

## More white blood cells in cardiac patients with depression

September 6 2012

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(Medical Xpress)—Cardiac patients suffering from depression are at greater risk for new cardiac events or cardiac death than patients without depression. It is still unclear which underlying mechanisms play a role in this adverse relationship. Researchers from Tilburg University, the Veterans Affairs Medical Center in San Francisco, and VU University Medical Center in the Netherlands suggest that inflammatory processes could be involved (*Psychoneuroendocrinology*, August 2012).

The researchers followed 667 patients with stable [coronary heart disease](#) for 6 years to investigate the relationship between depressive symptoms and [white blood cells](#) – a marker for inflammation. Patients were asked about their feelings of depression annually and their blood was drawn at the first and last assessment to determine their white blood cell count. These levels are a reflection of ongoing [inflammatory processes](#) in the body but are also involved in the formation of atherosclerosis, an important precursor of cardiac disease. Because health behaviors such as smoking, physical activity and overweight have a great influence on both depression and cardiac disease, patients were also asked to rate these behaviors.

The results showed that patients who repeatedly experienced depressive symptoms (depressed at two or more interviews) had a higher white blood cell count after 5 years of follow-up compared to those reporting depressive symptoms at one interview or not at all. Further analyses showed that this association was independent of the presence of adverse [health behaviors](#).

The higher white blood cell count in the presence of frequently depressive episodes could possibly explain why cardiac patients with depressive feelings are at greater risk for new cardiac events or cardiac death than those who don't experience depressive feelings.

Provided by Tilburg University

Citation: More white blood cells in cardiac patients with depression (2012, September 6)  
retrieved 23 April 2024 from  
<https://medicalxpress.com/news/2012-09-white-blood-cells-cardiac-patients.html>

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