

# Placebo Effects on the Brain's Inner Pharmacy: Quantum Uncertainty of Matching Reality with Expectation

By Simon Yu, MD

A placebo (Latin term for "I shall please") treatment is considered a medically ineffectual treatment for a disease or medical condition intended to deceive the patient while professing to help the patient. According to the British Medical Journal published in 2004, 60% of the physicians in Israel used placebos in their medical practice, most commonly to "fend off" requests for unjustified medications or to calm the patient.

A study of Danish general practitioners found 48% had prescribed a placebo at least 10 times in the past year. The most frequently prescribed placebos were usages of antibiotics for viral infections and vitamins for fatigue.

Placebo effects have been a major controversial subject for the doctor-patient relationship and treatments based on calculated measured suggestions with sugar pills or sham surgery. The effects of placebos is a pervasive phenomenon known since ancient times. Some physicians advocate a proper usage of placebo should be encouraged for patients. Other physicians consider placebo treatments are ethically problematic as it introduces deception and dishonesty into the doctor-patient relationship.

The placebo effect is related to the perceptions, beliefs, conditioning, and expectations of the patient. If the substance is viewed as helpful, it can promote healing even if the remedy is a sugar pill. However, if it is viewed as harmful, it can cause negative effects, known as the Nocebo effect.

Because the placebo effect is based upon expectations and conditioning, the effect rapidly disappears if the patient is told that their placebo intervention is a sham and ineffective. Cultural background, quantity of pills, brand names, past experiences, and high prices, may all impact placebo effects. Injection and acupuncture have been known to have higher, larger placebo effects than pills.

The latest study showed the brain can be manipulated by placebo. The brain controls the body process as documented by a high-resolution emission tomography (PET) scanner. Once dismissed as a psychological phenomenon, new evidence has established that a placebo triggers the brain's "inner pharmacy", that, in essence, is a warehouse perpetually stocked to deliver active drugs to itself. It can improve Parkinson's symptoms, pain, depression, irritable bowel syndrome, anxiety, schizophrenia and more. It is as though the brain goes out of its way to ensure "reality matches expectation" (Discover Magazine July/August 2014 by Erik Vance).

The placebo effects are hard wired into our brain through the prefrontal cortex, anterior cingulate cortex, and thalamus insula regions of the brain. These areas try to match the expectation with the reality. We are entering into the Quantum Uncertainty of Matching Reality with Expectation: Placebo or Nocebo effects which are also influenced by our intention and attention.

A placebo does not work for everyone. Placebo effects occur in about 35% of the general population. In my opinion, alternative natural medicine and homeopathy tend to attract people who had Nocebo effects (expecting bad side effects) of standard orthodox medical care. They are attracted to the milder, gentler therapies with higher expectations, beliefs, perceptions, and conditioning of what we call the placebo effects by my medical colleagues.

Every day, I evaluate and treat my patients based on mapping out their bodies' acupuncture meridian systems, which have been known for several thousand years. Often, I find allergies, heavy metals, hidden dental infections, and parasite problems that have been overlooked by conventional and alternative medical doctors. Those patients who read my articles or my book, *Accidental Cure*, and know what I do, get excited to follow my recommendations. As a rule, they do very well with faster, better responses.

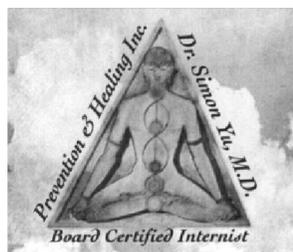
The patients who were dragged to my office by family members, and came with lots of hesitation and skepticism, usually take much longer to respond, or don't respond at all, despite identifying problems similar to the patients who came to me willingly. The hesitant and skeptical patients often focus on the Nocebo Effects of all potential side effects of parasite medications and use excuses of the expense of dental work or the hardship of avoiding their favorite foods or drinks, in order to avoid complying with treatments. They want a guarantee that my therapies will help them. The more they demand some form of guarantee, it seems harder for them to respond.

Your medical problems may not be what you think, what you have been told, or what has been diagnosed. For that matter, I do not dwell on your symptoms or diagnosis. A diagnosis only helps for the insurance companies to categorize you into a profile for medical treatment and payment. The shortcoming of categorizing and profiling, with branding a diagnosis, is that it never addresses the underlying problems.

Placebo effects are a real phenomenon, hard wired into our brain by belief, intention, attention, expectation, conditioning, and perception. Understanding and maximizing the placebo effects on the brain's inner pharmacy and minimizing the nocebo effects can make a difference as to why some people respond and some people do not respond.

You as a patient decide, not the physician, to choose Placebo effects or Nocebo effects. Placebo or Nocebo, choose wisely. That is the quantum uncertainty of matching the reality with expectation.

Dr. Simon Yu, M.D. is a Board Certified Internist. He practices Internal Medicine with an emphasis on Alternative Medicine to use the best each has to offer. For more articles on alternative medicine as well as patient success stories, and Dr. Yu's revolutionary health book, *Accidental Cure: Extraordinary Medicine for Extraordinary Patients*, visit his website at [www.PreventionAndHealing.com](http://www.PreventionAndHealing.com) or call Prevention and Healing, Inc., 314-432-7802. You can also attend a free monthly presentation and discussion by Dr. Yu on Alternative Medicine at his office on the second Tuesday each month at 6:30 pm. Call to verify the date. Seating is limited, arrive early.



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