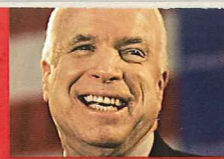




**Clinton & McCain: Happy Returns
But Will the South Be So Kind?**



U.S. News & WORLD REPORT

JANUARY 21, 2008

Alternative Medicine Goes Mainstream

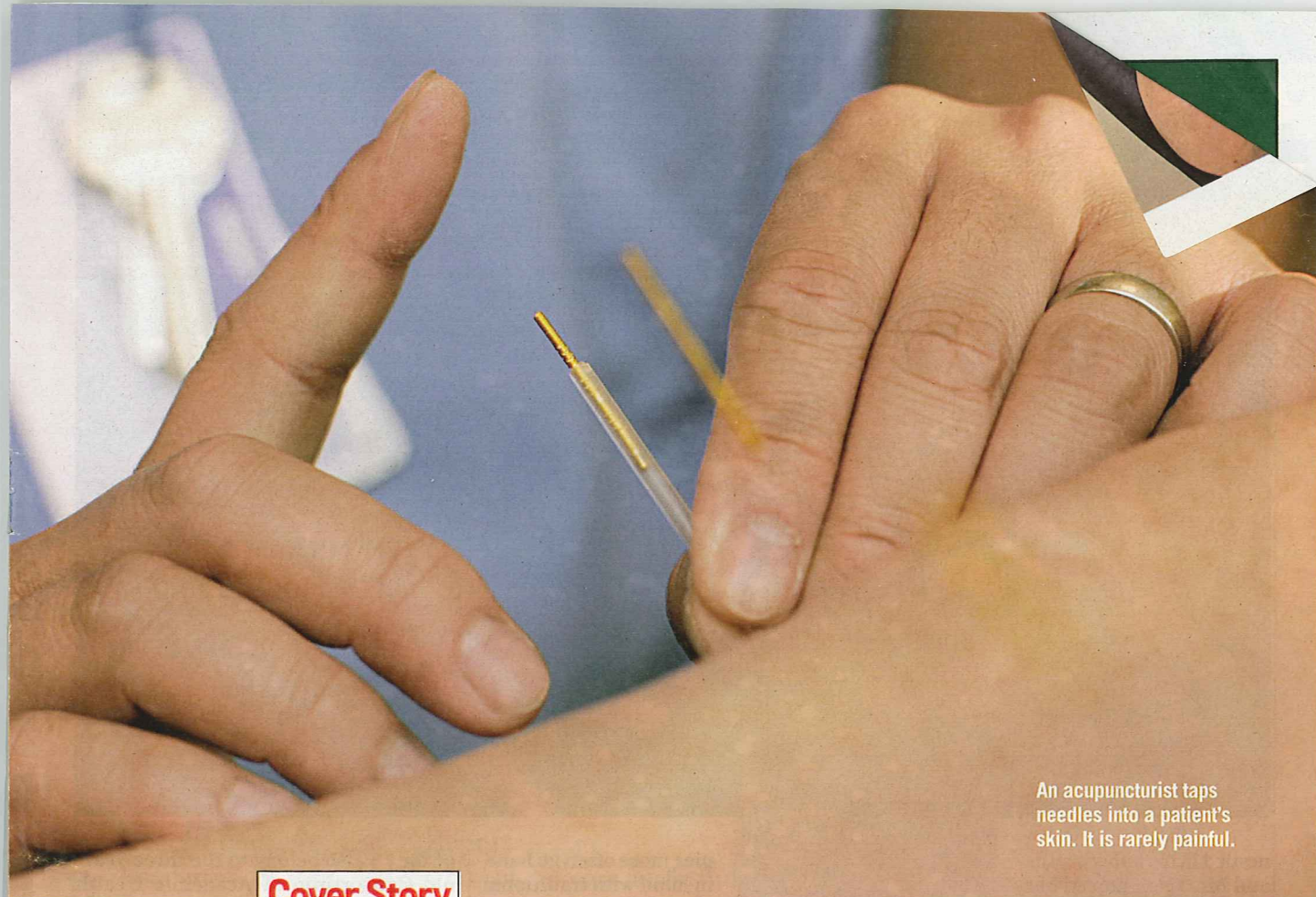
Top hospitals are now embracing
such unconventional techniques
as acupuncture, homeopathy,
and energy healing.

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An acupuncturist taps needles into a patient's skin. It is rarely painful.

Cover Story

Embracing Alternative Care

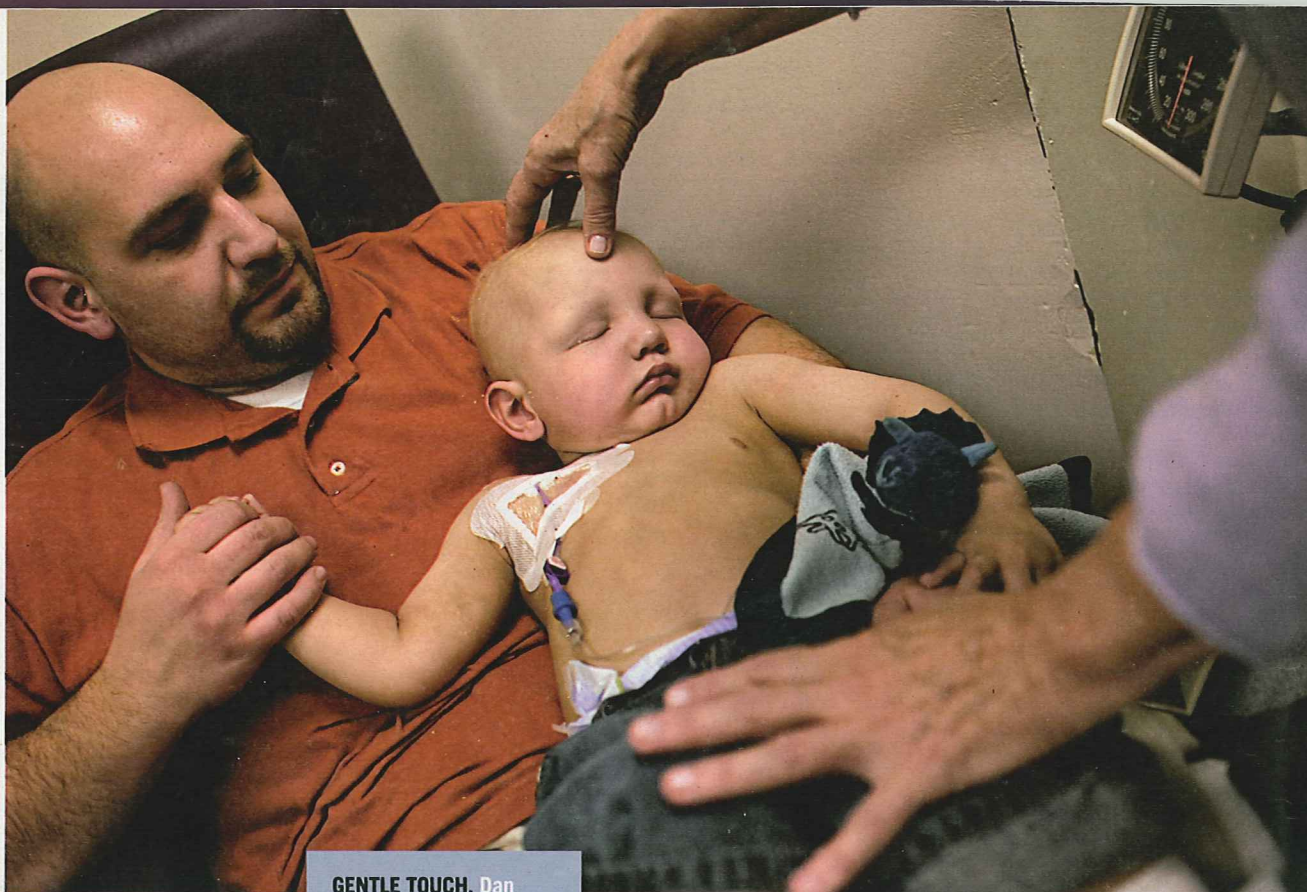
TOP HOSPITALS PUT UNORTHODOX THERAPIES INTO PRACTICE

By Avery Comarow

To be blunt, if my wife and I didn't think it was helping him, we wouldn't have continued with it," says Dan Polley. He's talking about Mikey, the Polleys' 2¹/₂-year-old in the next room, who was diagnosed with acute lymphocytic leukemia when he was 6 months old. Chemotherapy, radiation, and a bone marrow transplant have been crucial elements of Mikey's treatment. But the "it" his father speaks of is nothing like these aggressive, costly, and heav-

ily researched exemplars of western care—it is a kind of touch therapy, from the camp of alternative medicine. Gentle and benign, "healing touch" is intended to rebalance the energy field that its practitioners believe surrounds the body and flows through it along defined pathways, affecting health when disrupted. Several times a week, therapist Lynne Morrison spends 20 minutes unblocking and smoothing Mikey's energy field, which energy healers like Morrison say they can feel and correct.

Before a recent session, Mikey was grouchy, drawing up his legs and issuing periodic yowls. His stomach hurt, said his father. But as the little boy



JON LOWENSTEIN—AURORA FOR US&WR

GENTLE TOUCH. Dan Polley's 2 1/2-year-old son, Mikey, is in a study to see if touch therapy can make transplanted bone marrow stem cells "take" sooner.

nestled in his father's arms and Morrison moved her hands around his body, lightly resting them here and then there, his tenseness loosened and he quieted for a few minutes at a time. The Polleys believe that the therapy not only calms their son but is aiding his return to health.

The setting for the unorthodox therapy—an academic medical center—would have been startling just five or 10 years ago. Morrison is on the staff of Children's Memorial Hospital in Chicago, a hard-nosed, tough-cases, research-oriented emblem of western medicine. It perennially ranks among America's premier hospitals and is the principal pediatric teaching hospital for Northwestern University's Feinberg School of Medicine. And Mikey is only one of many children there receiving care that not long ago was called alternative medicine. Now it is more often called CAM, for complementary and alternative medicine, or integrative medicine, to avoid the loaded "alternative." The message the new labels are meant to convey is that the thera-

pies more often go hand in hand with traditional medicine than substitute for it.

Children's Memorial is just one of many academic hospitals where unconventional therapies have found a home. Elite centers like the Mayo Clinic, Duke University Medical Center, and the University of California—San Francisco now offer acupuncture, massage, and other CAM services. All 18 hospitals on *U.S. News's* most recent "America's Best Hospitals" superselective Honor Roll provide CAM of some type. Fifteen

of the 18 also belong to the three-year-old Consortium of Academic Health Centers for Integrative Medicine, 36 U.S. teaching hospitals pushing to blend CAM with traditional care.

Thicket of therapies. Each center has its own notion of CAM and how best to fit it into the medical mix, which can be challenging. "There is rarely a consensus among CAM experts on the optimal product, dose, or intended users," states a report from the National Center for Complementary and Alternative Medicine, an arm of the National Institutes of Health charged with doling out research funds and tidying the thicket of therapies deemed to fall within CAM's broad reach.

At one extreme are found techniques such as yoga and massage, acknowledged by the most hard-line skeptics to have some benefit, if only to lower stress and anxiety. At the other are therapies that even many who applaud CAM's newfound academic popularity call "woo-woo medicine" because of the sheer implausibility of their rationale. Homeopathy (box, Page 38), which involves remedies often lacking a single molecule of active substance, is the poster

TOUCH THERAPY

WHAT IS IT? An "energy therapy" that is said to rebalance the body's *qi*, or energy flow, to relieve stress and discomfort. The practitioner moves her hands around or on the patient's body to evaluate his energy field and then smooths out imbalances with further hand motions ("healing touch") or actual touching ("therapeutic touch").

SUPPORTERS SAY: Touch therapy has an undisputed healing role. In a 2003 study, for example, healing touch lowered pain, blood pressure, fatigue, and

emotional problems in cancer patients getting chemotherapy.

CRITICS SAY: Benefits may be attributable to the effects of relaxation, and the basic premise is dubious. In an experiment described in 1998 in the *Journal of the American Medical Association*, 21 practitioners failed a test to see if they could consistently detect the energy field of an investigator's hand positioned over one of their own.

RISKS: Minimal—a few reports of headaches, crying, anxiety, dizziness, and nausea.

Cover Story: Alternative Medicine

child; some would add energy therapies such as healing touch. The broad middle takes in acupuncture, herbal medicine, and other CAM approaches that seem to benefit some people with certain conditions.

Until the mid-1990s, most academic centers treated CAM like a pack of scruffy mutts, noisy and unworthy of notice. A large pot of federal and foundation research funds—now close to \$250 million per year just from NCCAM and the National Cancer Institute, plus tens of millions more from private donors such as the Bravewell Collaborative—helped turn that sniffy attitude into solicitous attention, says longtime CAM commentator Donald Marcus. “The funding gave them respect from the medical school community,” says Marcus, a professor of medicine and immunology at Baylor College of Medicine in Houston, where he has long taught a CAM course. A survey of hospitals found that 27 percent offered CAM in 2005, up from 8 percent in 1998. At the Cleveland Clinic, for example, NIH money is behind a clinical trial to see whether reiki (box, Page 40), another energy therapy, can reduce stress and anxiety in prostate cancer patients.

The integrative medicine program at Children’s Memorial got off the ground in 2003 with \$1.7 million in foundation seed money and is now chasing NIH grants. David Steinhorn, a pediatric intensivist and medical director of the hospital’s CAM program, says several privately funded trials, including Mikey’s, are underway or in the works. Steinhorn is a passionate champion of investigating CAM therapies, no matter how unlikely, if he believes they may help patients and are safe. “I’m a very serious, hardcore ICU doctor, but I have seen these therapies benefit my patients, even if I don’t know how,” he says.

Patient access. CAM’s ascendance isn’t entirely driven by money—researchers make frequent references to obligation. “We want patients to have access to these therapies in a responsible fashion,” says Lisa Corbin, medical director of the Cen-

ACUPUNCTURE

WHAT IS IT? A traditional Chinese energy therapy. Fine needles are inserted into the skin—10 or so in a typical session—at points called meridians to free blocked *qi*.

SUPPORTERS SAY: Acupuncture’s proven neurobiological effect has been widely shown to help relieve pain and nausea and improve function—for example, to ease postoperative and chemotherapy-related nausea and vomiting. In a 2004 study, acupuncture patients with osteoarthritis of the knee had less pain and an increased range of motion.

CRITICS SAY: In studies of patients who get either acupuncture or a sham version, the genuine treatment is rarely more effective. A recent study of lower-back pain showed that real and sham acupuncture worked about the same.

RISKS: Very low, mostly brief side effects such as pain, fainting, or nausea. A few cases of meningitis, collapsed lung, and heart damage have been reported. Most states require disposable needles, so infections are rare.

ter for Integrative Medicine at the University of Colorado Hospital. That implies a public clamor for such services, and patients may indeed talk about and ask for CAM more than they used to (although that isn’t clear). But surveys showing widespread use—like one issued by the Centers for Disease Control and Prevention in 2004 reporting that 62 percent of adult Americans had used some form of CAM in the previous year—

Most academic centers used to treat alternative therapies like a pack of scruffy mutts, noisy and unworthy of notice.

are highly misleading. The big numbers reflect activities such as prayer, which few would consider CAM, and meditation, now routinely prescribed to help lower high blood pressure. The Atkins and Zone diets (“diet-based therapies”) were counted in the CDC survey, too. A more selective reading indicates that about 5 percent used yoga, 1.1 percent acupuncture, and 0.5 percent energy therapy, to pick three more-representative offerings.

The purpose of Mikey’s trial is to put his

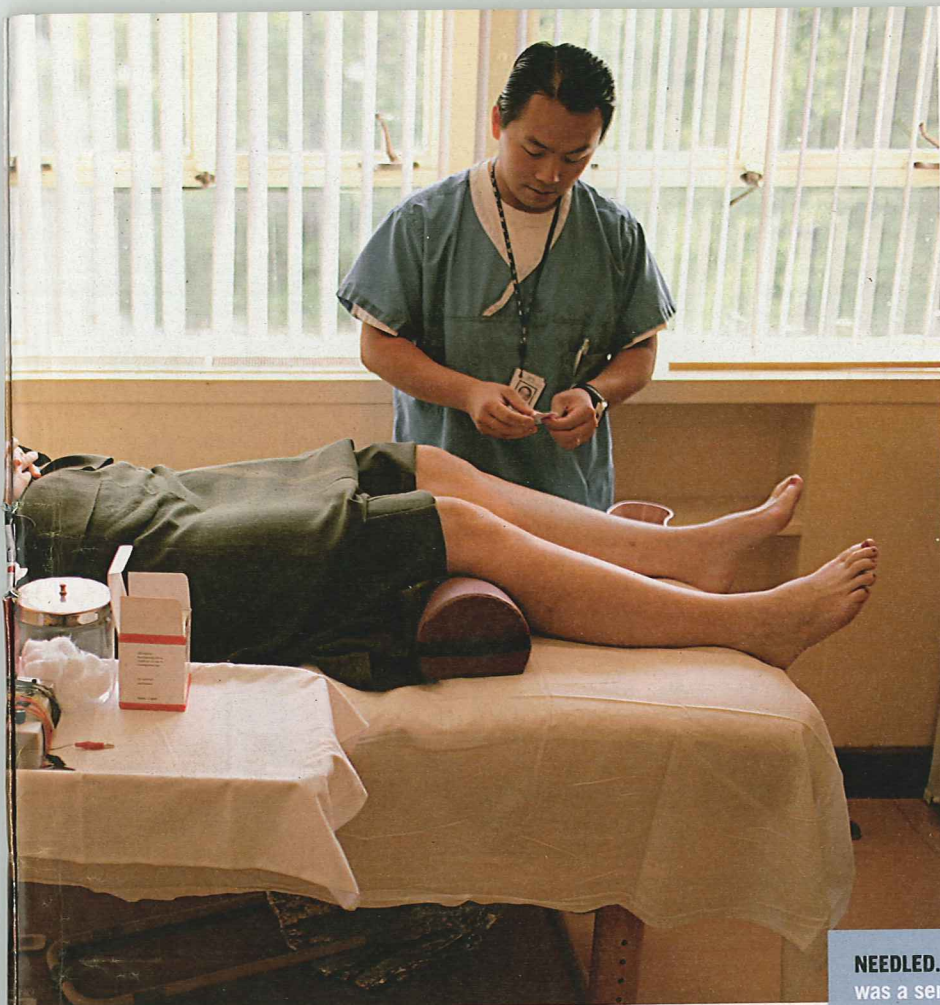
touch therapy to the kind of test demanded by CAM critics: Prove that it can produce medical results beyond simply reducing stress or anxiety. Children having a bone marrow transplant are being divided into two groups. One will receive the therapy before and in the weeks after the marrow transplant. The other group will be visited on the same schedule by staff or volunteers who talk, read, or color with them. (The investigators won’t know

which children are in which group.) The working presumption, says Steinhorn, is that the energy-therapy group will take up the transplanted bone marrow stem cells more readily and with fewer complications, allowing those children to leave the hospital sooner. Early findings should be available by the end of this year.

Most academic hospitals are fairly conservative when it comes to CAM; the usual menu offers acupuncture, yoga, meditation, and variations on massage such as reiki. This tracks the philosophy of An-



JEFFREY MACMILLAN FOR US&WR



NEEDED. Joan Pettit was a serious athlete until her knees gave out. She says acupuncture eased the pain and put off the need for knee-replacement surgery.

drew Weil, founder of the University of Arizona Program in Integrative Medicine and CAM's public face, if there is one. "I teach and urge people to use a sliding scale of evidence," says Weil. "The greater the potential to cause harm, the greater the standard of evidence should be."

A few CAM treatments have demonstrated at least modest results. Massage shows promise for relieving postoperative pain. It was once part of routine postsurgical care, in fact, but was gradually shelved as other demands on nurses' time took priority. And studies demonstrate that acupuncture is somewhat effective at relieving nausea from chemotherapy or surgery and discomfort from dental procedures. It is used at Memorial Sloan-Kettering Cancer Center in New York, among others, for relief of chemotherapy-related nausea, and at many centers for chronic pain—from arthritis, for example.

Damaged and arthritic knees drove Joan Pettit in 2006 to see an acupuncturist at the University of Maryland School of Medicine Center for Integrative Medicine. The 51-year-old suburban Baltimore resident had been a competitive athlete from her high school days and played tennis until about eight years ago,

when both knees would swell and throb painfully. "I'm always looking for something that doesn't have serious side effects," says Pettit, "so the idea of trying acupuncture was very appealing."

The pain and swelling lessened somewhat, and Pettit, a lawyer, returned for repeat sessions—partly, she admits, because they were so soothing: "It's a very pleasant experience. You lie down, they put a nice warm lamp on you, you fall asleep for half an hour, nice music." But she knew the acupuncture was treating the symptoms, not the cause, and she would ultimately face knee replacement. "I still think it gives some pain relief when there's a flare-up," she said last month, "but I've given up. I'm having replacement surgery in April."

Varied results. Disconcertingly, some of acupuncture's claimed successes seem related to the nationality of study authors. A 1998 analysis of 252 published trials found that 51 of the 52 studies conducted by researchers from Asian countries, where acupuncture is uncontroversial, were positive—a 98 percent success rate. Only 53 percent of the trials run by U.S.

investigators showed success, and the rate plummeted to 30 percent in studies involving Canadian, Australian, and New Zealand researchers.

Herbals and dietary supplements are getting considerable attention from researchers, and they're employed at Maryland's integrative medicine center and the Osher Center for Integrative Medicine at the University of California–San Francisco, among other academic hospitals. The effectiveness of most herbal remedies and supplements is largely an open question, and there are issues of toxicity, side effects, and interaction with other medications. Actual dosages in off-the-shelf herbal medications and supplements often are far different from those shown on the label, and the pills may be tainted with heavy metals such as lead and mercury. Yet many of today's powerful medications, among them aspirin, statins, and anticancer drugs, were originally unearthed from trees, fungi, and other natural sources. NCI-backed CAM projects include a test of a six-herb combination, used in traditional Chinese

medicine, for its ability to prevent lung cancer, and addition of mistletoe extract to chemotherapy to treat solid tumors.

Yoga, a physical activity, has understandable benefits for cancer patients, in whom it helps restore strength and flexibility to muscles weakened by treatment.

Alicia Chin has been taking a weekly yoga class for cancer patients at the Osher Center. "Yoga reteaches the muscles how to work, and it makes me feel good," says Chin, a 46-year-old San Franciscan. She had a lumpectomy and had two lymph glands removed last March, followed by radiation, and now is enrolled in a clinical trial of a new chemotherapy regimen. "You get all these drugs pumped into you, you don't want to do anything," says Chin, a paralegal. She still doesn't have the strength to reach up and paint a ceiling, as she puts it, "but it really makes a difference."

Most CAM therapies remain relatively untested, and the majority of academic centers tiptoe around those that seem especially shaky. "We should always insist on a high standard," says Brent Bauer, director of the Mayo Clinic's complementary and integrative medicine program. CAM therapies for cancer patients at Memorial Sloan-Kettering "have to be ra-



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Cover Story

tional, and they have to be evidence-based," says Barrie Cassileth, chief of the integrative medicine service and coauthor of the *Alternative Medicine Handbook* for physicians and other caregivers. Homeopathy is "absurd," she says. "It's like a religion." Nor does she put much faith in energy healing: "Manipulating someone's energy field is nonsense." And while acupuncture is offered at Sloan-Kettering, "we don't do it thinking we're stimulating a vital force—we know we are releasing substances from the brain that make people feel better."

Why not try? Still, some academic hospitals give patients access to highly controversial therapies. Thomas Jefferson University Hospital in Philadelphia and Maryland's integrative medicine center, for example, provide homeopathic services. And patients at Oregon Health and Science University Hospital in Portland and the University of Pittsburgh Medical Center can see a naturopath (box, below), generally a non-M.D. who advocates nonmedical aids such as proper nutrition, colonic irrigation (a polite term for enemas), and special water baths to stay healthy without drugs or surgery.

Those who work in academic CAM programs freely concede there is much about CAM that they do not comprehend—yet—but they also argue that

FOCUS. Alicia Chin credits much of the strength and flexibility she has recovered since her lumpectomy last March to a yoga class for cancer patients.



the standards of western medicine should not block

its use. Just because all of the evidence isn't in, says Donald Abrams, director of clinical programs at UCSF's Osher Center, "should I never try these therapies with my patients?"

A counterargument posed by many critics is that the risks of some therapies are real and the benefits illusory—a placebo effect. That is, even a treatment that does nothing genuine is likely to make you feel better (or worse) if you think it will.

The phenomenon is hardly unique to

A Mixed Bag of Alternative Remedies

This handful of unconventional practices only hints at the breadth of the spectrum. Journals, guidebooks, government resources, and private publications and websites provided the information.

HERBALS AND DIETARY SUPPLEMENTS. Herbs such as echinacea for colds are a key element of traditional Chinese medicine. Dietary supplements range from vitamins and minerals to melatonin for insomnia and psyllium for cholesterol. **Pro/con:** Some herbals, such as green tea and flaxseed,

may turn out to have significant benefits, but few have been rigorously tested for effectiveness, and their safety, purity, and potency are loosely monitored. Dietary supplements also are understudied. Vitamin E for heart health was shown to add rather than reduce risk; glucosamine and chondroitin, however, hold promise for moderate-to-severe knee osteoarthritis.

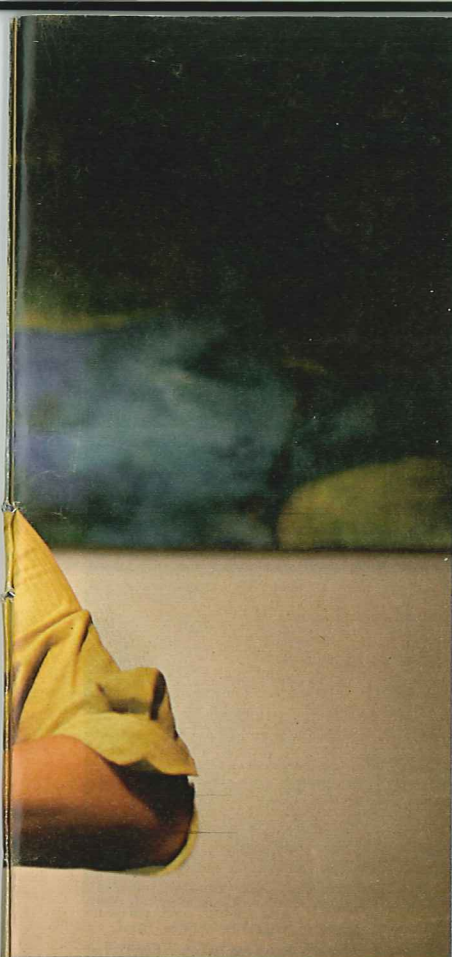
HOMEOPATHY. To treat a malady, a tiny amount of a substance is administered that in large doses would induce symptoms like those caused by the illness—for

flu, say, something that would cause nausea. The substance often is diluted in water to the point that it is undetectable. The water is said to "remember" it. **Pro/con:** Supporters say that homeopathy is safe and often helpful, so gold-standard proof is unnecessary. Large, systematic studies have failed to show its effectiveness for any condition.

MAGNET THERAPY. Permanent magnets (like those in refrigerator magnets) embedded in items such as straps, shoe inserts, and mattress pads are used to treat pain.

Pro/con: The purported benefits have been attributed to the magnetic field's effect on cell function or blood flow. A recent analysis of numerous studies, however, found that for any of several conditions studied, magnets were no better than a placebo. Experts warn that magnets might affect implanted devices such as insulin pumps or pacemakers.

REFLEXOLOGY. Reflexologists believe specific spots on the bottom of the feet are linked to other parts of the body, and massage or applying pressure to a part of the foot addresses problems in the associated organ. **Pro/con:** Reflexology has been shown in preliminary



DAVID BUTOW—REDUX FOR US&W

YOGA

WHAT IS IT? A set of ritualized relaxation and breathing techniques, body positions, and movements derived from Indian philosophy, emphasizing harmony between mind, body, and spirit.

SUPPORTERS SAY: Some studies report that cancer patients who do yoga sleep better and have improved quality of life and lower stress. A study published last month concluded that an intensive yoga program improved the overall health of a small group of adults, reducing stress, anxiety, and depression. And yoga has been found to relieve symptoms of asthma, heart disease, depression, epilepsy, lower-back pain, fatigue, and headache.

CRITICS SAY: Evidence of such benefits is thin and mixed. A 2005 study found that yoga provided no significant benefit for those with mild-to-moderate asthma.

RISKS: Small but real. Overstretching can cause injury or worsen an existing medical problem. Cases of stroke, blood vessel blockage, and damage to the eye, nerves, and spine have been reported.

CAM. Physicians used to hand out inert pills routinely to treat aches and pains. Many still do. A new study found that almost half of the doctors at three Chicago-area medical schools who responded to a survey said they had used a placebo in their practice at least once for anx-

iety, pain, and other problems. About 1 in 12 reported having done so more than 10 times in the past year.

If CAM's successes are due mostly to placebo, writes biostatistician R. Barker Bausell in *Snake Oil Science*, a just published book that turns an analytical eye

on CAM, not everybody who seeks some form of CAM for a throbbing hip or chronic headache will be happy if he paid (probably out of pocket) for care that only fooled him into feeling better. Health insurers generally cover only a few types of CAM, such as acupuncture, and then only for certain conditions.

As research director of the University of Maryland's CAM center from 1999 to 2004, Bausell became disillusioned when none of several rigorous trials that he helped design demonstrated any benefit to CAM. "The results were no better than placebo," he says. "Zip. So I started asking myself, 'What if there's nothing to this?'"

Here is where the argument gets sticky, because the placebo effect often is, well, effective, notes Don Price, a neuroscience professor at the University of Florida who has made the phenomenon his specialty for more than 30 years. In a major review of the placebo effect published this month, he cites two telling studies reported in 2005 and 2007. In both, patients with various aches and pains received either real acupuncture or a sham procedure that felt like acupuncture; the patients didn't know which one they had gotten. Patients in one study were asked if they thought they had received real or fake acupuncture. Pain relief was greater for those who thought they had gotten the real thing, even if they hadn't, than for patients who thought they had got-



JUPITER IMAGES

In reflexology, parts of the foot are thought to be linked to organs.

studies to ease headache pain, severity of premenstrual symptoms, and, in cancer patients, anxiety.

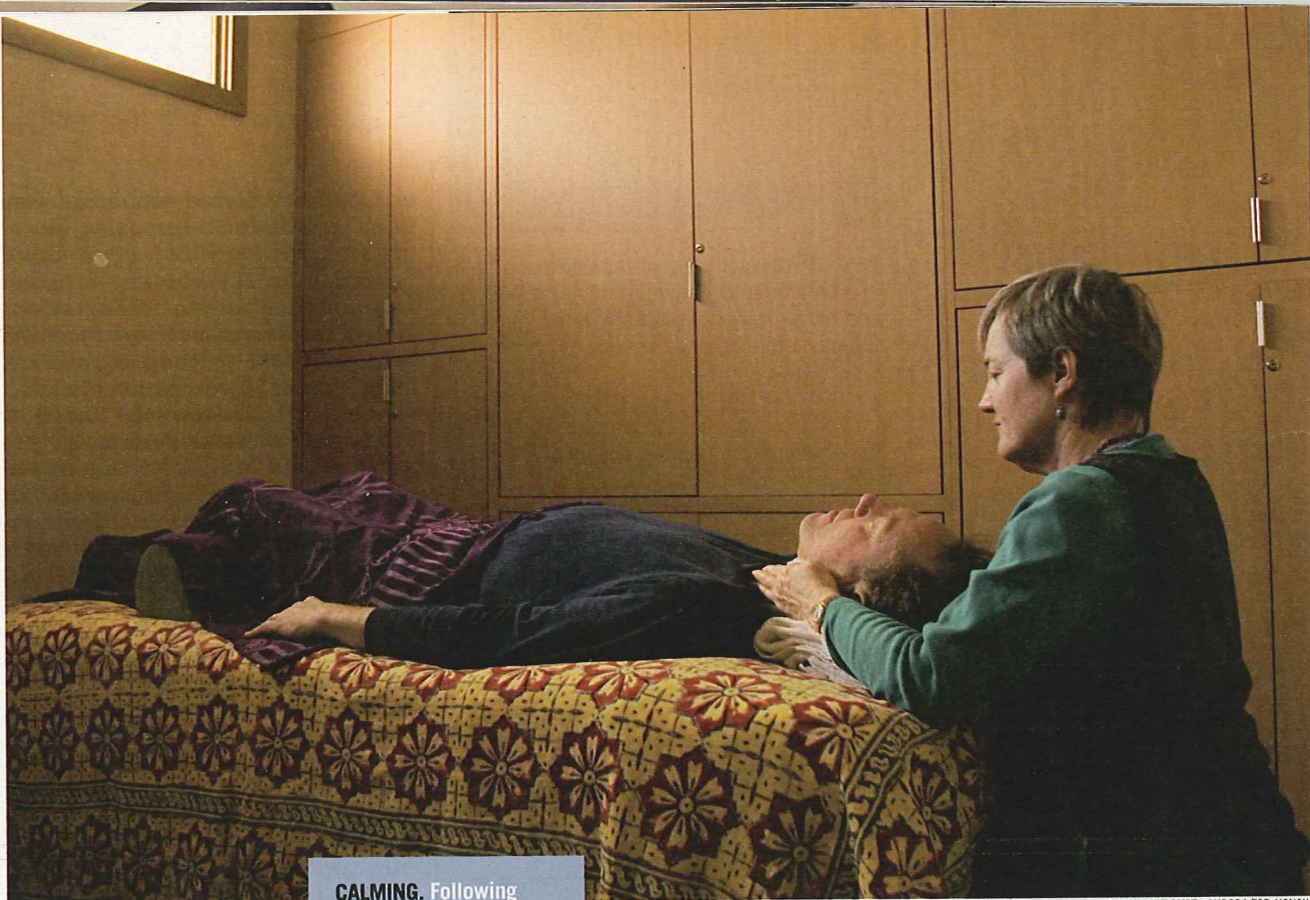
But the evidence that it counters specific diseases is weak. Experts urge caution with foot conditions such as

unhealed wounds, a recent fracture, or active gout.

MEDITATION. Tuning out the everyday by finding a peaceful place and focusing inward on a word, an idea, or the act of breathing is a form of deep relaxation that may have health benefits beyond lowering stress.

Pro/con: An analysis of 311 studies found that the strongest and most consistent benefits were lowered heart rate, blood pressure, and cholesterol. But its authors declined to draw firm conclusions because the studies were not methodologically sound and the results varied widely by the study design and the kind of meditation.

NATUROPATHY. An overall approach to health emphasizing natural prevention and care. It draws on both conventional and unconventional practices, including nutrition, exercise, herbals, and homeopathy. **Pro/con:** Naturopathy promotes a healthful lifestyle by encouraging sound eating habits, physical activity, and contact with nature. But some naturopaths oppose certain childhood vaccinations. And enemalike colonic irrigation, a cleansing therapy favored by many naturopaths, carries a small risk of infection (and a tiny one of bowel perforation) with little if any evidence that it helps. —Lindsay Lyon and January W. Payne



SUSIE POST RUST—AURORA FOR US&W

CALMING. Following cancer surgery, John Munce has had regular sessions with reiki master Karen Ziegler at Duke's Center for Integrative Medicine.

ten the sham version. In the other study, patients were asked how strongly they believed that acupuncture would help them. The stronger their belief, the better the results—whichever treatment they got.

"These folks are very careful to make the distinction between what is based on evidence and what is based on anecdotes," says John Munce, a 53-year-old management consultant from Charlotte, N.C., who is receiving reiki and acupuncture at the Duke Center for Integrative Medicine following surgery for neck cancer in October. "But I don't care. If it's a placebo, give me the damn placebo." The reiki sessions have restored much of the mobility in his shoulder after a nerve had to be cut during surgery, he says, and he values the psychic benefits equally. "I feel as if the reiki is aligning me to heal," says Munce.

CAM frequently gets undeserved credit because of the natural course of illness, say experts. Most of those who seek out CAM, says Bausell, have chronic problems, perhaps arthritic knee pain or fre-

quent headaches, that follow a predictable cycle: build, peak, and recede. Sufferers tend to seek help when their pain is building, and when the pain, as if by magic, begins to recede after they are treated, it is natural to connect the improvement with the therapy.

Won over. Cycles and disputes over illusory cures don't grab Tracy Gaudet. If a treatment works and isn't harmful, says the Durham, N.C., obstetrician-gynecologist, be thankful. Before having a golf-ball-size mass removed from her

neck about three years ago, Gaudet prepped with acupuncture, art therapy, and hypnosis to relieve her symptoms and mentally prepare for the operation. She awoke pain free and never took so much as a Tylenol afterward.

As executive director of Duke Integrative Medicine, Gaudet was especially receptive to CAM. "She was incredibly relaxed," says Duke otolaryngologist David Witsell, Gaudet's surgeon. "It took very little anesthetic to get her to sleep." And while it can take six months after this procedure to relearn how to swallow and speak, "she was smiling and talking and drinking and

laughing the day after surgery," says the surgeon. He and Gaudet recently discussed making the program's CAM services available to all preoperative patients. "That experience with her turned me on to integrative medicine," says Witsell.

"From where I sit," says Gaudet in the center's light-filled lobby, "if we could figure out a way to elicit a full therapeutic response to a placebo, that's not a bad thing—that's a good thing." She considers briefly, then smiles. "I'd call it an 'activated healing response,'" she says. ●

REIKI

WHAT IS IT? One of many traditional Asian energy therapies based on rebalancing the life force known as *qi* after illness, surgery, stress, or other disruption. The therapist's hands are placed at each of 12 to 15 specified points for a few minutes to read and rechannel the patient's *qi*.

SUPPORTERS SAY: Reiki can treat pain and myriad other health conditions. In a small 2003 study, reiki plus standard pain drugs relieved pain and improved quality of life in one

group of cancer patients more than drugs and rest did in another group. Other evidence indicates it may reduce symptoms of psychological distress.

CRITICS SAY: Reiki is soothing, which helps relieve stress and anxiety, but its ability to treat specific medical conditions is unsubstantiated. A 2002 study concluded that it didn't help stroke victims recover better or faster. Evidence that *qi* exists or works as described is absent.

RISKS: Light touching seems completely innocuous.