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[Personality can predict placebo response to pain](#)

DOI: 10.1038/NPP.2012.227

Intrinsic personality traits can predict which individuals would be more likely to experience pain-relieving placebo effects in response to a painful experience, according to a study published this week in *Neuropsychopharmacology*. These findings could be useful for identifying individuals likely to show high placebo responses in clinical trials.

Delivering a non-pain-relieving substance such as a sugar pill can have strong analgesic effects in some individuals, particularly when they anticipate that the treatment will reduce their pain. Placebo analgesic effects are thought to take place, at least in part, by the activation of endogenous opioids as a result of positive expectations. Placebo responses can interfere with the

development of new medications by influencing responses to active and inert treatments during clinical trials.

This study by Jon-Kar Zubieta and colleagues assessed the personality traits of 50 volunteer subjects who were given a painful stimulus that involved hypertonic saline injection into the jaw muscles. Those that scored high on resiliency, altruism, straightforwardness and low on measures of anger and hostility were more likely to experience a pain-relieving placebo response to the painful stimulus. These individuals also showed decreases in stress hormones in their blood and greater activation of endogenous opioids in brain regions known to regulate responses to painful and pleasurable experiences.

Author contact:

Jon-Kar Zubieta (University of Michigan, Ann Arbor, MI, USA)
Tel: +1 734 763 6843; E-mail: Zubieta@umich.edu

Editorial contact for *Neuropsychopharmacology*:

Natalie Marler (*Neuropsychopharmacology*, Brentwood, TN, USA)
Tel: +1 615 324 2371; E-mail: nmarler@acnp.org

PRESS CONTACTS

For media inquiries relating to embargo policy for the journal Neuropsychopharmacology:

Rachel Twinn, *Nature* London
Tel: +44 20 7843 4658; E-mail: r.twinn@nature.com

From North America and Canada
Neda Afsarmanesh, *Nature* New York
Tel : +1 212 726 9231; E-mail : n.afsarmanesh@us.nature.com

From Japan, Korea, China, Singapore and Taiwan
Eiji Matsuda, *Nature* Tokyo
Tel: +81 3 3267 8751; E-mail: e.matsuda@natureasia.com

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