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HEALTH RESEARCH

New Study May Explain Why Stress Can Cause Heart Attacks

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Stress can cause an overproduction of white blood cells, which can contribute to blockages

Scientists may have identified the connection between chronic stress and heart attacks, according to a new study: [white blood cells](#).

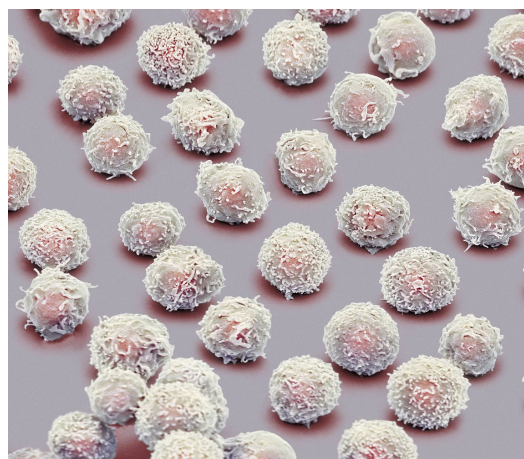
“[They] are important to fight infection and healing, but if you have too many of them, or they are in the wrong place, they can be harmful,” said Matthias Nahrendorf of the Harvard Medical School, who was a co-author of the study, Agence France-Presse reports.

Stress causes an overproduction of white blood cells, which defend the body against diseases but can cause problems when produced in excess. These extra cells can stick to artery walls, causing restrictions in blood flow and aiding the formation of clots that can cause blood-vessel blockages throughout the body.

Columbia University researcher and physician Dr. Alan Tall, who was not involved in the study, [told Science magazine](#) that while doctors have believed that chronic stress could lead to cardiovascular disease, the exact mechanism has not been clear in the past.

To identify the link, Nahrendorf and a group of researchers studied 29 medical residents working in the hospital’s intensive care unit — a fairly stressful place to work.

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White blood cells

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Researchers collected blood samples from the residents during both the workday and off-hours, and they also administered questionnaires about residents' stress levels. After observing an overproduction of white blood cells in residents, they performed an experiment on mice, whose white-blood-cell counts responded similarly to stress induced during the experiment.

While the research may shed new light on the connection between stress and heart attacks, Nahrendorf also says blood pressure, genetic traits, high cholesterol and smoking contribute to risks of heart attacks and strokes.

[[AFP](#)]