Good eating, global style

People from Asia have lower rates of most cancers. Mediterranean populations have less heart disease. And French women, apparently, don’t get fat. Research attributes those desirable outcomes largely to what, or how, the people of those areas eat. Most Asian dishes are packed with disease-fighting vegetables, plant proteins, and fiber. Mediterranean cuisine uses heart-healthy olive oil and legumes. French women seem to have mastered moderation: a little cheese, a daily dose of antioxidant-rich red wine, and an occasional indulgence.

Is it possible to improve your own diet by eating at restaurants that serve the foods of those healthier, usually swelter cultures? Or by reproducing their recipes at home?

Yes, in both cases—provided you steer clear of a few pitfalls. The ethnic foods served in stateside restaurants might include a lot more oil, meat, and cheese than traditional versions. As with all restaurant food, dishes might come in super-sized portions and contain a lot of salt. And because the food may be unfamiliar, you might not realize that the exotic-sounding entrée you just ordered is, say, cooked in lard.

In some parts of the country, options for ethnic dining might be limited to the “Big Three”—Chinese, Italian, and Mexican—or to the American-owned chains dishing out those cuisines, like P.F. Chang’s China Bistro, the (Continued on Page 4)

Vegetables in disguise

Even those who resist vegetables or beans might find pleasure, as well as healthful nutrients and spices, in ethnic dishes. The creamy consistency of the pureed chickpeas in hummus or the beans in Mulligatawny soup taste very different from whole-cooked vegetables.
New findings on pain relief
How to harness the brain’s power to control pain perception.

Laura Tibbitts, who has had chronic shoulder pain since a horse-riding accident eight years ago, stared at a computer screen displaying an image of a small flickering flame. As she focused on her pain—visualizing it as a knife stabbing her shoulder—both her pain and the flame on the monitor increased. But when she distanced herself by focusing her thoughts and energy on her big toe, the point farthest from her shoulder, her pain diminished, along with the flame on the screen.

Tibbitts was participating in a Stanford University study that uses a new technology called functional magnetic resonance imaging (fMRI) to display the brain’s response to pain and to train patients to change that reaction. The machine focuses on a brain region believed to control perception and regulation of pain; the flame is a computer-generated representation of increased or decreased blood flow to that area.

The Stanford research and related work elsewhere are creating new approaches to pain management. “We’re learning that the human brain has an innate and largely untapped capacity for controlling pain,” says Jon-Kar Zubieta, M.D., a pain researcher at the University of Michigan. The prospect of using that capacity is particularly important because most painkilling medications cause potentially serious side effects and often fail to control pain, especially chronic pain. While it’s too soon to ask your doctor for fMRI training, experts say the research has already yielded insights into pain-control strategies that people can adopt on their own.

PLACEBOS AND PAIN
When you bang your shin or hit your thumb with a hammer, your first reaction is to rub the injured spot. That instinctive response interferes with the transmission of pain signals to the spinal cord and then up to the brain. But your emotions and beliefs also play a role in controlling pain. For example, stress seems to activate a pain-suppressing response from the brain; that’s why injured soldiers or athletes often feel no pain until the crisis passes. And your brain can limit pain if it thinks you’ve taken a painkilling drug, even if you’ve received only a sugar pill, or placebo.

Conversely, inappropriately negative beliefs about pain can magnify it by causing your muscles to tense up or your brain to exaggerate the discomfort.

To better understand the body’s pain-modulating system, Zubieta and colleagues studied how the brain reacts to placebos (see illustration at left). “We learned that when people think they’re getting real painkillers, their brain releases endorphins,” the body’s natural opiates, Zubieta says. That finding “shows that what’s going on in people’s heads has a real, measurable effect on the body, and suggests that if they could harness that ability they might be able to better control their pain,” he says.

BRAIN TRAINING
That’s exactly what Tibbitts was doing in the Stanford University study. She and seven other chronic-pain sufferers were taught mental strategies for controlling pain, such as focusing on distracting or soothing images. They were then placed in the fMRI machine and asked to try increasing or decreasing their pain, using whichever strategy they liked best. Other participants used the techniques to control acute pain caused by a moderately heated pad touching their skin.

“The real-time imaging provided sophisticated biofeedback that let patients see how successful they were in increasing blood flow to a part of the brain that controls pain and identify the strategies that worked best for them,” says Sean Mackey, M.D., Ph.D., director of the Stanford Neuroimaging and Pain Lab.

After the training, the volunteers in both groups reported less pain. More than half of the chronic-pain group said...
the training reduced their pain by at least 50 percent, typically for several hours. Mackey hopes that such training, repeated often enough, will provide even longer relief. “Like exercising your body, the training may eventually strengthen the brain’s pain-regulation system,” he says. Or, it may teach people to control their excessive reactions to pain.

RELIEF WITHOUT THE MACHINE

Tibbitts has continued doing the mental methods at home, without the fMRI, with continued success. Considerable research backs up her experience. For example, a July 2006 study of 57 patients with cancer pain found that distraction or relaxation techniques provided substantial short-term benefits. In a longer, one-year trial, those methods reduced chronic pain in 50 percent of the participants, compared with 29 percent of those who got standard care.

Similarly, confidence in your treatment often translates into better results. In one study comparing acupuncture and massage, back-pain sufferers who felt enthusiastic about their assigned therapy before starting were five times as likely to experience substantial benefits as the skeptical volunteers. Other research shows that people who know they’ve taken a painkiller report considerably more relief than those given the same drug without their knowledge.

WHAT YOU CAN DO

Here are some mental approaches that chronic-pain sufferers could try now, either on their own or with the help of a pain specialist. (For other useful steps, see the accompanying box, “Pain Management: What Works?”) Either way, experiment to find which methods work best. Try to do each of them for 15 to 20 minutes, and repeat as needed.

- Redirect attention from the painful region to other parts of the body, as when Tibbitts focused on her big toe.
- Concentrate on something else. Pursuits you enjoy—listening to music, reading, or even daydreaming—may be particularly effective, studies suggest.
- Practice relaxation methods, such as deep, abdominally-based breathing.
- Try to perceive the pain as harmless or weak rather than damaging, severe, or overwhelming. It may help to discuss your fears with your doctor, who may reassure you, for example, that you really can resume normal activity without worsening the pain.
- Envision soothing or healing images. “Sometimes I would imagine little men with shovels scooping out my pain,” says Tibbitts, “while other times I imagined snowflakes falling on my shoulder and cooling it.”

In addition to those steps, try to develop confidence about your treatment and ability to manage pain:

- Learn about the physiology and management of your pain. For example, teaching back-pain sufferers that physical activity doesn’t further harm the back can improve pain control, studies have found. And a comprehensive understanding of your pain-treatment options, including how they work and how to use them safely and effectively, might create a greater sense of control.
- Express your preferences. If you feel strongly about particular treatments, ask your doctor to provide a therapy that suits you better.
- Find a confident physician whom you trust. In one study, patients whose doctor firmly assured them they’d soon be well recovered faster than others who got the same treatment but no reassurance.

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# Pain management: What works?

In addition to the mental strategies described in the main report, most people should treat the common types of pain listed below by making lifestyle changes. If those don’t help, ask your doctor about other options, including drugs and alternative therapies.

<table>
<thead>
<tr>
<th>Condition</th>
<th>Lifestyle measures</th>
<th>Drugs</th>
<th>Alternative therapies</th>
</tr>
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<tbody>
<tr>
<td>Arthritis</td>
<td>- Lose excess weight and do low-impact exercises recommended by a health or exercise professional.</td>
<td>- Acetaminophen or, if that doesn’t help, ibuprofen, naproxen, or salicylate (a prescription relative of aspirin).</td>
<td>- Acupuncture or relaxation techniques, such as biofeedback, guided imagery, or massage, especially for osteoarthritis. Also consider glucosamine and chondroitin.</td>
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<td></td>
<td>- For rheumatoid arthritis, avoid triggers, such as stress, infection, and insufficient sleep.</td>
<td>- For rheumatoid arthritis, corticosteroids, such as prednisone, for short-term relief; for long-term relief, methotrexate (Rheumatrex), or the new biologically engineered drugs, such as etanercept (Enbrel) or infliximab (Remicade).</td>
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<td>Back pain</td>
<td>- For acute pain, apply a cold pack for the first day or two, then a heating pad; resume gentle exercise as soon as possible.</td>
<td>- For acute pain: acetaminophen, aspirin, ibuprofen or, if it’s severe, short-acting opioids, corticosteroids, or possibly muscle relaxants.</td>
<td>- For chronic pain: relaxation, cognitive-behavioral training, or yoga.</td>
</tr>
<tr>
<td></td>
<td>- For chronic pain, lose excess weight and do back exercises, preferably recommended by a specialist.</td>
<td>- For chronic pain: tricyclic antidepressants, such as amitriptyline (generic, Elavil), anticonvulsants such as gabapentin (generic, Neurontin), or possibly long-acting opioids or surgery.</td>
<td>- For acute or chronic pain: spinal manipulation, massage, or acupuncture.</td>
</tr>
<tr>
<td>Headache</td>
<td>- Identify possible triggers (such as red wine, chocolate, or stress) or underlying causes (such as hypertension, sinus infection, or caffeine or drug withdrawal).</td>
<td>- Acetaminophen or ibuprofen, possibly combined with caffeine (generic, Anacin, Excedrin Migraine).</td>
<td>Relaxation techniques.</td>
</tr>
<tr>
<td>Neuropathy (from diabetes, shingles, or chronic pain)</td>
<td>- Treat underlying condition, such as diabetes.</td>
<td>- Tricyclic antidepressants (see above), or anticonvulsants, such as gabapentin (generic, Neurontin).</td>
<td>Seek referral to pain clinic if pain persists.</td>
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</tbody>
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