

# Issue At A Glance:

## Digital Marketing and Childhood Obesity

*Childhood obesity remains a significant public health challenge, with growing attention on its association with digital marketing. This brief explores how the digital marketing of junk food, sugary drinks and unhealthy snacks influences childhood obesity and health.*

### Introduction

Childhood obesity is a growing global issue. In 2018, 19% of children and adolescents in the United States were considered obese, a sharp increase from 5% in the 1960s.<sup>1</sup> Obesity, defined as a body mass index (BMI)  $\geq$  95th percentile for age,<sup>2</sup> stems from a combination of lifestyle, cultural, and environmental factors.<sup>3</sup> This rising trend unfortunately places youth at greater risk for developing lifelong health issues, including diabetes, hypertension, cardiovascular disease, and cancer.<sup>4</sup>

One major concern is the role of screen time on childhood obesity. Youth who spend over two hours daily on screens face a 42% increased risk of developing obesity.<sup>1</sup> A key factor is exposure to digital marketing, which often promotes energy-dense, nutrient-poor foods.<sup>5</sup> It is estimated that children may encounter such ads 30 to 180 times per week.<sup>6</sup> Those under age seven are especially vulnerable, as they lack the cognitive ability to recognize the persuasive intent of advertising.<sup>7</sup>

This brief explores the impact of digital marketing on childhood obesity, various tactics used, and efforts to address this issue.

### Key Statistics

<b>14.4 million</b>	Children with obesity in the United States <sup>1</sup>
<b>4 hours</b>	Average reported screen time per day for children <sup>6</sup>
<b>2 ads</b>	Per 30 minutes of screen time exposure <sup>6</sup>
<b>\$1.6 billion</b>	Spent on marketing to children <sup>23</sup>

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# Digital Marketing Techniques

## Cartoon and Mascot Marketing

One of the most notable and effective advertising techniques is the use of animated characters, specifically designed to capture children's attention and foster emotional connections with brands. Iconic mascots like Tony the Tiger (Frosted Flakes), Sir Charms the Leprechaun (Lucky Charms), and Toucan Sam (Froot Loops) are created to appeal to young audiences. As recently as 2022, Kellogg's introduced Tony the Tiger as a gaming streamer on Twitch—a platform widely used by youth—demonstrating how these strategies are evolving with digital trends.

Children as young as three can recognize brands, logos, and product characters.<sup>8</sup> Research shows that these characters influence children's taste perception and product preferences, even when the product isn't explicitly promoted. For children under age seven, colorful packaging featuring familiar mascots is perceived as tastier.<sup>9</sup> A 2011 study comparing reactions to a cereal called "Healthy Bits" with and without a character found that children preferred and even claimed it tasted better when a character was present.<sup>10</sup>

Repeated exposure to these characters fosters emotional attachment, which can continue into adulthood. This creates a sense of nostalgia that drives brand loyalty and sustains purchasing behaviors over time. In effect, companies secure lifelong consumers by building these early emotional connections. As such, targeting children at young age is an especially important marketing strategy.

## Celebrity Marketing and Endorsements

In recent years, companies have increasingly leveraged the influence of celebrities to market their products. High-profile figures like Travis Scott, LeBron James, and Mariah Carey have publicly partnered with McDonald's, even launching themed meals under their names.<sup>11</sup> These endorsements take many forms, including commercials, social media content, and personalized product campaigns. Research shows that such celebrity-driven advertising can significantly shape dietary preferences, particularly among children, who are more likely to choose products promoted by their favorite stars.<sup>11</sup> Notably, exposure to celebrity endorsements has been shown to immediately increase snack consumption and mindless eating in children aged 9–11, with a more pronounced impact on the intake of unhealthy foods.<sup>12</sup>

## Advergaming and Gamification

Another powerful marketing strategy is adver gaming, where promotional content is integrated directly into gameplay. This can include subtle food cues or reward systems with real-world incentives.<sup>13</sup> A recent example is Chipotle's collaboration with Roblox, which featured a virtual restaurant where players earned "burrito bucks" through mini-games, which was redeemable for actual food at Chipotle. Studies indicate that children who engage with adver games containing food cues are significantly more likely to consume energy-dense snacks, even when the product is not overtly promoted.<sup>14</sup>

## History of Initiatives Addressing Food Marketing to Children

In 2006, the Institute of Medicine (IOM) raised concerns about the health risks of food advertising to children.<sup>15</sup> In response, the Children's Food and Beverage Advertising Initiative (CFBAI) launched in 2009 as a self-regulatory program for companies marketing to children under 12. It encouraged limiting the use of characters or using them only for healthier products.<sup>16</sup> <sup>17</sup> By 2011, 17 major companies, including Hershey and Coca-Cola, had joined. Yet, food ads targeting children ages 2–5 rose from 9% to 11.9%, amounting to roughly 4,335 ads in 2011.<sup>15</sup>

Despite CFBAI's goals, most character-driven ads in 2013 still promoted unhealthy products.<sup>18</sup> One-third of food ads came from companies not participating in CFBAI,<sup>16</sup> and even among members, vague nutritional criteria allowed companies to market marginally improved products as "healthier."<sup>18</sup>

In 2020, the American Academy of Pediatrics recommended banning all ads to children under age 7,<sup>12</sup> alongside policy measures like removing tax deductions for unhealthy product ads and taxing sugar-sweetened beverages.<sup>1</sup> That same year, updates to the Children's Online Privacy Protection Rule (COPPA) prohibited targeted ads based on children's personal data.<sup>19</sup>

Together, these efforts underscore the importance of stronger, enforceable standards to limit youth exposure to unhealthy food marketing and highlight that voluntary measures are not enough. Robust federal regulation is needed to protect children's health.

## The Role of Colors in Digital Marketing

Many products are intentionally designed with colors that subconsciously draw attention. In fact, it is believed that nearly 90% of initial judgments of products are made based on color. Research has shown that children are more commonly attracted to colors that are both strong and warm which include red, yellow, and orange.<sup>20</sup> Red is vibrant and represents power and strong emotions—alluding to a sense of urgency. Yellow represents joy and cheer.<sup>21</sup> Thus, it is no coincidence that many popular food and beverage companies utilize these colors in their marketing efforts and brand logos.



## Conclusion

In addition to policy reforms, other strategies are needed to help counteract the effects of digital marketing. Early exposure to nutrition education is one such tool. A 2012 study demonstrated that after nutrition education, elementary-aged children not only identified the healthier product but also preferred it.<sup>22</sup> Similarly, a 2004 study found that educating parents on food advertising techniques improved their ability to analyze claims and manage their children's responses, especially when co-viewing media.<sup>23</sup> With targeted education, both children and parents can become more resilient to the influence of marketing.

Moreover, companies can redirect existing digital marketing strategies to promote healthier products. Since these techniques are already effective and widely used, repurposing them offers a cost-efficient way to encourage better dietary choices among children.

Ultimately, combating the influence of digital food marketing requires a multi-level approach—combining regulation, education, and corporate accountability. Protecting the health of the next generation is a shared responsibility, and now is the time for policymakers, educators, and industry leaders to act with urgency and purpose.

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For more information on digital marketing techniques, visit:

*PBS Kids*

<https://www.pbskids.org/dontbuyit/advertisingtricks/>

*Common Sense Media*

<https://www.commonsensemedia.org>



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