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## Ultra-processed foods and their relationship with the development of chronic non-communicable diseases (NCDs) in school-aged children and adolescents: An integrative review.

*Ultra-processed foods and their relationship with the development of chronic non-communicable diseases (NCDs) in school-aged children and adolescents: An integrative review*

**Amanda Bispo Nascimento dos Santos**

### Summary

**Introduction:** The consumption of ultra-processed foods (UPF) has grown significantly among children and adolescents, driven by the industrialization of the food system, the wide availability of these products, and the strong influence of marketing directed at young people.

According to the NOVA classification, ultra-processed foods (UPFs) are industrial formulations rich in sugars, saturated fats, sodium, and additives, while having low nutritional value. Evidence suggests that the early adoption of this dietary pattern is associated with the development of cardiometabolic risk factors and an increased likelihood of non-communicable chronic diseases (NCDs) throughout life, such as type 2 diabetes mellitus (DM2), hypertension, and dyslipidemia.

In Brazil, studies indicate that these products can represent 20% to 35% of the total daily energy intake of the infant and juvenile population, posing a significant nutritional and social challenge. This scenario is aggravated by the influence of socioeconomic factors, the school and family food environment, and the reduced consumption of *unprocessed foods*, essential for promoting healthy growth and preventing long-term illnesses. **Objective:** This study aims to analyze recent scientific evidence on the relationship between the consumption of ultra-processed foods and the development of NCDs or cardiometabolic risk factors in school-aged children and adolescents, synthesizing the metabolic, nutritional, behavioral, and social impacts associated with this dietary pattern.

**Methodology:** This study is characterized as a

This integrative literature review, descriptive and exploratory in nature, encompassed studies published between 2021 and 2025. Searches were conducted in the PubMed, SciELO, and CAPES Journals databases, using the following descriptors in Portuguese and English: "ultra-processed foods", "children", "adolescents", "non-communicable chronic diseases", and "non-communicable diseases". **Results and discussion:** The analyzed studies demonstrate a consistent association between higher consumption of ultra-processed foods (UPF) and worse cardiometabolic outcomes. National research indicates that children and adolescents with higher UPF intake have a higher prevalence of overweight, abdominal obesity, increased waist circumference, poorer lipid profile, insulin resistance, and inflammatory alterations. Regional studies have shown that UPF accounts for a significant portion of the diet from the first years of life, reinforcing the early formation of inadequate eating habits. Socioeconomic factors, such as lower income and lower family education levels, also proved to be important determinants, with higher consumption among vulnerable populations. The included international studies broaden this panorama, demonstrating that the ultra-processed dietary pattern is associated not only with the risk of obesity, but also with sedentary behaviors and poorer psychological well-being. **Conclusion:** The findings of this review reinforce that the frequent consumption of ultra-processed foods represents an important modifiable risk factor for children and adolescents. Early exposure to these products compromises nutritional status, favors metabolic alterations, and increases the likelihood of future development of NCDs (non-communicable diseases). In this context, prevention should occur from childhood, involving family, school, and health services, in order to promote healthier food choices and ensure a better quality of life throughout the life cycle.

**Keywords:** Ultra-processed foods; non-communicable chronic diseases; children; adolescents; eating habits.

### Abstract

**Introduction:** The consumption of ultra-processed foods (UPFs) has been growing significantly

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among children and adolescents, driven by the industrialization of the food system, the wide availability of these products, and the strong influence of marketing aimed at young audiences.

According to the NOVA classification, UPFs are industrial formulations rich in sugars, saturated fats, sodium, and additives, while having low nutritional value. Evidence suggests that early adoption of this dietary pattern is associated with the development of cardiometabolic risk factors and an increased likelihood of Non-Communicable Chronic Diseases (NCDs) throughout life, such as type 2 diabetes, high blood pressure, and dyslipidemias. Studies indicate that these products may account for 20% to 35% of the total daily energy intake of children and adolescents, representing a significant nutritional and social challenge. This scenario is exacerbated by the influence of socioeconomic factors, the school and family food environment, and the reduced consumption of unprocessed foods, which are essential for promoting healthy growth and preventing long-term diseases. **Objective:** The present study aims to analyze recent scientific evidence on the relationship between the consumption of ultra-processed foods and the development of non-communicable diseases (NCDs) or cardiometabolic risk factors in school-aged children and adolescents, synthesizing the metabolic, nutritional, behavioral, and social impacts associated with this dietary pattern. **Methodology:** This study is characterized as an integrative literature review, descriptive and exploratory in nature, covering studies published between 2021 and 2025. The searches were conducted in the PubMed, SciELO, and CAPES Journals databases, using descriptors in Portuguese and English: "alimentos ultraprocessados," "ultra-processed foods," "children," "adolescents," "non-communicable chronic diseases," and "non-communicable diseases." **Results and discussion:** The analyzed studies show a consistent association between higher consumption of UPFs and worse cardiometabolic outcomes. National research indicates that children and adolescents with higher UPF intake have a higher prevalence of overweight, abdominal obesity, increased waist circumference, worse lipid profiles, insulin resistance, and inflammatory changes. Regional studies observed that UPFs make up a significant portion of the diet from the early years of life, reinforcing the early formation of inadequate eating habits. Socioeconomic factors, such as lower income and lower family education, also proved to be important determinants, with higher consumption among vulnerable populations. The included international studies broaden this perspective, showing that an ultraprocessed food pattern is associated not only with the risk of obesity but also with sedentary behaviors and worse psychological well-being. **Conclusion:** The findings of this review reinforce that frequent consumption of ultraprocessed foods represents an important modifiable risk factor for children and adolescents. Early exposure to these products compromises nutritional status, promotes metabolic changes, and increases the likelihood of future development of non-communicable diseases. In this context, prevention should begin in childhood, involving family, school, and health services, to promote healthier food choices and ensure better quality of life throughout the life cycle.

**Keywords:** Ultra-processed foods; non-communicable chronic diseases; children; teenagers; eating habits.

## Introduction

Non-communicable chronic diseases (NCDs) currently constitute one of the main public health challenges, being responsible for the majority of global morbidity and mortality and for significant increase in healthcare costs (WHO, 2023). These conditions, such as diseases Cardiovascular diseases, type 2 diabetes mellitus, and some neoplasms are characterized by slow progression and long duration, often beginning with risk factors that develop during childhood. childhood and adolescence (BRAZIL, 2023).

Among the factors that contribute to the early development of NCDs, the following stands out: A significant increase in the consumption of Ultra-Processed Foods (UPF). According to the classification

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NEW, these products consist of industrial formulations rich in free sugars, sodium,

saturated fats and food additives, with low nutritional density and high

Hyperpalatability, characteristics that promote overconsumption and metabolic changes.

important (Monteiro *et al.* 2019).

According to the Statute of Children and Adolescents (ECA), a child is considered to be...

An individual under 12 years of age, while an adolescent is defined as someone between 12 and 18 years old.

incomplete. The World Health Organization (WHO) uses the 5 to 9 year age range as a reference.

for childhood and 10 to 19 years for adolescence, parameters widely adopted in research.

epidemiological.

National studies with children and adolescents demonstrate that AUPs represent a portion

A significant portion of the Total Daily Energy Value (TDEV) is considered one of the main...

nutritional risk markers in this population (Pereira *et al.*, 2022; Souza *et al.*, 2022; Fonseca *et al.*, 2023).

Meanwhile, research indicates that the distribution of AUP consumption does not occur in homogeneous distribution among population groups. Socioeconomic factors, such as income and education.

Maternal factors and urbanization directly influence food choices and the availability of unprocessed foods, favoring greater exposure to processed products among families in situation of greater vulnerability (Gonçalves *et al.*, 2023; Lacerda *et al.*, 2024). Furthermore, environments schools, local businesses, and intense advertising aimed at young people reinforce the presence of these products in everyday food (Oliveira; Brandão; Muniz, 2021).

Recent studies, including systematic reviews and multicenter investigations, evidence suggests that regular consumption of ultra-processed foods is associated not only with weight gain and obesity, but also to important cardiometabolic changes, such as increased triglycerides, greater abdominal circumference, insulin resistance and subclinical inflammation (Guerra *et al.*, 2023; Mescolôto; Pongiluppi; Domene, 2024; Bláquezi *et al.*, 2023; Robles *et al.*, 2024). Such changes, When developed early, they significantly increase the future risk of NCDs (non-communicable diseases).

With regard to assessing the nutritional status of children and adolescents, Brazil adopts officially, the growth charts from the World Health Organization (WHO) are used as a reference. provided by the Food and Nutritional Surveillance System (SISVAN). These curves are organized into three distinct age groups: children from 0 to under 5 years old, children from 5 to 10 years old and adolescents aged 10 to 19, each with specific cut-off points for interpreting BMI-Para-age (BMI/I).

Nutritional diagnosis is established based on BMI/I Z-scores, which allow to classify thinness, normal weight, overweight, obesity, and severe obesity. To complement the In addition to the assessment, indicators such as waist circumference and waist-to-toe ratio are also recommended.

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height, especially relevant for identifying cardiometabolic risk in adolescents, given their relationship with central adiposity.

The following is a standardized table with the cut-off points used by SISVAN, valid for children and adolescents between 5 and 10 years old and from 10 to 19 years old (age ranges analyzed in the studies that make up this review), adapted from WHO reference curves.

#### Figure 1 – Classification of nutritional status by BMI-for-age (5 to 19 years)

IMC-para-idade:

VALORES CRÍTICOS		DIAGNÓSTICO NUTRICIONAL
< Percentil 0,1	< Escore-z -3	Magreza acentuada
≥ Percentil 0,1 e < Percentil 3	≥ Escore-z -3 e < Escore-z -2	Magreza
≥ Percentil 3 e ≤ Percentil 85	≥ Escore-z -2 e ≤ Escore-z +1	Eutrofia
> Percentil 85 e ≤ Percentil 97	≥ Escore-z +1 e ≤ Escore-z +2	Sobrepeso
> Percentil 97 e ≤ Percentil 99,9	≥ Escore-z +2 e ≤ Escore-z +3	Obesidade
> Percentil 99,9	> Escore-z +3	Obesidade grave

Source: Ministry of Health. SISVAN – Food and Nutritional Surveillance System. WHO growth curves (2006/2007).

In addition to the energy impact, high consumption of ultra-processed foods reduces the intake of fiber, vitamins, and minerals, contributing to nutritional deficiencies and metabolic problems, especially in schoolchildren (Souza *et al.*, 2022) and adolescents, as demonstrated in national and international investigations (Gonçalves *et al.*, 2023; Machado-Rodrigues *et al.*, 2024).

Within the context of Primary Care, the nutritionist plays a strategic role in prevention and in... Management of childhood obesity, acting in both individual and collective care (BRAZIL, 2014). Their responsibilities include assessing nutritional status using anthropometric indicators. Standardized methods, early identification of risk factors, and individualized dietary guidance. (BRAZIL, 2014). They also include conducting Food and Nutrition Education actions. (EAN) and the implementation of interventions aimed at improving the food environment, focusing on reducing the consumption of ultra-processed foods and promoting healthy eating habits. (BRAZIL, 2014). In addition, the nutritionist participates in intersectoral actions, contributing to the planning local health promotion policies and integrating multidisciplinary teams in Development of strategies for preventing NCDs from childhood (BRAZIL, 2014). The action The qualifications of this professional are essential to interrupt the cycle of risk that begins prematurely, reducing the likelihood of developing chronic conditions throughout life (BRAZIL,

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2014).

Given this scenario, it is important to understand in depth how consumption patterns change.

Understanding how AUP (Acute Pediatric Urology) influences child and adolescent health is fundamental to supporting preventive actions and improving...

Food and nutrition education strategies and strengthening public policies aimed at promoting healthy eating habits.  
healthy.

Thus, the present study aims to review the recent literature on the consumption of  
Ultra-processed foods among children and adolescents and their impacts on health, highlighting  
the main scientific evidence and the factors that shape this growing dietary pattern and  
worrying.

## Methodology

This study is an integrative literature review of a bibliographical nature.  
descriptive and exploratory, with the aim of gathering and synthesizing recent scientific evidence about  
the relationship between the consumption of ultra-processed foods (UPF) and the development of diseases  
Non-communicable chronic diseases (NCDs) in school-aged children and adolescents.

The review was conducted based on the following guiding question: "What is the evidence?"  
Scientific studies link the consumption of ultra-processed foods to the development of  
"Non-communicable chronic diseases in school-aged children and adolescents?". The search for  
The studies took place between September and October 2025, using the National Library of Medicine databases.  
Medicine – PubMed/MEDLINE; CAPES and SciELO (Scientific Electronic Library Online) journals.  
because they bring together relevant scientific productions in the areas of health, nutrition, and epidemiology. These  
The platforms were chosen because they cover both international and national publications.  
allowing for a broad and contextualized analysis of the topic.

For the selection of articles, controlled descriptors from the DeCS vocabularies were applied.  
(Descriptors in Health Sciences) and MeSH (Medical Subject Headings), associated through the  
Boolean operators AND and OR. The terms used in the search, in Portuguese and English,  
respectively, they were: "ultra-processed foods", "ultra-processed foods", "children",  
"children", "adolescents", "non-communicable chronic diseases" and "chronic  
"noncommunicable diseases".

The study included primary source articles, available in full text and written in  
Portuguese, English, or Spanish, that address the association between food consumption.  
Ultra-processed foods and the onset or worsening of chronic non-communicable diseases or risk factors.  
related risk factors, such as obesity, insulin resistance, dyslipidemia, and hypertension in  
children and teenagers.

Excluded were: duplicate studies across databases, and studies published in years prior to 2021.

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those that addressed exclusively adult or elderly populations and those that did not present

Directly related to the topic. Reviews without analytical character and abstracts were also disregarded. of events, dissertations, monographs, editorials and letters to the editor.

The time frame encompassed the last five years (2021–2025), with the objective of prioritize recent evidence that is consistent with current food consumption and health trends. public.

The primary descriptor used to begin the selection process was "ultra-processed foods".

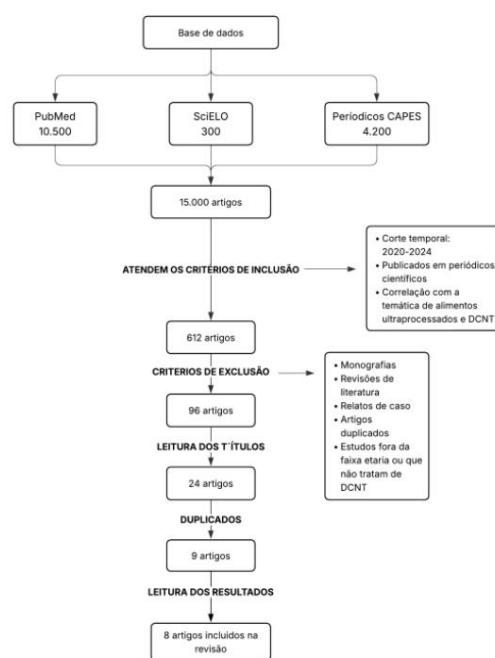
The article selection process followed several sequential steps: initially, the following was carried out: screening of titles and abstracts found in searches, with the aim of eliminating duplicates and studies that did not have a direct relationship with the topic were then read.

A complete review of the eligible texts was conducted, analyzing the suitability of each one to the criteria. previously defined. Finally, the final selection of articles to be included in the review was made.

The sequence for identifying and selecting the studies was described in a flowchart (Figure 1), which presents the steps from the initial search to the final inclusion of the articles used in the review.

**Figure 2 - Flowchart of the search and selection process for scientific articles included in the review.**

Alimentos Ultraprocessados e sua Relação com o Desenvolvimento de Doenças Crônicas Não Transmissíveis (DCNT) em Crianças em Idade Escolar e Adolescentes: Uma Revisão integrativa



Source: Developed by the authors, 2025.

During the survey, 15,000 articles were found in the three databases searched, being 10,500 in PubMed/MEDLINE, 4,200 in CAPES Journals, and 300 in SciELO. After applying the Based on the inclusion criteria, 612 studies were considered potentially relevant. Then, they were... After applying the exclusion criteria, 96 articles remained.

The titles were then read, resulting in the selection of 24 articles.

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submitted for title review, with 9 considered duplicates and excluded. After complete reading

From the abstracts and texts, 8 articles fully met the defined criteria and were included for final analysis.

Table 1 below presents the main findings from the eight primary articles included in this review, covering information about authors, year, location, Design, sample, objective, methodology, and central results.

Among the selected studies, six were published in Portuguese and two in English. reflecting a predominance of national research. The Brazilian articles provide an overview. consistent regarding the consumption of ultra-processed foods (UPF) in different regions of the country, encompassing school-aged children up to teenagers. The two international studies, however, Published in English, they contribute to broadening the understanding of the phenomenon in external settings. reinforcing that the impact of AUPs on children's and adolescents' health is a shared concern. globally.

**Table 1** – Summary of articles analyzed for review.

Article Author, Year of Publication, Location from the	Outline nto, type of of study and N	Objectives of study	Methodology	Key findings	
1	study by Pereira <i>et al.</i> (2022); Pelotas, Brazil	Study of cohort N = 3,427	To assess the consumption of ultra-processed foods (UPF) among children followed since birth.	Data from the 2004 birth cohort; dietary and anthropometric assessment at ages 6 and 12.	AUP represented approximately 26% of total daily energy; high consumption is associated with a greater risk of overweight in pre-adolescence.
2	Machado-Rodrigues <i>et al.</i> (2024); Portugal	Cross-sectional study N = 1,200	To investigate the relationship between ultra-processed food (UPF) consumption, obesity, sedentary behavior, and well-being in adolescents.	Dietary questionnaires, anthropometric assessment, and lifestyle analysis.	Higher consumption of ultra-processed foods is associated with obesity, psychological well-being, and increased sedentary time.
3	Lacerda <i>et al.</i> (2024); Brazil	Study of cohort N = 1,123	To identify the role of ultra-processed foods in the diet of Brazilian schoolchildren and associated factors.	Dietary survey and sociodemographic data collected in schools.	High consumption of ultra-processed foods among schoolchildren is associated with lower income and low maternal education.
4	Souza <i>et al.</i> (2022) Barbacena (MG), Brazil	Cross-sectional study N = 1,022	To assess the association between the degree of food processing and abdominal obesity in adolescents.	24-hour recall; anthropometry and abdominal circumference measurement.	AUP is associated with a higher prevalence of overweight, abdominal obesity, and metabolic risk.
5	Gonçalves <i>et al.</i> (2023) Brazil	Cross-sectional study N = 71,791	To assess the association between AUP and sociodemographic characteristics in Brazilian adolescents.	Secondary data from the National School Health Survey (PeNSE).	Higher consumption of ultra-in permanent foods is among girls, older teenagers, and students from private schools.
6	Fonseca <i>et al.</i> (2023)	Cross-sectional study	Investigate factors associated with consumption.	Dietary survey and clinical examinations.	Higher consumption of AUP related to lower

	Barbacena (MG), Brazil	N = 506	AUP in children. Family income and higher prevalence of overweight.		
7	Silva-Luis <i>et al.</i> (2024) Paraíba, Brazil	Cross-sectional study N = 151	To evaluate the association between AUP and cardiometabolic factors.	Dietary assessment, anthropometry, lipid profile, inflammatory markers, and liver enzymes.	Increased consumption of ultra-processed sugars (UPS) is associated with increased LDL-c, liver changes, and elevated inflammatory markers.
8	Oliveira; Brandão; Muniz (2021) Brazil	Cross-sectional study N = 462	Analyze consumption food according to the degree of processing.	Application and evaluation of a food frequency questionnaire and diet analysis according to NOVA, applied to the adolescent themselves by A trained interviewer will conduct the research on school premises, in a space designated for the study.	AUP contributed significantly to the total energy value, with low consumption of unprocessed foods.

Source: Developed by the authors, 2025.

## Results and discussion

The analysis of the eight articles included in this review consistently showed that the Consumption of ultra-processed foods (UPF) is associated with unfavorable health outcomes. children and adolescents, including overweight, abdominal obesity, changes cardiometabolic disorders and poorer overall diet quality. These findings converge on the understanding of that UPAs constitute an important determinant of nutritional and metabolic status in the population.

children and young adults.

The national studies analyzed (Pereira *et al.*, 2022; Lacerda *et al.*, 2024; Souza *et al.*, 2022; Fonseca *et al.*, 2023; Gonçalves *et al.*, 2023; Oliveira; Brandão; Muniz, 2021) indicated prevalence high levels of UPA in the diet of children and adolescents, ranging between 20% and 35% of the value total energy. In the study conducted by Pereira *et al.* (2022), carried out in the city of Pelotas (RS), Children belonging to a birth cohort were evaluated, with dietary analysis and Anthropometric measurements were taken at 6 and 12 years of age. The authors observed that the AUPs constituted part expressive of daily food intake, demonstrating that this exposure begins early and continues from stable form throughout childhood. In addition, Lacerda *et al.* (2024), when investigating schoolchildren Brazilians, using dietary questionnaires and analysis of associated factors, observed The high proportion of cookies, sugary drinks, and refined products indicates that these items... They are an important part of the daily diet of school-aged children.

Of the 8 studies included in this review, four directly addressed outcomes. metabolic factors, and all demonstrated a consistent association between higher consumption of ultra-pure sugars and worse metabolic disorders. health indicators. In general, it was observed that high intake of these products is linked to due to increased excess weight, greater central adiposity, and changes in markers.

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cardiometabolic.

In the study by Souza *et al.* (2022), conducted with adolescents from public schools, they were Dietary recalls and detailed anthropometric assessment were used to estimate intake of AUP and its effects on nutritional status. The authors identified that higher consumption of Ultra-processed foods significantly increased the risk of overweight and abdominal obesity. In addition to being associated with an increase in waist circumference, a strongly related indicator to cardiometabolic risk in this age group. Similarly, Fonseca *et al.* (2023), in research conducted with children aged 6 to 10 years in Barbacena (MG), using dietary assessments, Anthropometric measurements and laboratory tests revealed a higher prevalence of glycemic alterations and Insulin resistance among those with higher consumption of ultra-processed foods.

The study by Gonçalves *et al.* (2023) investigated Brazilian adolescents using data Based on detailed dietary and sociodemographic analyses, the authors identified that higher intake of AUP was associated with worse inflammatory markers and more unfavorable lipid profiles. reinforcing that the impact of ultra-processed foods extends beyond weight gain and involves concerning metabolic changes.

The social determinants of AUP consumption were highlighted in a significant way in study by Oliveira; Brandão; Muniz (2021). The research, conducted with adolescents residing in A study conducted in a rural area of a municipality in southern Brazil revealed low income, lower family education levels, and... Limited availability of *fresh, unprocessed* foods has encouraged increased consumption of ultra-processed foods. These findings reinforce the idea that the dietary pattern observed in this population derives not only from Individual choices, but also structural factors that make up the food and social environment.

In an international context, the results reinforce similar trends. The study of Machado-Rodrigues *et al.* (2024), conducted with Portuguese adolescents, used questionnaires. Dietary measurements, anthropometric measurements, and assessments of psychological well-being. The authors They identified that higher consumption of ultra-processed sugars was associated with a higher risk of obesity, and a longer period of time... sedentary behavior and reduced psychological well-being. These findings contribute to the debate. by demonstrating that the negative impact of ultra-processed foods transcends nutritional indicators and encompasses also emotional and behavioral dimensions. This finding corroborates the results of The study by Gonçalves *et al.* (2023) shows that such consumption patterns and their effects Adverse metabolic disorders reproduce themselves in different cultural contexts.

To complement the findings of this review, two additional studies were included in this Discussion: Silva-Luís *et al.* (2024) and a second study by the same team of Machado-Rodrigues *et al.* (2024). These articles were not included in the results table because they did not meet the established methodological criteria for selecting primary studies, especially with regard to to the study design and the age range initially defined. Despite this, both provide

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Relevant additional evidence on the impact of AUPs on child and adolescent health.

In the study conducted by Silva-Luis *et al.* (2024), carried out with children aged 7 to 10 years from the Brazilian Northeast, dietary recalls, anthropometric assessments, and examinations were applied. Laboratory studies to investigate the relationship between AUP intake and cardiometabolic markers. The authors identified a significant association between higher consumption of these foods and an increase in LDL cholesterol, changes in liver enzymes, and elevated inflammatory markers. These findings strengthen the understanding that ultra-processed foods affect more than just weight, bodily, but also about the physiological mechanisms underlying cardiometabolic risk.

The additional study by Machado-Rodrigues *et al.* (2024), conducted with adolescents Portuguese, used validated food frequency questionnaires, anthropometric assessment and Psychosocial instruments for analyzing dietary patterns and their impact on the overall health of young people. The results demonstrated that higher intake of PUA was associated with a higher prevalence of Obesity, increased sedentary behaviors, and worsening indicators of psychological well-being. These findings directly relate to the studies included in this review, reinforcing that the effects of ultra-processed foods extend beyond physical health, also reaching other dimensions. behavioral and emotional.

## Conclusion

This integrative review showed that the consumption of ultra-processed foods (AUP) has a significant and consistent impact on the health of children and adolescents, contributing to increased overweight, obesity, glycemic alterations, dyslipidemia, and others cardiometabolic risk markers. The included studies demonstrated that dietary patterns This group is characterized by a high intake of processed foods and a low supply of *whole* foods. *Natural*, reinforcing the influence of economic, cultural, and environmental factors in the formation of habits. food.

The findings also highlight that early and continuous consumption of UPA tends to... to persist throughout adolescence, increasing the likelihood of developing diseases. Non-communicable chronic diseases (NCDs) in adulthood. Adolescence emerges as a period... especially vulnerable, in which food autonomy, coupled with environmental influence, Obesogenic factors and strong exposure to advertising intensify dietary patterns based on processed products. ultra-processed foods. Furthermore, the presence of direct social inequalities was observed. related to food quality, especially in lower-income populations, where the The practicality and low cost of AUPs (Automated Use Products) favor their widespread adoption.

Although the studies analyzed show strong convergence regarding adverse effects Regarding ultra-processed foods, there are still significant gaps in the literature, particularly concerning...

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with respect to long-term monitoring and the assessment of specific metabolic markers in

different regions of Brazil. Future research should explore these dimensions, as well as investigate

Effective strategies for nutritional intervention in school and community settings.

In practical terms, it is clear that reducing the consumption of ultra-processed foods requires coordinated actions. among health professionals, schools, families, and public administrators. The nutritionist plays a role.

Strategic in this process, acting in food education, in encouraging the consumption of healthy foods .

*Natural resources* and guidance towards accessible and culturally appropriate choices. In parallel, policies

Robust public policies, such as regulating advertising aimed at children and improving the supply of healthy foods.

Strengthening food security programs is essential to transforming the environment.

to feed young people and reduce their exposure to ultra-processed foods.

In summary, the results of this review show that high consumption of PUAs exerts significant impact on the nutritional, metabolic, and behavioral health of children and adolescents, reinforcing the complexity of this problem and the need for actions aimed at prevention. early.

Based on the evidence gathered, it is concluded that addressing high food consumption... Ultra-processed foods are not just an individual issue, but a collective challenge involving health. Public, education, politics, and society. Investing in preventative measures from childhood onwards represents a concrete opportunity to promote a healthier generation, reducing the future incidence of NCDs and strengthen the quality of life of Brazilian children and adolescents.

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