

**2012 World Cancer Congress**  
*Prevention and early detection*



# The use of artificial sweeteners and cancer risk: a systematic review

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# Objective

To review the scientific literature on the relationship between artificial sweeteners and cancer.

# Methods

- OVID and SCOPUS platforms.
- MeSH Terms: sweetening agent(s), artificial sweetener(s), sugar substitute(s), sweetener(s), and cancer or neoplasm.
- From the resulting list of citations, title and abstracts were independently read by two reviewers, in order to identify if papers were within the scope of this review's objective.
- After this first selection, papers were rated regarding their quality, highlighting their methodological strengths and weaknesses (STROBE, CONSORT and ARRIVE guidelines were used).



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# Conclusions/Discussion

- Most experimental studies have indicated higher incidence of malignant tumors amongst rats that have been submitted to oral intake of artificial sweeteners.
- A great share of observational studies have not shown an association between artificial sweeteners intake and cancer risk.
- However, it is noteworthy that methodological weaknesses, including exposure assessment and analysis, might have biased these results (e.g. only a few studies have analyzed the exposure properly – products containing artificial sweeteners and their use at the table, and/or different types of artificial sweeteners).
- Conflicts of interest issue
- Hazard vs. Risk analysis
- Precautionary principle
- Hyperpalatability
- Taste education