

## Adaptogenic-rich caffeinated beverages may help those with fatigue

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Credit: Clarkson University

Recent research published by Clarkson University scientists shows that adaptogenic-rich caffeinated beverages are significantly more helpful than synthetically sourced caffeinated beverages for people with low



mental energy or high mental or physical fatigue.

Adaptogens are nontoxic substances, like herbs, mushrooms or plant extracts, thought to have <u>health benefits</u> and increase the body's resistance to damage from stress.

Last year, research published by Associate Professor of Physical Therapy Ali Boolani and his associates identified that the personality trait of energy and <u>fatigue</u> influenced how someone responded to a caffeinated beverage. Since then, they have also reported how these traits are associated with how people respond to several other interventions, such as exercise, sleep and even standing desks versus sitting desks.

Recently, they also published additional evidence that there may be distinct gut microbiome associated with these <u>personality traits</u>, which may influence how certain foods/beverages are metabolized.

"This led us to re-think our previously published study that compared an adaptogenic-rich caffeinated beverage, made from green tea and yerba mate, to a synthetically sourced caffeinated beverage," says Boolani. "Therefore, we went back and re-examined our data to see whether the personality trait of energy and fatigue also explained some of the interindividual responses to the adaptogenic rich beverages."

The data re-analysis was led by Associate Professor of Mathematics Sumona Mondal and mathematics Ph.D. student Daniel Fuller.

"Our results were really interesting in that we found that an adaptogenic-rich caffeinated beverage was significantly more helpful for individuals who normally report feeling low mental energy or high mental fatigue or high physical fatigue," says Boolani. "These same individuals reported increased <a href="heart rate">heart rate</a>, increased <a href="heart rate">blood pressure</a> and increased feelings of



anxiety with a synthetically sourced caffeinated beverage."

The research findings suggest that people who might need caffeine the most (those who normally report feeling low energy/high fatigue) might benefit from consuming an adaptogenic-rich caffeinated beverage, as it seemed to provide the mood benefits without the usual negatively associated responses to caffeine.

Eric Gumpricht, director of research and science at Isagenix International and an adjunct faculty member at Arizona State University, provided the research team with the expertise to help identify potential reasons why adaptogens might provide a mood benefit, while attenuating the negative responses of caffeine.

The research paper, titled "Trait Energy and Fatigue Modify Acute Ingestion of an Adaptogenic-Rich Beverage on Neurocognitive Performance," was recently published in *Applied Sciences*.

**More information:** Ali Boolani et al, Trait Energy and Fatigue Modify Acute Ingestion of an Adaptogenic-Rich Beverage on Neurocognitive Performance, *Applied Sciences* (2022). DOI: 10.3390/app12094466

## Provided by Clarkson University

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