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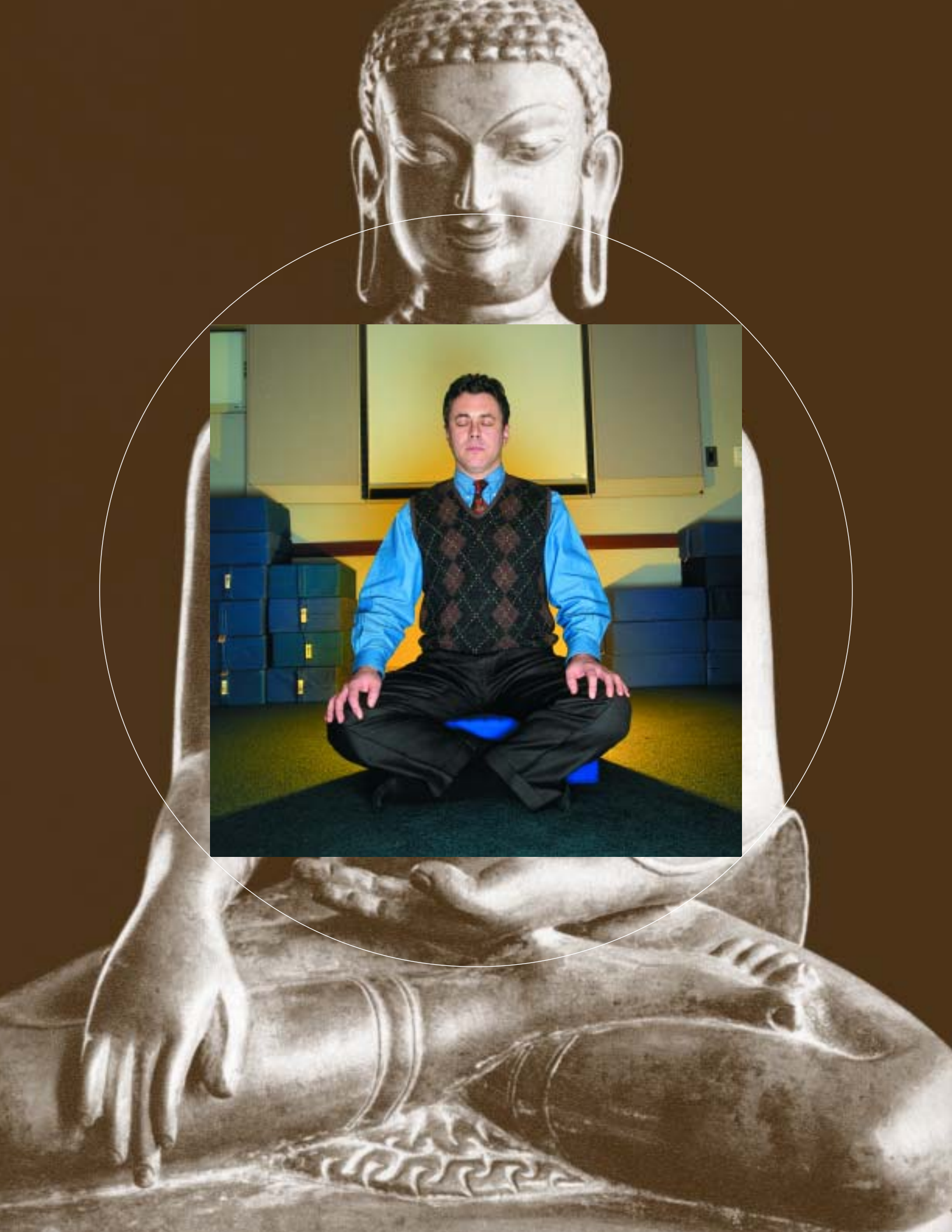


Benefits of Mindful Meditation
PREVENTING THE SPREAD OF AIDS
ROBOTIC SURGERY

CONTENTS

<p>4</p>	<p>CHANGING THEIR MINDS <i>By Carole Bernstein</i></p>		<p>You don't have to be a practicing Buddhist to reap the benefits of mindfulness meditation, says Michael Baime, M.D. '81, who teaches the technique to both patients and other health-care professionals. According to Baime, mindfulness meditation can help people reduce stress and cultivate a greater sense of well-being. In the past few years, he's gained a lot of believers.</p>
<p>10</p>	<p>HELENE GAYLE, AGENT OF PREVENTION <i>By John Shea</i></p>		<p>After several years at the Centers for Disease Control and Prevention, Helene Gayle, M.D. '81, M.P.H., had become one of the nation's most recognized spokespersons on the topic of HIV/AIDS. In her new position at what she calls "the largest philanthropic agency in the country," she continues to try to make a difference in the lives of people, especially the poor and the underserved.</p>
<p>18</p>	<p>ROBOTIC SURGERY ARRIVES AT HUP <i>By Sally Sapega</i></p>		<p>According to Y. Joseph Woo, M.D. '92, using the da Vinci robotic surgical system, surgeons no longer have to make the standard incision through the sternum when performing a coronary artery bypass graft. Now, they can just "sneak in between the ribs," using miniaturized instruments that duplicate the surgeon's hand and wrist movements.</p>
<p>21</p>	<p>VISITING CHINA FOR A GOOD CAUSE</p>		<p>In April, the Philadelphia Antiques Show will make its 45th annual appearance, once again raising money to enhance patient care at Penn's Medical Center. This year, the special loan exhibition is "Patterns of Pride: Historical Blue Staffordshire," a collection of Staffordshire china dating from 1820 to 1860.</p>
<p>22</p>	<p>CATCHING UP WITH THE CLASS OF 1952</p>		<p>Some members of the Class of 1952 remained at Penn, pursuing research and teaching the younger generations; others went as far as Alaska, Kenya, or Zaire as practitioners and medical missionaries. One distinguished award-winner claims to have forgotten all his academic courses at Penn. Another says his training helped set him up for the practice of "otosinorhinopharyngolaryngotracheobronchoesophagology." Have a look.</p>

<p>DEPARTMENTS</p>	<p>EDITOR'S NOTE Hard Times</p>	<p>Inside Front ALUMNI NEWS 29 Progress Notes</p>
<p>LETTERS</p> <p>VITAL SIGNS An Agreement Is Dissolved Developments in Development</p>	<p>2</p> <p>3</p>	<p>THE LAST WORD Inside back Needed: More Women as Leaders in Medicine</p>
<p>STAFF</p>	<p>JOHN R. SHEA, Ph.D.</p> <p>LEWIS & NOBEL DESIGN</p>	<p><i>Editor</i></p> <p><i>Design / Art Direction</i></p>
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Changing Their Minds

by Carole Bernstein

Michael Baime teaches mindfulness meditation to help people reduce stress in their lives and cultivate a greater sense of well-being. For health-care professionals, he says, the approach can enhance interactions with patients.

On a chilly winter evening in an office building in downtown Philadelphia, fifteen or so people are sitting on the floor of a dimly lit room silently watching as a fortyish man with black glasses, wearing dress pants and a dark turtleneck and sweater, lies on his back in the center of the room. Resting his hands at his sides, he slowly rolls his hips up and over his head until his feet come to point at the wall behind him, all the while calmly narrating what he's doing so the group can try it, too. It seems odd to be sitting and watching somebody do this. Suddenly, some change falls out of his pockets and rolls around on the floor. People laugh. The man – Michael J. Baime, M.D. '81, a clinical assistant professor of medicine at Penn – is not fazed in the least. "But first, make sure you take the change out of your pockets," he says in the same tone of voice, maintaining the same position, smiling.

This unflappable quality is a striking thing about Dr. Baime, and it is one he tries to cultivate in his students – the group sitting around him on the floor – in the Penn Program for Stress Management. Things rattle us in our lives. Little things like change falling out of our pockets, big things like family troubles and serious illness. Many of these events are beyond our control. But what we can control, says Baime, is our response – anger, frustration, anxiety, fear, guilt, sadness, pain. Baime teaches stress reduction through his own variety of what is called mindfulness meditation, a system of meditation he has gleaned from traditional Tibetan Buddhist practice. His class offers four linked methods to culti-

vate mindfulness: sitting meditation, which uses the breath to focus awareness and remain in the present moment; the "body scan," a guided, systematic way to relax each part of the body; yoga exercises; and meditation while walking outdoors. The last two have less to do with fitness than with training the mind. After all, as Baime asks his students, "What good is meditation if you go back to acting the same way for the rest of the day?" He explains that the yoga and walking

activities are ways to practice mindfulness while moving around and performing everyday activities.

According to Baime, mindfulness reduces stress by inserting a space, a cushion, into an escalating emotional response. It gives you time to think about *how* you'll respond instead of just responding, which is what most people do. Maybe your daughter is throwing a tantrum in the supermarket, or your boss just dumped an impossible Friday afternoon pile of work on your desk, or you are scheduled for another round of chemotherapy tomorrow

morning. Baime draws a long horizontal arrow on a blackboard to illustrate a rising stress reaction. He then draws a circle in the middle of the line, interrupting it, creating a bubble: this is mindfulness. "So, we may then decide to take another path." He draws another arrow curving down and away from the first one, which represents how we might avoid the shouting argument, the feeling of helplessness, the sleepless night.

Although the people who enroll in the stress management class are distinct from Baime's regular pri-



Michael Baime has adapted Buddhist meditation for his stress-management program. During a recent session, he is surrounded by Penn medical students.

mary-care patients, many of them do have medical issues: often, the problems are serious and incurable ones like cancer, arthritis, fibromyalgia, insomnia, chronic pain, and lower back pain. The people come seeking not a cure but a complement to their continuing medical treatment. Other class participants come to enhance their lives by applying meditation to the everyday stresses of job and family. They tend to be busy professionals: lawyers, doctors, nurses, psychotherapists.

One enthusiastic recent graduate is Tom O'Neil, the 53-year-old head of the Philadelphia-based advertising agency Blu Rhino. "I was addicted to stress," says O'Neil. "Advertising's an insane business. The adrenaline would flow only when some crisis was happening, and I didn't know any other way to live." When he was diagnosed with coronary artery disease and sleep apnea, he decided to seek some form of stress reduction. Baime's class, says O'Neil, "helped me in every aspect of my life. An idea like 'We are not our thoughts, and we are not our emotions' is something I wish I'd learned when I was sixteen." O'Neil reports that he meditates daily; he also exercises regularly after not doing so for many years. Mindfulness, he says, helps him stay with his yoga program. "When you're in the middle of exercise, instead of that grueling feeling of 'why am I doing this', you feel your body and sense what's going on. That can make it fun and interesting." O'Neil says that his wife is interested in taking the stress-management course as well.

The eight-week public course runs two and half hours a session (and is the reason an internist might spend his evenings assuming odd positions on the floor of an office building). Baime also offers a course in mindfulness meditation specifically designed for health-care professionals and medical students. In these workshops, Baime weaves together two major threads of his life: his training in conventional Western medicine, and the Tibetan Buddhist meditation he has practiced since he was a teenager.

It appears that meditation found Baime, rather than the reverse. When he was very young, he says, "I'd have these experiences – sudden shifts in my awareness, where I'd become fully present and my awareness would seem very vast, with a sense of depth and profundity to it. It was one of the most meaningful things to me as a young child." Later on, trying to understand what the experience was, he began reading about Buddhist meditation and wanted to know more. "But for a pre-adolescent in suburban Pitts-

the steering committee on alternative therapies at Penn, he himself does not practice any other complementary or alternative approaches such as herbalism or acupuncture. "I consider myself really a straightforward, traditional doctor. I just do this one thing that's compelling to me." His wife, Regina Voit Baime, M. D. '89, is a primary-care physician in the same Philadelphia office and has been involved with the stress-management program since its inception. She currently divides her time between practicing



Baime's program incorporates cognitive therapy and systems theory in addition to meditation.

burgh, there weren't a lot of opportunities to learn meditation. The only place I could find made me wait until I was fourteen."

After graduating from Penn's medical school in 1981, Baime did his internship, residency, and fellowship at Graduate Hospital. Certified in internal and geriatric medicine, he now has a busy primary-care practice in Philadelphia that is part of Penn's Health System while he also serves as director of the Penn Program for Stress Management. Although Baime is on

medicine and raising their two young children.

Baime says that it wasn't long after becoming a doctor that he began to feel dissatisfaction with what conventional American medicine had to offer. He sensed that many of the people who came to his office wanted "something less like a prescription and more like meditation." He became interested in ways to present meditation apart from Buddhism. Trained in a traditional religious system, Baime struggled over time to identify the

elements that would be the most essential and helpful for Western patients, which eventually yielded his particular brand of mindfulness meditation.

Baime explains mindfulness meditation as “a group of practices to teach you to maintain a more full, deep, and rich awareness of the present moment and to let that awareness become stable and continuous.” To put it more simply, he says, it is using awareness to enhance your quality of life. The core procedure – a sustained, carefully

do more broadly with all religions and spirituality.” The only thing that seems recognizably non-Western about the stress management class – besides the yoga stretches – is Baime’s use of a gold finger cymbal whose sonorous chime signals the beginnings and endings of activities. Pressed for a technical term, he calls it a ting sha, but adds, “You can just say bell.”

The traditional Buddhist shrine in Baime’s private office reminds one that he himself is a practitioner of Buddhism. Carefully arranged

profound meditation and prayer. Newberg’s aim, as described in the May 7, 2001, issue of *Newsweek*, was to “uncover the neurological underpinnings of spiritual and mystical experiences.” Newberg’s book *Why God Won’t Go Away: Brain Science and the Biology of Belief*, appeared two years ago.)

Incorporated into the stress management program are concepts borrowed from cognitive therapy and systems theory. With cognitive therapy, Baime explains, you learn to look at your thoughts in order to notice when they become exaggeratedly catastrophic or otherwise unrealistic. His program also leads people to examine their thoughts, but he believes you can do that more successfully if you’ve first trained your awareness, through meditation, to monitor your moment-by-moment changes of mind. He also acknowledges a debt to systems theory. “We teach people that they can have an impact on the systems they’re a part of – at work and at home – just by changing their own interaction with it, their own quality of being.”

In 1999 Baime began teaching mindfulness meditation to first- and second-year medical students at Penn. Two years later, with funding from the Edna G. Kynett Memorial Foundation, he was able to offer a course called “Healing the Heart and Mind” to more than 100 health-care professionals and medical students in the Philadelphia area. (It was offered again last year.) The course introduces practitioners to stress management techniques and “the benefits of mindfulness-based practices.” It also looks at medical research on the link between stress and heart disease. Baime quotes research findings that psychosocial factors, such as depression and social isolation, are the leading cause of almost half of all deaths from heart disease. Yet because these factors are difficult to define, measure, and treat, their impact is often overlooked. At the same time, health-care professionals themselves are frequently burdened by stress, which according to research has intensified over the last fifteen years.



Baime clarifies a point with Roger Stumacher, a Penn medical student.

focused concentration on one’s own breathing – sounds simple enough, but takes dedicated practice to achieve.

In Baime’s view, meditation as he teaches it is independent of its cultural and historical origins. “For example, I’m working on a program to teach priests at a Philadelphia abbey these meditation techniques as a tool for them to enhance their contemplative practice. There’s nothing Buddhist about it – it uses a general principle of mind, although it has to

are a blue wall hanging, a framed picture that Baime describes as reflecting traditional religious iconography, three gold statuettes, beads, and bowls. He notes that most of the objects were gifts from patients or co-workers. (Baime once lent his Buddhist meditation skills to an unusual research project conducted by his Penn colleague Andrew B. Newberg, M.D. ’93. Baime was among a small group of Tibetan Buddhists and Franciscan nuns who allowed Newberg to scan their brains with a SPECT camera during

Sharon L. Kolasinski, M. D., a rheumatologist at HUP, was among those who took part in Healing the Heart and Mind. She says that while she appreciated the extensive review of research on stress and its impact on health, the main benefit to her from the course was learning mindfulness meditation. She has continued to meditate regularly, and she particularly recalls one special session in which the 100 or so participants gathered to meditate in various ways, in silence, for an entire day. "It was extraordinary," says Kolasinski. "It's a more powerful experience to meditate in a group. I wouldn't have known that was true." Professionally, she feels that mindfulness helps keep her "on a more even keel."

When Baime talks about stress reduction and mindfulness meditation for health-care professionals, he speaks carefully and with intensity, as if wanting to choose just the right words for a subject close to his heart. "We include techniques that allow doctors to 'come back' – to be fully present with the person they're examining and to pay attention to how their presence affects the interaction. This is an important part of healing we've lost touch with. Our culture as a whole is not so happy with the health-care profession, because we've forgotten about this part of the process which everyone wants and needs."

Doctors trained in mindfulness meditation can greatly increase their capacity to help patients, according to Baime. Naturally, they can't teach all their patients to meditate – it would be too time-consuming to do correctly. Yet Baime says they can provide "simple fixes, like asking patients to stop and take a breath, to defuse the reactivity that can go out of control. But the most important thing we do is to give health professionals back their presence, their being, in the clinical encounter."

Baime illustrates with a description of a typical primary-care visit. "The doctor has fifteen minutes to hear your story, get you into a gown, examine your body and deal with



Left: Baime confers with Maureen Disbot on patient-safety issues. Right: One of the physicians in Baime's UPHS practice is Regina Voit Baime, M.D. '89.



all of its complexity; come to a conclusion himself, which means he is distracted even while he's in the room; explain it to you, prescribe a therapy, discuss the pros and cons, and then if he has a few minutes, chat about how you're doing. Then it's the next fifteen minutes and the next patient. If you do that all day every day, it's easy for it to become mechanical." But if doctors can "learn to un-do some of the speed and distractions" and enhance their communication, empathy, and compassion through mindfulness meditation, Baime is confident that their patients will sense the change and respond. It can make the difference, says Baime, between "whether a patient feels she's been on an assembly line and been dispensed a pill at the end, or has actually been with a person who cares about her."

Kolasinski, for one, needs no persuading. "Dr. Baime is certainly correct that if you bring mindfulness to your interaction with your patient, it is a richer experience, a deeper interaction," she says. "It means you are present for that person at that moment, which ultimately is what we want to do as physicians. And absolutely, when I am more mindful, patients notice it."

In Baime's view, the mindfulness approach can also help doctors and nurses recapture their original motivation to go into health care.

As he puts it, they didn't go into it to write prescriptions or take vital signs, but "to be with people and help them." Baime believes that teaching mindfulness to health professionals can help "change the momentum" of our current culture of medicine, at specific institutions like UPHS and across the country. "If mindfulness could be built into the system, it wouldn't be necessary for every person to practice meditation, but the way we collectively manifest as an institution and a culture would be changed."

Can practicing mindfulness meditation help everyone? Baime says that someone who is severely depressed or anxious may have trouble learning it; they are not able to "settle down enough to look at their mind." Sometimes, people seek to enroll in the public class as a substitute for psychotherapy, and Baime generally recommends that they get the therapy first. He emphasizes that meditation and psychotherapy are completely different, and that meditation is "not right for everyone or effective for every problem." As he explains, "Just because meditation has to do with the mind and makes people less depressed doesn't mean it's a substitute for, say, medication for a major depressive episode. I have no bias against drugs, which can be lifesaving."

Baime also distinguishes what



The faculty lounge of Penn's Biomedical Research Building becomes a site for mindful meditation.

he does from alternative (as opposed to complementary) medicine, since his programs are not presented as a replacement for conventional medical treatment. He reports little resistance from his fellow health-care professionals to his ideas. "Everybody can agree with enhancing quality of life. People say they feel better and experience less anxiety, depression, anger, and physical discomfort after taking the classes. It's hard to argue with that." Using a psychometric measure called the Profile of Mood States (POMS), Baime has surveyed graduates of his sessions. One striking result was a self-reported 49 percent reduction in anger among the public class participants. In addition, health-care participants reported a 33 percent drop in both their anger and fatigue levels.

According to Maureen Disbot, corporate director of the Health System's Clinical Effectiveness and Quality Improvement program, her office has had preliminary discussions with Baime about adapting the principles of mindful practice as a useful tool for patient safety. P. J. Brennan, M.D., who heads CEQI as Penn's chief of health-care quality and patient safety, envisions Baime's program as a core component of the patient-safety plan. Both he and Disbot appreciate Baime's shared, collab-

orative model. As Disbot sees it, mindfulness training has both personal and professional benefits for health-care workers, "whether they're sitting at a desk or at a patient's bedside." She points out that Victoria Rich, Ph.D., R.N., HUP's chief nursing officer, is also an advocate and practitioner of mindfulness and is aware of its potential. Rich saw positive results when it was introduced at her former hospital in Tampa.

The last couple of years have seen increasing recognition for Baime's work. He has been interviewed by Ted Koppel on ABC's *Nightline* and by Terry Gross on WHYY's *Fresh Air*, among other media appearances. His programs are burgeoning, too: in 2001, an Arcadia Foundation grant made possible a meditation class for 25 breast cancer patients at Penn, called "Refreshing the Body, Renewing the Mind." POMS results were impressive here, too: participants reported 51 percent and 44 percent drops in anxiety and depression respectively. Philadelphia's Department of Human Services has asked him to develop programs for parents who have had their children separated from them by the courts, and for Hispanic adolescents as part of a program to prevent violence.

For Baime, the most satisfying thing about teaching meditation is that it can "help people change

their lives in directions that really matter to them." By stabilizing their awareness, it helps them look more directly at what he calls their "inner compass," the part that guides them and tells them what matters – the part that often gets lost in the busyness and distraction we all face. Baime says he receives letters from people who went through the program years before, who write to say things like, "Just wanted to let you know I'm doing great, I'm still practicing every day, it changed my life, thank you." As Baime says, "That's just the best."

The \$64,000 question, of course, is whether meditation can actually reduce, reverse, or prevent disease. Baime confronts the questions: "What we know – what we can prove – is that people report subjectively less distress in many ways: less pain, less anxiety, and the like. They use more effective coping strategies; they feel less fatigue and more energy in their bodies; they feel better." He also refers to the tremendous body of literature that suggests that certain psychological variables are associated with better or worse outcomes in many medical conditions.

Yet, as Baime notes, all that doesn't prove that using mindfulness to affect those variables can change the course of a disease. Investigating the physiological effects of medication further will be a challenge that stretches into the next generation of researchers, he believes. Baime hopes to do research in understanding the psychophysiology of attention, and he is applying for grants to study the impact of meditation on breast cancer, coronary heart disease, and multiple sclerosis. "There are a lot of arenas where it could be used, medical problems where psychological and social variables seem to affect outcomes," he says. "You could spend a whole career – which I guess I'm in the middle of doing – trying to flesh that out." ■

Carol Bernstein, a Philadelphia free-lance writer, wrote about two Canadian doctors at HUP for the Fall 2002 issue of Penn Medicine.