Medical Xpress

Microbes could influence your desire to get outside

March 11 2020

Credit: Pixabay

Ecology researchers at Flinders University (Australia) and the University of Sheffield (UK) have proposed the "Lovebug Effect," which suggests that microbes could theoretically influence us to spend more time in

nature while simultaneously improving our immune system to help combat diseases like inflammation and allergies.

The human gut microbiome remains relatively stable after the first few years of life so the researchers wondered whether a connection with nature at an early age would increase the amount of time a child spends outside later in adult life, improving their health in the process.

Jake Robinson, a Ph.D. researcher from the University of Sheffield, says the Lovebug Effect could have important implications on our understanding about the importance of human exposure to natural environments for health and wellbeing, and could contribute to an ecologically resilient future.

"By altering our brain chemistry, microbes may be able to manipulate our behavior to influence the food choices we make or the environments we visit. Part of this process could involve our decisions to spend time in nature, that is, to be immersed in dense clouds of invisible biodiversity and phytochemicals that are potentially beneficial to our health," says Mr Robinson.

For example, microbes have been shown to produce an array of chemicals in the body that can hijack the communication system between the gut and the brain.

However, other pathways that don't involve direct manipulation could also play a role, such as changes in inherited traits across generations, and in particular, those that maximize survival and reproduction.

Dr. Martin Breed says it's important to generate discussion about how far microbiome science can go in terms of influencing human behavior and health.

"Humans have been losing our connection with the great outdoors and all its biodiversity including the vast array of microbes that cling to surfaces and sail through the air. Our diminishing connection with the natural world is thought to contribute to a rising trend in non-communicable diseases—such as chronic inflammatory conditions and allergies," says Dr. Breed.

"So the next time you're strolling through a woodland or a park, take a moment to think about how the invisible critters within and around you may have influenced your desire to spend to time in nature."

More information: Jake M. Robinson et al. The Lovebug Effect: Is the human biophilic drive influenced by interactions between the host, the environment, and the microbiome?, *Science of The Total Environment* (2020). DOI: 10.1016/j.scitotenv.2020.137626

Provided by Flinders University

Citation: Microbes could influence your desire to get outside (2020, March 11) retrieved 26 April 2024 from https://medicalxpress.com/news/2020-03-microbes-desire.html

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.