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a decision psychologist at the University of Michigan Risk Science Center. Moreover, some chemicals pose health problems only beyond a certain threshold of exposure, whereas others might actually be more dangerous at low concentrations than at high ones.

More important, most environmental health studies conducted in people identify associations, not cause-and-effect relations. Certainly the fact that people who have high levels of BPA in their urine are more likely to be obese provides a hint that BPA may cause weight gain. Yet BPA exposure is also associated with other choices, such as processed food consumption, which can cause the numbers on the scale to creep up. Not all chemical associations are causal.

That all said, pregnant women *can* make smart, simple decisions to protect their unborn babies. Being a nonsmoker is a big one because cigarette smoke interferes with many aspects of development. Eating good food, and preparing it carefully, can make a big difference, too. “Eat low on the food chain, wash your fruits and vegetables before you eat them, and try to eat fresh rather than processed foods—all these things will help because they have the benefit of increasing your nutritional consumption and decreasing your chemical exposures,” says Tracey Woodruff, director of the Program on Reproductive Health and the Environment at U.C. San Francisco. These kinds of simple, all-around healthy choices are often much more effective than rash ones such as throwing out all your BPA-lined plastic bottles because it is difficult to eliminate specific risks without introducing new ones. Some packaging manufacturers have stopped using BPA, for instance, but “what they’ve put in instead is less well tested and often from the same chemical family,” Zikmund-Fisher says. “Does it have fewer risks? Who knows.”

Ultimately, Zikmund-Fisher says, we need only look around to realize that there is no need to panic: the vast majority of pregnancies carried to term produce healthy children. “Look at your life and the choices you make, and do things that can make you safer easily, but don’t overreact to anything,” he explains. “There are very, very few things out there that have such huge effects on our lives or our baby’s lives that one teeny bit of exposure is going to make a difference.” —Melinda Wenner Moyer



» Prisoner’s Escape

Yoga practice reduces anxiety and impulsivity in prison populations

Incarcerated thieves, drug dealers and murderers may not be the typical group you imagine doing yoga, but recent studies show that the ancient discipline might be able to play an important role in reducing prison violence. Several studies have shown that yoga helps to improve symptoms of anxiety and depression in prisoners, and now a study at the University of Oxford has found that it also increases focus and, crucially, decreases impulsivity—a known factor in much prison violence.

The Oxford researchers studied 100 prisoners from seven U.K. prisons. About half the prisoners practiced yoga once a week for 10 weeks; the other half were told they were on a waitlist for the yoga class and encouraged to go about their regular exercise routines. Prisoners in the yoga program—two women and 43 men—became less aggressive toward their fellow inmates and felt less stress, as measured by standard questionnaires. The yogis also performed better than the waitlisted group on a computerized test of executive control, suggesting they had become more attentive to their surroundings and more thoughtful about their actions.

“Attention and impulsivity are very important for this population, which has problems dealing with aggressive impulses,” says Oxford psychologist Miguel Farias, one of the study’s authors. With less anxiety and aggression, he notes, prisoners should be better able to reintegrate into society when they are released.

—Georgia Pike

Yoga Brain

The ancient practice promotes growth in brain regions for self-awareness

Yoga seems to bestow mental benefits, such as a calmer, more relaxed mind. Now research by Chantal Villemure and Catherine Bushnell of the National Center for Complementary and Alternative Medicine in Bethesda, Md., may explain how. Using MRI scans, Villemure detected more gray matter—brain cells—in certain brain areas in people who regularly practiced yoga, as compared with control subjects. “We found that with more hours of practice per week, certain areas were more enlarged,” Villemure says, a finding that hints that yoga was a contributing factor to the brain gains.

Yogis had larger brain volume in the somatosensory cortex, which contains a mental map of our body, the superior parietal cortex, involved in directing attention, and the visual cortex, which Villemure postulates might have been bolstered by visualization techniques. The hippocampus, a region critical to dampening stress, was also enlarged in practitioners, as were the precuneus and the posterior cingulate cortex, areas key to our concept of self. All these brain areas could be engaged by elements of yoga practice, Villemure says. The yogis dedicated on average about 70 percent of their practice to physical postures, about 20 percent to meditation and 10 percent to breath work, typical of most Western yoga routines. Villemure presented the work in November 2013 at the annual meeting of the Society for Neuroscience in San Diego. —Stephani Sutherland

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