

# Experiments show altruistic behaviors reduce pain

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A team of researchers affiliated with several institutions in China has found that people who engage in altruistic behaviors feel less pain than they otherwise would. In their paper published in *Proceedings of the*

*National Academy of Sciences*, the group outlines the experiments they carried out with volunteers and what they learned from them.

Prior research has shown that engaging in altruistic behaviors (extending kindness to others without expecting anything in return) can make people feel good—doing so causes the brain to produce chemicals such as dopamine which heighten good feelings. Now, the researchers have found that engaging in such activities can also dull the sensation of [pain](#).

To learn more about how engaging in altruistic [behavior](#) might impact the perception of pain, the researchers carried out four experiments. In the first experiment, they asked people giving blood after an earthquake to rate how the pain of the needle jab—they also questioned people giving blood when there were no recent disasters. They found that the people volunteering after the earthquake reported that the needle hurt less than the other group.

In a second experiment, the researchers asked volunteers to help revise a handbook for migrant children while being exposed to cold conditions. They found that those volunteers reported less cold discomfort than did those who did not [volunteer](#) to revise the handbook.

In a third experiment, the researchers compared [cancer patients](#) experiencing pain who cooked and cleaned for others with similar patients who only did so for themselves—once again, they found those helping others reported less pain.

In their final experiment, the researchers asked volunteers to donate money to help orphans; those subjects were also asked how much they thought their donation helped the kids. Each of the volunteers then underwent an MRI scan while experiencing electrical shocks. The researchers report that those who had donated showed less brain response to the shock than did those who refused to donate. They also

found that the more a volunteer felt their donation had helped the orphans, the less their brain responded to the shock.

The researchers suggest their experiments, when combined with results from other studies, indicate that altruistic behavior not only makes people feel good, it also reduces the experience of pain.

**More information:** Yilu Wang et al. Altruistic behaviors relieve physical pain, *Proceedings of the National Academy of Sciences* (2019). [DOI: 10.1073/pnas.1911861117](https://doi.org/10.1073/pnas.1911861117)

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