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MEDICINE

Pretend pills can be an effective treatment for some patients: **8 things you need to know about placebos.**

BY TONI GERBER HOPE

WHEN LINDA BUONANNO wanted to go to the beach or join friends for a night out dancing, she wouldn't eat for 2 days before. "I was so worried I'd have cramps and diarrhea," says Buonanno, now 70, who'd developed irritable bowel syndrome about 22 years ago. Though she found some relief with OTC medicines, she still had concerns about when her symptoms would erupt.

Then, about 12 years ago, Buonanno joined a trial of a new IBS drug at Harvard's Beth Israel Deaconess Medical Center. After 3 days she began to feel better, and by the fourth day she had no symptoms at all.

But 3 weeks later, after the trial had ended, Buonanno was just as miserable as she had been before. "Please," she begged her doctor, "let me take those pills again."

It wasn't until last November, when her physician was able to undertake another trial of the same drug, that Buonanno resumed treatment. Again, she became symptom-free in a few days.

What was in those white capsules that brought Buonanno such relief? Literally nothing. The pills in both trials were placebos—capsules filled

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with inactive ingredients like cellulose and sugar. What's more, Buonanno knew she was taking a placebo in both studies. But the combination of being prescribed the pill plus being in a trial and having regular, engaging conversations with one of the researchers gave her the relief she couldn't find with conventional medications.

It turns out that “nothing” can heal and that the mere act of taking a new medicine, even one with no active ingredients, can provide relief if the person taking it believes it can. The studies Buonanno participated in, and others like them, show what a powerful effect our thoughts about the care we receive have on physical healing.

The phenomenon is called the placebo effect, and it occurs when treatments that have no physical reason to work—that is, drugs that have no active ingredients—stimulate real physiological

conditions that involve pain, depression, anxiety, and fatigue. Placebos can even help control heart rate and blood pressure. Today medical researchers are studying how placebo power can be enhanced and how anyone can tune in to it to help the mind heal the body. Here's what's known so far:

1 WHAT EXACTLY IS A PLACEBO?

You probably first experienced the power of the placebo effect when you were a small child and your mother's kiss made a cut stop hurting. Mom was onto something. A placebo is any kind of medical treatment that has no obvious physiological reason to have an effect: a pill with no ingredients that would affect the condition, acupuncture with retractable needles, or fake surgery that only involves prepping a patient and making him believe he will be operated on.

cholesterol—but it changes the way you react to the illness.”

2 WHY ARE SCIENTISTS INTERESTED IN PLACEBOS NOW?

Doctors have known about the placebo effect for centuries, but it wasn't until the World War II experiences of US Army medic Henry K. Beecher that the scientific spotlight began to shine on the phenomenon. At a loss for how to proceed when supplies of morphine ran out, Beecher discovered that surgical patients experienced significant relief from simply being told that their injections—of plain saline solution—contained the powerful painkiller. Now placebos are often used in trials of new drugs. In a standard double-blind study, one group of patients receives the new medication and a control group receives a placebo. The structure ensures that the trial accurately measures the effect of the new drug. For instance, if 90% of the patients taking the new drug reported feeling better, it would be easy to conclude that the new drug worked well. But what if, in the same study, 75% of the control group—the group taking the placebo—also said they felt better? Scientists take the difference between the two results—in this case, 15%—to more accurately determine the effectiveness of the new drug.

“But the placebo effect goes far beyond what happens in clinical trials,” says Alia Crum, an assistant professor in the department of psychology at Stanford

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responses. Experts say that people can't think themselves well and that shame treatments won't eradicate viruses or cure life-threatening illnesses like cancer. But the placebo effect *can* help the body help itself.

So far placebos have been shown to be beneficial for a wide range of disorders and seem to have the greatest effect

“The placebo effect works for conditions that involve the brain, like pain,” explains Ted Kaptchuk, director of the Program in Placebo Studies and the Therapeutic Encounter at Beth Israel Deaconess Medical Center. “It doesn't change the underlying biology of an illness—that's why you wouldn't use it for fighting cancer or lowering

University's Mind & Body Lab. “It's a way of recruiting the body's natural healing powers.”

3 HOW DOES A PLACEBO WORK?

When you're given a pill, whether inactive or active, your brain responds to the expectation of relief. It releases a cascade of chemicals—natural painkillers like endorphins, for example. Studies have shown that people with Parkinson's disease, who don't produce enough of the brain chemical dopamine, enjoy an uptick in dopamine levels—and a drop in tremors and other symptoms—when they take a placebo but believe they're receiving L-dopa, a dopamine precursor. Expectation is such a powerful trigger that the act of your doctor handing you a prescription can make you feel better—even before you fill it. Says Crum, “Your mind-set shifts from *I'm sick!* to *I'm healing!*”

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4 WHEN ARE PLACEBOS USED, OTHER THAN IN MEDICAL EXPERIMENTS?

In a national survey of 1,200 internists and rheumatologists, about half acknowledged using placebos regularly in their medical practices. They recommended vitamins or an over-the-counter pain reliever, for example, suggesting to patients that the medications might be beneficial even though those specific drugs aren't typically prescribed for their conditions. A significant majority of the doctors (62%) were comfortable with this practice.

And apparently patients don't object, either. Nearly 900 Kaiser Permanente patients in California, all of whom had been treated for a chronic health problem within the past 6 months, were asked how they felt about doctors using placebos. More than three-quarters of

them said it was fine as long as the physicians believed the treatment might be helpful and explained it to their patients. Of course, the white coat, diplomas on the wall, crackle of the paper on the exam table...all of these cues that you're being medically cared for can be part of the placebo effect and contribute to a sense of wellness, too.

5 IS PRESCRIBING A PLACEBO ETHICAL?

The American Medical Association is not enthusiastic: "The use of a placebo without the patient's knowledge may undermine trust, compromise the patient-physician relationship, and result in medical harm to the patient," reads the association's Code of Medical Ethics, which helps guide doctors' decisions about care. When doctors prescribe vitamins or painkillers,

patients know what they're taking. In medical research, though, that's not always true. Concerned about ethics, researchers have developed "open label" trials, meaning the participants know they're receiving placebo drugs.

The real danger in using placebos would be if they were used in place of a safe, effective, and available treatment. No ethical doctor would assign cancer patients to a no-treatment group if an effective treatment already exists for that cancer, for instance. But sometimes researchers want to test a new drug to be used along with a standard treatment, and in that case everyone in the study would receive the usual treatment. Some of the patients would receive the new drug in addition, while others would receive the placebo instead.

6 ARE THE RESULTS DIFFERENT WHEN THE PATIENT KNOWS OR DOESN'T KNOW A PLACEBO IS BEING USED?

Amazingly, as with the trial Buonomo participated in, it doesn't seem to matter whether the patient knows the pills are placebos or not.

In a study published last December, researchers found that sufferers of lower-back pain who received a placebo on top of their usual treatment experienced more relief—measured by both pain and mobility—than a control group that continued taking painkillers, exercising, or doing whatever had been their usual treatment before the study. When some of the control group added open-label placebos, meaning they knew they

were taking an inactive drug, they still benefited more than those who simply continued with their usual treatment.

7 CAN EVERY PATIENT BENEFIT FROM A PLACEBO?

People with an "open" personality—those who are eager to have new experiences or try unusual things—may respond more to the placebo effect, whether or not they're aware they're using a placebo. But Crum minimizes the personality connection and asserts that anyone can benefit, regardless of disposition: "People respond differently to information delivered from a doctor, but everyone has the power to change their mind-set."

8 CAN YOU MAKE A DIY PLACEBO?

You can help make the placebo effect stronger by saying, as you take the pill, "I'm going to feel better." The goal isn't to trick yourself, says Kapchuk, but to solidify the connection in your brain. It can work even for occasional situations, such as popping an ibuprofen for a twisted ankle. There's a scientific reason ibuprofen works, so it's not technically a placebo, but saying the phrase above can make it even more effective.

Other ways to prep your brain for healing include finding an empathetic doctor you trust. Skill and training are important, but look for someone who seems to genuinely understand you and connect with what you're saying. Finally, you can boost the placebo payoff by adding meditation or other tension-easing techniques to your healing regimen. **B**

How "Real" Drug Manufacturers Use the Placebo Effect

Pharmaceutical manufacturers know that our minds influence how we respond to drugs, and they exploit that science when marketing meds. Regardless of ingredients, experiments show benefits can be enhanced by:

