

A walk in the park gives mental boost to people with depression

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A walk in the park may have psychological benefits for people suffering from depression.

In one of the first studies to examine the effect of nature walks on cognition and mood in people with [major depression](#), researchers in Canada and the U.S. have found promising evidence that a walk in the park may provide some cognitive benefits.

The study was led by Marc Berman, a post-doctoral fellow at Baycrest's Rotman Research Institute in Toronto, with partners from the University of Michigan and Stanford University. It is published online this week, ahead of print publication, in the [Journal of Affective Disorders](#).

"Our study showed that participants with [clinical depression](#) demonstrated improved [memory performance](#) after a walk in nature, compared to a walk in a busy urban environment," said Dr. Berman, who cautioned that such walks are not a replacement for existing and well-validated treatments for clinical depression, such as psychotherapy and drug treatment.

"Walking in nature may act to supplement or enhance existing treatments for clinical depression, but more research is needed to understand just how effective nature walks can be to help improve psychological functioning," he said.

Dr. Berman's research is part of a cognitive science field known as

Attention Restoration Theory (ART) which proposes that people concentrate better after spending time in nature or looking at scenes of nature. The reason, according to ART, is that people interacting with peaceful nature settings aren't bombarded with external distractions that relentlessly tax their [working memory](#) and attention systems. In nature settings, the brain can relax and enter a state of contemplativeness that helps to restore or refresh those cognitive capacities.

In a research paper he published in 2008 in [Psychological Science](#), Dr. Berman showed that adults who were not diagnosed with any illness received a mental boost after an hour-long walk in a woodland park – improving their performance on memory and attention tests by 20 percent – compared to an hour-long stroll in a noisy urban environment. The findings were reported by The Wall Street Journal, The Boston Globe, The New York Times, and in the Pulitzer Prize finalist book by Nicholas Carr, *The Shallows: What the internet is doing to our brains*.

In this latest study, Dr. Berman and his research team explored whether a nature walk would provide similar cognitive benefits, and also improve mood for people with clinical depression. Given that individuals with depression are characterized by high levels of rumination and negative thinking, the researchers were skeptical at the outset of the study that a solitary walk in the park would provide any benefit at all and may end up worsening memory and exacerbating depressed mood.

For the study, 20 individuals were recruited from the University of Michigan and surrounding Ann Arbor area; all had a diagnosis of clinical depression. The 12 females and eight males (average age 26) participated in a two-part experiment that involved walking in a quiet nature setting and in a noisy urban setting.

Prior to the walks, participants completed baseline testing to determine their cognitive and mood status. Before beginning a walk, the

participants were asked to think about an unresolved, painful autobiographical experience. They were then randomly assigned to go for an hour-long walk in the Ann Arbor Arboretum (woodland park) or traffic heavy portions of downtown Ann Arbor. They followed a prescribed route and wore a GPS watch to ensure compliance.

After completing their walk, they completed a series of mental tests to measure their attention and short-term/working memory and were re-assessed for mood. A week later the participants repeated the entire procedure, [walking](#) in the location that was not visited in the first session.

Participants exhibited a 16 percent increase in attention and working memory after the nature walk relative to the urban walk. Interestingly, interacting with nature did not alleviate depressive mood to any noticeable degree over urban walks, as negative mood decreased and positive mood increased after both walks to a significant and equal extent. Dr. Berman says this suggests that separate brain mechanisms may underlie the cognitive and mood changes of interacting with nature.

Provided by Baycrest Centre for Geriatric Care

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