



*Route 66 to medical literature*



*DFGSM3 Free Ride - Saloon*

### **Placebo Effects in Medicine**

<http://www.nejm.org/doi/full/10.1056/NEJMp1504023>

- ✓ Placebo effects are improvements in patients' symptoms attributable to their participation in the therapeutic encounter
- ✓ They rely on complex neurobiologic mechanisms involving neurotransmitters and activation of specific, quantifiable, and relevant areas of the brain
- ✓ Therapeutic benefits associated with placebo effects do not alter the pathophysiology of diseases beyond their symptomatic manifestations, but common symptoms of cancer and side effects of cancer treatment are responsive to placebo treatments
- ✓ Effects of symbols and clinician interactions can dramatically enhance the effectiveness of pharmaceuticals
- ✓ Psychosocial factors that promote therapeutic placebo effects also have potential to cause adverse consequences (nocebo effects)
- ✓ More research is needed involving clinical interventions designed to elicit placebo effects in participants without deception and in a manner consistent with informed consent
- ✓ Medicine's goal is to heal, when no cure is available medicine's ultimate mission is to relieve unnecessary suffering
- ✓ Though placebo effects are modest they are at the core of what makes medicine a healing profession

<http://medicalenglish.univ-nantes.fr>