5 Unusual Therapies

A surprising solution for joint pain

Fake meds real results

Pros & Cons
Medical Marijuana

Ashley Seippel shares her secret weapon against arthritis
Fake Therapies That Work
Placebos may ease symptoms – even if you know they’re not real.

Could taking a pill ease joint pain even if it contains no medicine – and you know it?

Plenty of research suggests placebos – fake therapies such as sugar pills and saline injections – can ease symptoms of many different conditions. For example, a small 2016 study in *PLOS Biology* found that about half of patients with knee osteoarthritis (OA) experienced pain relief from dummy tablets.

Scientists long assumed that placebos work because patients believe they are getting real medicine, yet new research suggests that deception may not be necessary to get benefits. For instance, in a study of 97 people with chronic low back pain, published recently in the journal *Pain*, researchers found those who were told they were taking placebo pills experienced modest but significant improvement in symptoms.

**RITUAL MATTERS**

Study coauthor Ted Kaptchuk, MD, believes that the "rituals, symbols and interactions" that are part of receiving medical treatment – being examined by a doctor, filling a prescription, opening the bottle – are all part of the placebo effect. "You’re doing everything that suggests you might get better," says Dr. Kaptchuk, a professor of medicine at Harvard Medical School and director of the Program in Placebo Studies and Therapeutic Encounter at Beth Israel Deaconess Medical Center in Boston. That creates an expectation in the patient’s mind that they’ll do just that, even if they know a pill contains no medicine.

**SUBCONSCIOUS RESPONSE**

That’s probably because those expectations occur beyond our consciousness, explains another placebo researcher, Luana Colloca, MD, an associate professor of anesthesiology at the University of Maryland School of Nursing.

Dr. Colloca and colleagues found in one experiment that a bogus analgesic skin cream provided pain relief, even after study participants were told it was fake. "This suggested to us that there must be a subconscious component" to placebos, she says.

In other words, Dr. Colloca explains, our brains are conditioned to respond to the act of popping a pill or rubbing on a cream – even one with no medicine – by triggering various physiological changes that can help reduce symptoms. (Brain imaging studies show that taking a placebo causes the body to release naturally occurring opioid-like molecules that reduce pain.)

**POTENTIAL BENEFITS**

Dr. Colloca believes that this phenomenon could help some patients reduce their risk for drug side effects and lower their costs by alternating real pills with placebos – with their physicians’ cooperation, of course.

Dr. Kaptchuk cautions that placebos won’t cure a condition, but they can change “the experience of an illness” for an OA patient. He hopes to study their use in OA and eventually in autoimmune forms of arthritis. "You’re not going to get rid of the inflammatory stuff," he says, "but you can modulate the pain." – TIMOTHY GOWER