



## The sports food buzz: Understanding consumption, motivations and perceptions in Australian adults

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Sports foods are formulations of protein powders, carbohydrate gels and other nutrients such as creatine and pre work out, that are designed for athletes to provide additional nutrients for optimum performance<sup>(1)</sup>. These contain specific amounts of nutritive substances not meant for non-athletes<sup>(2)</sup>. However, over the last decade there has been a substantial increase in the availability, types, and sales of sports foods in mainstream retailers<sup>(3,4)</sup>, likely driven by non-athlete consumption. Increased consumption could lead to nutrient intake above recommendations<sup>(5)</sup> or unwanted side effects (e.g. caffeine overload) due to consumption of multiple products<sup>(6)</sup>. Little is known about the characteristics and motivations of non-athletes and it is important to understand the drivers of this increase, to ensure appropriate and safe consumption. This study aims to investigate characteristics and motivations, consumption patterns, exercise participation, reasons for product selection and perception of risks and side effects of non-athlete sports food consumers. In 2022, non-athlete Australian adults (18-65) completed a purpose designed online cross-sectional survey. Closed ended questions collected demographic characteristics, sports food consumption (type, frequency, amount, cost), exercise participation (type, frequency, duration), purchase location, recommendation source (friends, family social media) and use of packaging attributes (e.g. claims) to inform decision making. Open-ended questions captured reasons for consumption, perceptions of any risks and side effects experienced. Descriptive statistics were performed for participant characteristics and open-ended questions were analysed using inductive thematic analysis. Participants (n = 307) were predominately female (56%), middle aged (45%), moderate income earners (53%) and tertiary educated (54%). Protein products were most consumed (powder 82%, bar 61%, snack 37%), with over two thirds (65%) consuming 2 or more products. Walking was the most frequent exercise performed (65%), supermarkets the most common purchase location (52%) and media the most frequent recommendation source (39%), with on-pack nutrition information being used by most respondents (95%) to inform product selection. Just over half (52%) stated perceived risks and more than a third (35%) reported experiencing side effects from sports food consumption. The main reasons for consuming sports foods were for protein intake, muscle recovery, stamina and energy. The key risks stated were kidney/liver/organ effects, caffeine overdose and gut/digestion problems. The main side effects reported were bloating, tingling, anxiety (jitters, shaking, trembling), nausea or stomach upsets. Despite the consumer characteristics and their stated awareness of the risks, and side effects experienced, they continue to consume sports foods for their many perceived benefits. This is potentially driven by on-pack nutrition information and claims, which appear particularly influential in purchasing. Previous research shows that on-pack information can be inaccurate, or misleading<sup>(4)</sup>. Tighter regulation and enforcement would benefit non-athletes, ensuring safer and more informed consumption.

**Keywords:** sports foods; food regulation; claims; marketing and advertising

### Ethics Declaration

Yes

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