

Merely seeing disease symptoms may promote aggressive immune response

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Just seeing someone who looks sick is enough to make your immune system work harder, according to a new study in which volunteers looked at pictures of sick people. This may help fight off pathogens, says Mark Schaller from the University of British Columbia who conducted the research. "It seems like it's probably good for the immune system to be responding especially aggressively at times when it looks like you are likely to be coming into contact with something that might make you sick."

Previous research has found that, when people see someone who looks sick, they have a psychological response they feel disgusted and want to stay away. Schaller, Gregory E. Miller, Will M. Gervais, Sarah Yager, and Edith Chen, all at the University of British Columbia, wanted to go one step farther, to see if looking at sick people might also affect how the immune system itself works.

For this study, published in [Psychological Science](#), a journal of the Association for Psychological Science, volunteers were shown two 10-minute slide shows on two different days. The first one was a neutral slide show, with pictures of furniture. The second was one of two options: a disease slide show, showing people with pox, blowing their noses, sneezing, and so forth, or a slide show of guns. Before and after the slide shows, a blood sample was taken from each volunteer. A little [bacteria](#) was added to the blood sample, then the researchers measured the strength of the [immune response](#) (specifically, how much of a substance called interleukin-6 the [immune cells](#) produced).

People who had looked at the pictures of people sneezing, coughing, or otherwise showing signs of disease had a stronger immune response than people who had looked at pictures of men aiming guns at them. This kind of response to the sight of diseased people may have been evolutionarily adaptive, according to Schaller and his colleagues. Although an aggressive immune response has infection-fighting benefits, it's also costly - it consumes energy and can be temporarily debilitating. It may have been adaptive for the immune system to react especially aggressively when additional information indicates that the threat of infection appears high. According to Schaller, "The things we see around us, such as the sight of sick people, can provide that kind of information. And it makes sense for the immune system to respond to it."

Provided by Association for Psychological Science

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