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Israel, Singapore researchers reveal more about artificial sweeteners

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A study led by researchers at Ben-Gurion University of the Negev (BGU), Israel and Nanyang Technological University in Singapore has revealed that artificial sweeteners, even those approved by the US Food and Drug Administration, and sports supplements that use them, are toxic for human gut bacteria.



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Six artificial sweeteners including aspartame, sucralose and saccharine neotame, advantame and acesulfame potassium-k, and 10 sport supplements containing these artificial sweeteners were studied by the researchers.

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In the lab trial, the researchers genetically modified E. coli bacteria to become luminescent when exposed to toxins. They then exposed the bacteria to the artificial sweeteners, causing the toxic response.

According to the researchers, the results of this study might help in understanding the relative toxicity of artificial sweeteners and the potential of negative effects on the gut microbial community as well as the environment.