



De ades of resear h has shw n that limits n ab rie intake y ies, w rms, and mi e an enhan e life span in la oratory onditio ns. But whether su h ab rie restri tio n an d the same fo r humans remains un lear. A new study led y resear hers o n rms the health effe ts of mo derate ab rie restri tio ns in humans and identi es a key p o tein that ould e harnesssed to extend health in humans[1].

re resear h was ased on results fo m the Co mpre hensive Assessment of lo ng-term Effe ts of Redu ing ntake of Energy

"These findings demonstrate that A2G7 is one of the drivers of the effects of calorie restriction." Identifying these drivers helps us understand how the metabolic system and the immune system talk to each other, which can point us to potential targets that can improve immune function, reduce inflammation, and potentially even enhance healthy lifespan."

For instance, it might be possible to manipulate A2G7 and get the benefits of calorie restriction without having to actually restrict calories, which can be harmful for some people.

## References

1. Redman LM, Ravussin E (2010) Caloric restriction in humans: impact on physiological, psychological, and behavioral outcomes. *Antioxid Redox Signal* 14:275-287.
2. Hwangbo DS, Lee HY, Abozaid LS, Min KJ (2020) Mechanisms of lifespan regulation by calorie restriction and intermittent fasting in model organisms. *Nutrients* 12(4): 1194.
3. Chung HY, Kim DH, Bang E, Yu BP (2020) Impacts of Calorie Restriction and Intermittent Fasting on Health and Diseases: Current Trends. *Nutrients* 12(10): 2948.
4. Hoshino S, Kobayashi M, Higami Y (2018) Mechanisms of the anti-aging and longevity effects of caloric restriction: evidence from studies of genetically modified animals. *Aging (Albany NY)* 10: 2243-51.
5. Velingkaar N, Mezhnina V, Poe A, Kondratov RV (2021) Two-meal caloric restriction induces 12-hour rhythms and improves glucose homeostasis. *FASEB J* 35:e21342.