FROM LEFT: Colin West, M.D., Ph.D., Tait Shanafelt, M.D., and Lotte Dybrye, M.D., M.H.P.E. The three have brought physician burnout out of the closet.

PHOTO COURTESY MAYO CLINIC
Shanafelt decided to look into the problem. To do so, he surveyed internal medicine residents in Seattle and discovered that burnout not only was common among them but also that it harms the quality of care they provide and increases rates of major medical errors. He published those results in 2002 in the *Annals of Internal Medicine*.

After finishing his residency, Shanafelt came to Mayo Clinic in 2001 to do a hematology/oncology fellowship. He later joined the faculty and was asked by leaders at Mayo, who had taken note of his initial study, to continue his research on burnout among internal medicine residents. Shanafelt recruited Colin West, M.D., who was chief internal medicine resident at the time and has a Ph.D. in biostatistics, to his team. In 2004, they were joined by another internal medicine physician, Lotte Dyrbye M.D., M.H.P.E., who had also read Shanafelt’s 2002 article on residents and was interested in finding out whether burnout starts to take hold even earlier, in medical school. (It does.)

Shanafelt, West and Dyrbye began exploring the issue in earnest. In 2007, they were tapped to head up Mayo’s Physician Well-Being Program to research the causes of burnout and develop evidence-based ways to prevent it and reduce it. Since then, they have published more than 60 peer-reviewed articles and become international experts on the topic.

**Into the spotlight**

Together, the three researchers have brought the topic of physician burnout out of the closet and into the national spotlight. “Ten years ago, burnout was something you just didn’t talk about,” West says. “The traditional attitude was that physicians were supposed to be super-human, immune from burnout and capable of handling anything.” Professional distress was thought to be a sign of weakness experienced by only a few.

That line of thinking began to change when some of the findings from their early studies were widely reported in the lay press. “After that, it snowballed,” Shanafelt recalls. The AMA and the American College of Surgeons, among others, asked them to do more research.

In 2010, the team led the first national study on burnout, comparing 7,300 practicing physicians across all specialties to a probability-based sample of the U.S. population. They found 45 percent of physicians were experiencing professional burnout. “We learned that physicians have significantly higher burnout rates than people in other professions do,” West says.

They also learned that burnout crosses all specialties and that emergency medicine physicians had the highest rate, fol-
lowed by those in general internal medicine, neurology and family medicine. The lowest rates, which were still high compared with those of other professions, were among those practicing occupational and environmental medicine, dermatology and general pediatrics. Men and women experienced comparable burnout rates.

Shanafelt’s team also discovered that physician burnout manifests in a number of ways: Signs and symptoms include loss of enthusiasm for work, cynicism, lack of empathy for patients and a low sense of personal accomplishment. In addition, they found burnout could be linked to medical errors, poor quality of care, family strife, substance abuse, depression, suicidality, decreased productivity and early retirement.

**A hard sell**

Getting administrators and program directors to see burnout as the problem it is wasn’t easy. Often while speaking around the country, the researchers would hear administrators say they had bigger fish to fry—that the bottom line would take a hit if they did anything to address burnout that cost money or reduced physician productivity.

“So we had to first build a foundation of evidence that physician burnout is a common and serious problem,” West says. “Administrators would often tell us things like ‘All professionals are stressed out and physicians aren’t any different.’ Our response was to study that assertion. That’s when we looked at burnout across specialties and learned that physicians do experience burnout at higher rates than other professionals do and that it has more serious consequences than it does in other professions.”

West cites the following as some of the factors that contribute to burnout: declining reimbursements, rising productivity expectations, increasing regulations and documentation requirements, electronic medical record headaches, loss of autonomy, increasing complexity of patients, and continuity-of-care challenges that come with team-based medicine. “These stressors hit physicians full force,” he says. “The system tends to beat us up, chew us up and spit us out. We want to prevent that.”

The question is how. “Many well-meaning people have come up with interventions, “ Shanafelt says. “The problem is that for many of these, there’s no evidence that they work, which makes it difficult for leaders to support them in an era of limited resources.”

Mayo’s Physician Well-Being Program has shifted its focus to designing and testing interventions that individuals and organizations can pursue to prevent and deal with burnout. “That will be our research focus in the future,” Shanafelt says, “to find practical, cost-effective ways organizations can help physicians cope with the challenges of modern medical practice so they can provide the best possible care to patients.”

The physicians’ index has been shown to predict the likelihood of such personal and professional consequences as major medical errors, suicidal ideation, and intent to reduce hours or leave medical practice. The index has been tested with more than 12,000 physicians in the United States. Recent results published in the 2013 *Annals of Surgery* show that half of all surgeons who completed the electronic self-assessment said it helped motivate them to make changes proven to improve their well-being. The student index identifies medical students whose degree of distress places them at risk for severe consequences such as suicide. It has been tested on more than 4,000 U.S. medical students.—H.B.

**Well-Being Index**

During the past month:
- Have you felt burned out from work/medical school?
- Have you worried that work/medical school is hardening you emotionally?
- Have you often been bothered by feeling down, depressed or hopeless?
- Have you fallen asleep while stopped in traffic or driving?
- Have you felt that all the things you had to do were piling up so high that you could not overcome them?
- Have you been bothered by emotional problems (such as feeling anxious, depressed or irritable)?
- Has your physical health interfered with your ability to do your daily work at home and/or away from home?

“Consequences include medical errors, poor quality of care, family strife, substance abuse, depression, suicidality, decreased productivity and early retirement.”

The self-assessment is available on Mayo Clinic’s website and allows users to answer questions about their well-being and then compares their responses with those of other physicians and medical students. The results can then be used to help individuals identify areas in which they may need to make changes to improve their well-being.

**SELF CHECK-UP**

To help physicians and medical students assess their risk for burnout, Lotte Dyrbye, M.D., M.H.P.E., and Tait Shanafelt, M.D., two of the leaders of Mayo Clinic’s Physician Well-Being Program, developed the Mayo Clinic Physician Well-Being Index and the Medical Student Well-Being Index. Both self-assessments can be completed electronically. “It’s a way to check in with yourself and get some insight into how you’re doing compared to national norms,” Dyrbye says.

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Some, like getting exercise, seem obvious, even mundane. Nevertheless, research shows it can work. Dyrbye, who works full-time and has three young children, either runs, lifts weights, bikes or skis nearly every day. Studies show that mindfulness training also can help some physicians lower their burnout scores. That training includes meditation, writing sessions and discussions on topics such as managing conflict, setting boundaries and self-care. West admits that mindfulness training won’t appeal to all physicians. “But it’s been shown to work,” he says.

West admits he struggles just like everybody else to maintain a work-family balance. When he has a chance, he plays tennis, works out and spends time with family. “One thing that works for me is simply conceding that sometimes work is going to win. But that means at other times I have to make sure home wins,” he says.

West says another burnout buster is having variety in his job. Some days he works with residents. Other days he does research or sees patients. He says it’s doing research that really stokes his fire.

Spending at least part of your work day doing something you really like helps prevent burnout, according to another one of their studies that looked at job fit and burnout. “We found that if you spend 20 percent of your work hours doing what you find most professionally meaningful, it dramatically decreases rates of burnout,” Shanafelt says. “Interestingly, 20 percent seems to be the magic threshold; spending more than 20 percent doesn’t provide incremental benefit.”

For Shanafelt, that 20 percent zest-for-work preserver is leukemia research and working with cancer patients. Dyrbye’s “20 percent” is her research evaluating ways to change medical school curriculum to prevent burnout and boost resiliency (see “Burnout begins in medical school,” p. 18).

This requires work on the part of the physician—identifying what you like best about practicing medicine, which may change during the course of a career, and making an effort to focus part of your practice in that area. And allowing physicians to carve out time for that 20 percent requires flexibility on the part of their employers.

**Finding meaning in work**

Over the past three years, Shanafelt has noticed a change in attitude among clinic administrators and CEOs across the country—a desire to make burnout reduction and staff well-being a priority. “Our studies have convinced them that burnout is not only common, but it affects quality of care. As its prevalence has increased, burnout has affected staff morale and caused recruitment and retention problems,” West says.

The Mayo team recently conducted one of the first trials of an organization-wide intervention aimed at reducing burnout. They randomized 75 internal medicine physicians into two groups. The first group was given one hour every other week for works with residents. Other days he does research or sees patients. He says it’s doing research that really stokes his fire.

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nine months to do whatever they wanted to do that was work-related, such as catch up on paperwork and phone calls. The second group met in small groups led by a facilitator for the same amount of time. During those meetings, members shared experiences and advice on such things as medical mistakes, everyday frustrations, dealing with challenging patients, how to stay resilient, how to get more meaning from work and work-life balance. A third group of physicians simply worked as usual. All groups completed longitudinal well-being surveys.

Both groups that got the hour of protected time every other week lowered their burnout scores. But the group that met in small groups boosted their scores related to seeing meaning in their work and lowered their scores related to professional cynicism. “Boosting the meaning you get from work is a huge inoculant against burnout,” West says.

Although improvements in their scores on emotional exhaustion, overall burnout, mental well-being, depressive symptoms, empathy, stress and job satisfaction were less striking, those who met in the facilitated small groups still outperformed those in the other two groups in all of these areas. “The benefits these physicians got were still present one year after they last met,” West says. “Something about that experience produced substantial, sustainable benefits.”

The study results are still being reviewed. “Assuming the study passes the scientific acid test,” West says, “we’ll explore ways to deploy the small-group intervention at Mayo and look for ways to lower its cost.” The average group session participant attended 12 hours of meetings over the nine-month intervention period. “That doesn’t seem like a high price to pay for the kind of benefits we saw,” West says. “Studies show that physicians who are more satisfied with their jobs have significantly greater productivity. So this small investment may actually translate into a net gain in productivity and improve clinical outcomes.”

Other organizational changes the researchers are studying include restructuring clinic workflows and responsibilities so physicians can spend more time with patients and less time on phone calls, emails and paperwork.

No magic solution
Shanafelt and his team have learned that preventing burnout is often beyond the control of the individual. “A lot of this is about the attitude of leadership and the organizational culture they encourage. Physicians need to see that their clinic or hospital shares their commitment to patients, values the well-being of staff, and is trying to make the work environment as efficient and positive as possible. Taking care of the care provider team is a critical part of achieving the organization’s goals,” he says, adding that he has had inquiries from other Minnesota health care systems that are interested in finding ways to fight burnout among their physicians. “And organizations that take better care of their physicians have physicians who take better care of their patients.” MM

Howard Bell is a medical writer and frequent contributor to Minnesota Medicine.

BURNOUT BEGINS IN MEDICAL SCHOOL

After reading a 2002 article on burnout among internal medicine residents, Mayo Clinic internist Lotte Dyrbye, M.D., MHPE, approached the author and Mayo colleague Tait Shanafelt, M.D., about studying whether it began even earlier—in medical school.

In their first study together, the results of which were published in Academic Medicine in 2006, they found that half of 545 medical students surveyed suffered from burnout. “They enter medical school with mental health profiles similar to their peers who don’t go to medical school,” Dyrbye says. “Something about medical school tips them over the edge.” Dyrbye also found that students suffering burnout are the ones who have the least empathy for patients.

In another study, published in 2008 in Annals of Internal Medicine, Dyrbye analyzed 2,248 survey responses from medical students at seven medical schools and again found that nearly half met the criteria for burnout. In addition, 11% of surveyed students reported having suicidal thoughts in the past year—a rate substantially higher than age-matched peers who were not in medical school. “These are incredibly disturbing findings,” Dyrbye says. “We need to do a better job helping students acquire the skills they need to thrive in medicine. We need to optimize the learning environment and deal thoughtfully with the exploding curriculum that we are asking students to master.”

The American Medical Association just awarded Mayo Clinic a $1 million grant to develop curriculum that among other things increases medical student personal wellness. “Our goal,” Dyrbye says, “is to ensure that students thrive and that they are prepared for the realities of practicing medicine.”—H.B.