear of the underlying disease. “We didn’t talk much about cancer in those days,” he says.

One winter at Yale, some of his friends invited him to go with them on a ski trip to Mad River Glen in Vermont. Mayor was game but unsure what he’d do while everyone else was skiing. Maybe he’d hang around the lodge or watch his buddies race down the hill. But the ski school director had another idea. He showed Mayor some primitive outrigger poles he had tucked away. Thanks to help from some sports equipment salespeople, an orphaned left ski boot, and a single ski abandoned by its owner after its mate had shattered, Mayor soon had a jury-rigged outfit that he, too, could use to fly down the slopes. He was hooked.

“I had a lot of power in my arms,” he recalls, “so we skied all over New England.” Mayor even met his future wife, Lili, on one of those outings. He says now that conquering the ski slopes convinced him that having only one leg was more of a challenge than a handicap. There would be nothing he couldn’t accomplish, he decided, once he put his mind to it.

In 1959, Mayor graduated from Yale with a degree in electrical engineering, then completed his premedical requirements before entering Yale

School of Medicine. He did his residency at Cleveland's University Hospitals. Intrigued by Mayor's background, the chief of orthopaedic surgery there asked him to spend his research rotation helping the department establish a clinical unit that could advance the budding technology for doing hip replacements. By 1970, the hospital was doing some of the first such surgeries in the U.S. And by 1971, when Mayor joined the faculty at Dartmouth, he had performed more hip replacements than anyone else in Cleveland.

In Hanover, Stanley Brown, a '71 Dartmouth engineering grad, asked Mayor to form a research group to test and develop materials for use in orthopaedic procedures. In a little lab behind the Medical School, Mayor and Brown undertook a series of studies of orthopaedic implants and of the reactions patients had to their implants. Later, Mayor served on the thesis committee for an engineering Ph.D. student, John Collier, and upon Collier's graduation he and Mayor began to collect failed, "explanted" prosthetic joints. They wanted to study what hadn't worked in the hope of learning how to make implants that would work better. It took several years, but by the late 1970s they had developed a new class of orthopaedic biomedical materials and techniques. One involved making implants with a thin, porous metal coating to which the bone could cleave, making the implant truly part of the individual's skeleton. This allowed surgeons to forego the use of bone cement, a substance that occasionally led to infection, loosening, or rejection. Today, the technology developed at Dartmouth is the gold standard for orthopaedic implant surgery.

Four years ago, Mayor reaped what his own research group had sowed when he underwent replacement surgery on his own left knee, which had worn out after years of extra stress. That experience—coupled with living for more than 40 years as an amputee—gave him an advantage in the clinical arena, he says.

"When I changed a dressing or adjusted a splint, I [could use my personal knowledge] to reduce pain and unpleasantness," he explains. And though he no longer practices actively, he still reaches out to young people facing amputation, assuring them that the surgery is "not the end of the world."

Mayor's current research focus is a device that he hopes will make life easier for others facing above-knee amputations. The loss of his own leg did not kill him, he concedes, but was a considerable hurdle that he had to overcome at a young age. By maneuvering that hurdle—first by learning to ski, then by going into medicine—Mayor believes he gained a strength and focus that has allowed him to build

a wonderful life for himself and his family, to serve thousands of patients over the years, and to advance the state of the art in orthopaedics.

Everything changes

Andrew Place, DMS '04 and '06

Almost 15 years ago, Dr. Andrew Place was a 19-year-old sophomore on a ROTC scholarship at Swarthmore, preparing for a career as a pilot in the military. When he felt a mass in his neck one day while shaving, he went to the college infirmary. He was lucky to encounter a "moonlighting resident from UPenn." That visit started a workup that led to a diagnosis of Hodgkin's lymphoma.

Place—who is now an M.D.-Ph.D. graduate of Dartmouth Medical School (he completed his doctorate in pharmacology and toxicology in 2004 and his M.D. in 2006)—dropped out of college and went home to Maine for surgery and chemotherapy. The experience kindled an interest in medicine. Back at Swarthmore a year later, he switched to premed and applied to several medical schools during his senior year but failed to get any offers of admission by graduation.

Not knowing what to do next, Place took a job at an outdoor clothing store near his home in Maine. Eventually, his oncologist put him in touch with a researcher at Dana-Farber Cancer Institute in Boston, and Place got hired there as a lab assistant. One thing led to another and he was admitted to DMS.

At one point during his time at Dartmouth, Place was asked by Senior Advising Dean Joseph O'Donnell to speak to second-year medical students about his experience with cancer. Place told them to remember that patients are human, not just the embodiment of some disease—that they are Patriots fans, lawyers, schoolteachers, or sometimes even fifth-graders. He wanted to help his fellow students understand what it's like to be sick and helpless.

Physician or not, you learn a lot about yourself when you go through cancer, Place says. Everything in his life changed—even his career path. "Considering the state of the world right now," he reflects, if it hadn't been for cancer, "I would be flying over Baghdad right now."

Instead, he is today a newly married, first-year pediatric resident at Children's Hospital in Boston, happy to be surviving his long but exciting workweeks. "I typically don't actually expose to patients and families that I'm a cancer survivor," Place explains. "You run the risk of depersonalizing what they're going through."

Still, the young doctor is convinced that his ex-



Michael Mayor

Mayor says living for more than 40 years as an amputee gave him an advantage in the clinical arena. "When I changed a dressing or adjusted a splint, I [could use my personal knowledge] to reduce pain and unpleasantness."



Andrew Place

Place now realizes how terrible it must have been for his parents when he was diagnosed. “Waiting around for test results is often the worst part of any disease,” he says, so he is very careful to explain what to expect.

perience has increased his understanding of the frustrations and fears felt by his young patients and their parents. He recalls the pain he saw on the faces of his own parents when he was hospitalized. How terrible it must have been for them, he realizes, to feel confused, alone, and powerless in the face of a disease that could have taken the life of their child.

“Waiting around for test results is often the worst part of any disease,” he says, so he is very careful to explain to parents what to expect and how to get the information they need.

Place believes that the most important legacy of his ordeal has been his success at listening. “I just listen to parents and say, ‘Yeah, I’ve been there, it sucks. You have every right to feel that way.’”

Pain and privilege

Robert “S.B.” Lee, DMS ’01

When Dr. Robert Seung-bok Lee (known to all as “S.B.”) talks about his work in rehabilitation medicine, he speaks of the “privilege” of working with spinal-cord injury patients and of the “advantage” he has over many of his colleagues at Johns Hopkins Medical Center. The advantage is that he, himself, is a quadriplegic.

Lee, a 2001 graduate of Dartmouth Medical School, was injured 24 years ago. He was a high school senior, a highly competitive gymnast in Flushing, N.Y., who was determined to raise his skills to the world-class level—even if it meant going against the wishes of his immigrant parents. Much to their dismay, Lee left home to train for a chance to compete with the Korean gymnastics team in the 1988 Summer Olympics in Seoul. He thought hard work and determination would earn him a slot and make his parents proud.

And he did make the cut for the Korean team. But then came a devastating injury. It happened during a routine practice of a routine move on a routine day. The diagnosis: injury to the spinal cord from dislocation of his seventh cervical vertebra. The prognosis: he would spend the rest of his life paralyzed from the neck down.

Angry, frightened, and in pain, Lee entered a hospital-based rehabilitation program. One day, a group of physicians came through the ward “with all kinds of tools and gadgets.” They were cold, abrupt, and seemingly disinterested in his plight or that of the other patients around him. He had expected more from medical professionals, especially considering his age and situation. But they made no eye contact, he remembers, and, in fact, never even lifted their heads from looking at their clipboards.

“We were their little guinea pigs for research projects, and they were checking on how things were brewing,” he says, remembering how belittled he felt. “That’s when I decided I was going to take matters into my own hands” and become a doctor.

At New York’s Rusk Institute of Rehabilitation Medicine, he was fitted with a special glove containing a pen point, making it possible for him to take notes in his own form of shorthand. Somehow he got through his undergraduate studies at New York University.

Medical school was even more challenging for Lee. His memories of Dartmouth range from good to bittersweet. Just getting accepted was hard enough. Dr. James Bell was on the admissions committee that considered his application, and Bell recalls that not everyone believed a quadriplegic could succeed at DMS.

Ultimately, Lee did succeed, but not without “a lot of battles along the way,” according to Bell. Some of Lee’s battles were with the difficulty of the courses, some with northern New England weather, and some with his own body. Bell remembers a time when Lee burned his hand on a radiator and required three months of treatment and rehabilitation before he could return to class.

Lee also needed two full hours in the morning just to tend to his personal care. He wishes now that he had built more stamina before entering medical school, because that’s what he needed to punch through the pain of sitting in a wheelchair all day or to push himself around campus with one arm. In the winter, of course, his life got even harder, though his classmates helped him to navigate snowy streets and sidewalks.

Studying was a big problem. He could have done it sitting in his wheelchair at night, but he didn’t want to “overdo it and get pressure sores.” So he’d prop himself up on one side in bed to read. It was hard to concentrate in that position, so he often fell asleep over his books. No matter what the task, everything took longer for Lee than for anyone else. By the end of his first year, he was discouraged; some days, he felt like “the whole world was against” him.

When it came time for his initial clinical experiences, Dr. John Radebaugh, a member of the Department of Community and Family Medicine, took Lee with him on house calls to rural patients. Lee did quite well, Radebaugh recalls, connecting especially well with handicapped patients or those dealing with other hardships. Lee was able to gain their confidence, and on follow-up visits many of these patients would often ask to see the student, not the teacher.

“S.B. was older than most students, and because he’d been through so much he was able to relate to

people in a more adult manner,” says Radebaugh, who is now retired.

Lee credits Radebaugh with teaching him the art of medicine. The older physician was a mentor, a friend, almost an uncle. When it came time for Radebaugh to retire, even though he and his wife planned to move to Maine, they stayed on in Hanover for a while to help Lee get established on his own. “He made it possible for me to endure all the hardships,” Lee says.

Today, Lee is a celebrity as one of only a handful of quadriplegics practicing medicine in the U.S. His story has been featured in *Reader's Digest* and on national television.

His full-time job is in the Department of Physical Medicine and Rehabilitation at Johns Hopkins. He does clinical research, managing the medical needs of patients with spinal-cord injuries and evaluating them for eligibility in clinical trials.

After 24 years in a wheelchair, Lee is now able to use his arms and hands well enough to examine patients. If necessary, he can raise the seat of his hydraulic wheelchair so he's at eye-level with a standing person. He finds it easy to use the speakerphone in his office but has “a little trouble” flipping open his cell phone. And although he has built up the muscles in his arms and back, his fingers and hands remain weak. Still, he can draw blood and manipulate a cotton swab—but admits that he does a dreadful rectal exam.

Most of the techniques he uses to get by are ones he devised himself. “You learn the basics, and then it's up to the individual,” he says. “The rehab process never ends.”

At Hopkins, Lee leads a support group for patients with spinal-cord injuries. He says they ask all kinds of personal questions: How can I use an airplane toilet? What about sex? “No one was able to answer these questions for me,” he says, “but now I have the privilege of providing information to these people and saving them from grief.”

Lee prides himself on his ability to build strong ties with his patients; he says strong communication skills are as much a part of good medicine as strong technical knowledge. The “advantage” of his own experience with spinal cord injury, and the self-assurance he has gained from meeting challenges since then, have made him a better physician and a better person, he believes.

He recently married a Korean teacher whom he met during one of his trips to Korea, where he volunteers as the medical coordinator for the nation's Olympic teams.

Looking back at the many challenges he's overcome to get where he is, he says, with the hint of a smile, “Now I can reflect and see only the positive.”

The Americans with Disabilities Act (ADA) was passed in 1990, but it took a while for the academic community to determine how the law could and should be implemented on campuses. “S.B. Lee and others like him were pioneers in teaching [DMS] what [disabled students] needed” in order to succeed, explains Dr. Joseph O'Donnell. The senior advising dean for DMS, he says that Dartmouth has recently expanded its programs for students with disabilities.

O'Donnell hopes, if he ever finds himself in a situation similar to Lee's, that he will “have as much grace as S.B.” It's a daunting thought, though. “How could I live,” O'Donnell wonders, “without being able to tie my shoes?”

Lee may not be able to tie his shoes, but before he left DMS he developed an elective to give faculty and fellow students a chance to step into his shoes, by spending a day in a wheelchair. Those who participated—including O'Donnell and Bell—still talk about what they learned. It was quite a sight, they say, as the “class” maneuvered through doorways, figured out how to get in and out of restroom stalls, and balanced a cafeteria tray while wheeling through a lunchtime crowd.

The psychic lessons were even more powerful. Lee educated—and humbled—those who volunteered to experience firsthand the effort it takes just to get through a day when key abilities are compromised. “It's amazing what people do to overcome what's thrown in their way,” says O'Donnell.

From those who have succeeded in spite of great challenges, DMS students and faculty have learned that everyone has differing abilities, not disabilities, notes O'Donnell. “In a world not built for them,” he says, students like S.B. Lee and Wendy Osterling “had to learn how to adapt, and they did.”

O'Donnell has seen many improvements in recent years in the climate in the classroom, on campus, and even in town for students with disabilities. For one, learning specialist and professional counselor Kalindi Trietley was named director of learning and disability services for the Medical School in 2004. She reports directly to Dr. David Nierenberg, senior associate dean for medical education.

Of course, all students must meet certain essential requirements to be granted an M.D. But the creation of an office focused on disability issues is a testament to DMS's commitment to helping all admitted students succeed in medical school, Trietley says. “Dartmouth is not a place that just tolerates disabilities, or just works to meet the letter of the law, but has a genuine, heart-felt desire to support possibilities.” For a list of DMS's policies related to disabilities and the services available to disabled students, see <http://dms.dartmouth.edu/admin/olads>. ■



Robert "S.B." Lee

Frightened and in pain after his spinal-cord injury, Lee recalls a group of physicians who were cold, abrupt, and seemingly disinterested. “That’s when I decided to take matters into my own hands,” he says, and become a doctor.