The Southampton Study's Claims Haven't Held Up: A Timeline

AMERICAN BEVERAGE

Scientific attempts to replicate the study's findings have failed, while global food safety agencies continue to confirm the safety of artificial colors.

2007

The Southampton Study is Published

- Researchers at the University of Southampton in England examined the effects of certain artificial colors on children aged 3 and 8-9. Their findings suggested a possible link between these ingredients and hyperactivity.

2008

The European Food Safety Authority (EFSA) Finds Insufficient Evidence from the Southampton Study

- *"In the context of the overall weight of evidence and in view of the considerable uncertainties…the Panel concludes that the findings of the study cannot be used as a basis for altering the ADI (acceptable daily intake) of the respective food colours…"*

2010

U.S. Food & Drug Administration (FDA) Concludes No Causal Link Between Food Colors and ADHD or Other Behavioral Issues

- Following an extensive review of 33 human studies, the FDA determined: *"[t]he available information…does not support a causal relationship of…artificial food colors/preservatives…with ADHD or other problem behaviors in children."*

2011

Multiple Global Reviews Reaffirm the Safety of Food Colors

- The FDA Food Advisory Committee: *"…a link between children's consumption of certified color additives causing behavioral effects had not been established."*
- The Joint FAO/WHO Expert Committee on Food Additives (JECFA) confirms that dietary exposure to artificial colors, including Sunset Yellow FCF, does not pose a health concern to the general population or children.
- EFSA assessed the safety of Allura Red, Tartrazine, Sunset Yellow and Brilliant Blue from 2009 to 2015 and reaffirmed the safety of all colors.

2013

Southampton Researcher Unable to Replicate Original Conclusions

- A follow-up study led by an original Southampton researcher failed to replicate the 2007 study's conclusions: *"There seem to be no significant associations between artificial food colors…on…children's behavior at the age of 8 to 9 years."*

2016-17

JECFA Reaffirms the Safety of Artificial Colors

- 2016: *"…[D]ietary exposure to Allura Red AC for children and all other age groups does not present a health concern."*
- 2017: *"…[D]ietary exposure to tartrazine for the general population, including children, does not present a health concern."*

2019

FDA Does Not Change Its Conclusions after FDA Science Board Review

- After reviewing the latest evidence, FDA maintains its previous conclusions that causal links do not exist between artificial colors and hyperactivity in children after FDA Science Board review.

2020-21

A Comprehensive Scientific Review Finds No Evidence that Artificial Colors Impact Neurodevelopment

- *"The results indicate a lack of adequate or consistent evidence of neurological effects, supported by a lack of bioavailability and brain penetration predicted by the* in silico *assessment."*

Three Separate Reviews Continue to Support the Safety of Artificial Colors

- June 2020: "*The six colors [reviewed] do not appear to alter signaling pathways related to neurodevelopmental processes on the molecular or cellular level…(and) lack [of] activity…for key events in neurodevelopmental signaling pathways."*
- June 2021: *"We therefore maintain the outcome of our analyses and the conclusion of our assessment, that the available animal and mechanistic studies and the newly conducted in silico evaluation collectively show a lack of adequate or consistent evidence of neurobehavioral effects; in other words, the evidence lacks the strength to be relied upon for a neurobehavioral quantitative risk assessment."*
- September 2021: The European Commission (EU) provided its support for the use of these colors in international food standards.

California Office of Environmental Health Hazard Assessment (OEHHA) Review Faces Criticism

- OEHHA published a review suggesting a link between artificial colors and neurobehavioral effects. OEHHA's review was not a formal risk assessment that JECFA, EFSA and FDA typically conduct.
- An independent toxicologist found key conclusions in the report "not tenable" and that the evidence *"does not support biological plausibility for the alleged health effects."*

2024

California's Department of Public Health (CDPH) Rejects Calls for Warning Labels

- After reviewing scientific literature, CDPH declined to require warning labels, rejecting OEHHA's stance: *"Scientific research indicates no definitive conclusion that synthetic food dyes trigger behavioral responses in children."*