

Medical Definition of Placebo effect

Medical Author: **William C. Shiel Jr., MD, FACP, FACR**



Placebo effect: Also called the placebo response. A remarkable phenomenon in which a placebo -- a fake treatment, an inactive substance like **sugar**, distilled water, or saline solution -- can sometimes improve a patient's condition simply because the person has the expectation that it will be helpful. Expectation plays a potent role in the placebo effect. The more a person believes they are going to benefit from a treatment, the more likely it is that they will experience a benefit.

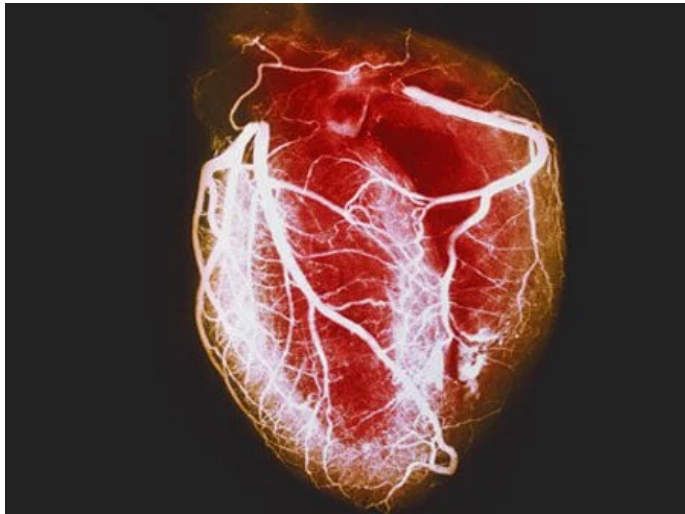
To separate out this power of positive thinking and some other variables from a drug's true medical benefits, companies seeking governmental approval of a new treatment often use placebo-controlled drug studies. If patients on the new drug fare significantly better than those taking placebo, the study helps support the conclusion that the medicine is effective.

The power of positive thinking is not a new subject. The Talmud, the ancient compendium of rabbinical thought, states that: "Where there is hope, there is life." And hope is positive expectation, by another name. The scientific study of the placebo effect is usually dated to the pioneering paper published in 1955 on "The Powerful Placebo" by the anesthesiologist Henry K. Beecher (1904-1976). Beecher concluded that, across the 26 studies he analyzed, an average of 32% of patients responded to placebo.

It has been shown that placebos have measurable physiological effects. They tend to speed up pulse rate, increase **blood pressure**, and improve reaction speeds, for example, when participants are told they have taken a stimulant. Placebos have the opposite physiological effects when participants are told they have taken a **sleep**-producing drug.

The placebo effect is part of the human potential to react positively to a healer. A patient's distress may be relieved by something for which there is no medical basis. A familiar example is Band-Aid put on a child. It can make the child feel better by its soothing effect, though there is no medical reason it should make the child feel better.

People who receive a placebo may also experience negative effects. They are like side effects with a medication and may include, for example, **nausea**, **diarrhea** and **constipation**. A negative placebo effect has been called the nocebo effect.



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