

Winter blues affect many

February 7 2011, By Jenny Hall



Winter scene. Credit: stock.xchng, Photo: alitaylor

Q&A with Dr. Jeffrey Meyer of psychiatry and the Centre for Addiction and Mental Health.

Is there such a thing as the winter blues?

Yes. There are two ways to understand the [winter blues](#). Some people tend to have lower moods in the fall and winter months or they may gain weight or sleep more—but are still functioning within a healthy range. On the other end of the spectrum, some people go into a full clinical depression in the fall and winter months, and have what's called [Seasonal Affective Disorder](#) (SAD).

What causes SAD?

We don't know definitively, but some investigators have considered a genetic predisposition to seasonal effects, and some have considered

hormonal variations across the seasons. We have some exciting leads.

We published some research in the *Archives of General Psychiatry* recently that is promising. We recruited 88 healthy people who came in at different times of the year for scans which measured serotonin transporter binding, which is a process that transports serotonin into cells, making serotonin inactive.

Serotonin is a chemical that regulates many of our brain functions, including mood, sleep, appetite, concentration, and optimism. Serotonin transporters are proteins that move serotonin from active sites in the brain to inactive sites of the brain—essentially storing it and taking it out of service.

We found that there was greater transporter density in the fall and the winter as compared to the spring and the summer. The inference is that a higher density of serotonin transporters means that more serotonin is being removed from active sites in the brain—and that mood is lowered as a result.

There was an inverse correlation between duration of daily light and density of serotonin transporter binding. This suggests that light exposure may influence [serotonin transporter](#) density in many brain regions, but there are other things that change with season, like temperature and humidity, so our next step is to try to isolate the effect of light alone on serotonin transporters.

What can be done to combat SAD?

Evidence for light therapy is mixed. But studies that have investigated the use of a strong light box for long periods tend to find significant effects. There are some interesting studies, including a Canadian study that compared the effect of light therapy versus antidepressants and

found similar results.

It's possible that in the future we will take seasonal issues into consideration when we talk about how to have a healthy lifestyle. For example, in the future we might create guidelines for how many windows a house has or the amount of natural light needed to maintain good health.

More information: simplelink.library.utoronto.ca/url.cfm/69840

Provided by University of Toronto

Citation: Winter blues affect many (2011, February 7) retrieved 20 March 2024 from <https://medicalxpress.com/news/2011-02-winter-blues-affect.html>

<p>This document is subject to copyright. Apart from any fair dealing for the purpose of private study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.</p>
--