Critiquing Nutrition Information: 10 Red Flags of Junk Science

The 10 Red Flags of Junk Science is a useful tool to help to evaluate whether nutrition information is reliable. Read the two nutrition articles and critique each of these using the 10 questions below.

Article 1 – Information sheet – Nutrition for the Adolescent Athlete

Author/Website: *Sports Dietitians Australia (SDA). While the authors are not specifically listed, SDA is a reputable source of information from qualified sports dietitians.*

1. Recommendations that promise a quick fix

No. The recommendations provided are in line with that of the Australian Dietary Guidelines, Nutrient Reference Values, and specific nutrition recommendations for junior athletes, as opposed to recommendations for a quick fix.

2. Dire warnings of danger from a single product or regimen

No. There are no dire warnings from a single product; however, it highlights that dietary supplements are not recommended for adolescents, which is in line with evidence-based research.

3. Claims that sound too good to be true

No. There are no claims that appear too good to be true.

4. Simplistic conclusions drawn from a complex study or information

No. There are no simplistic conclusions are drawn from a complex study or information. It synthesises and presents information from a wide range of reputable sources and communicates this in an appropriate way for the general community.

5. Recommendations based on a single study or source

No. While a wide range of sources or studies are not directly referenced in the fact sheet, the information is drawn from a wide range of sources, evidence-based guidelines, and studies.

6. Dramatic statements that are refuted by reputable scientific organisations

No. there are no dramatic statements included in this article.

7. Lists of “good” and “bad” foods

No. The article provides examples of key foods and nutrients for nutrition in junior athletes but does not include a list of "good" and "bad" foods.

8. Recommendations made to sell a product

No. There is no evidence of recommendations made to sell a product.

9. Recommendations based on poor quality research

No. While references are not included in this article because it is presented as a fact sheet, the information is drawn from evidence-based guidelines and studies.

10. Recommendations from studies that ignore individual or group differences

No. This article does consider individual differences. Recommendations are aimed at both adolescents participating in general physical activity, as well as those participating in higher levels of sport. It also provides information for specific nutrients according to gender.

Summary

Overall, this article is a reputable source as the authors / website are appropriately qualified and none of the 10 Red Flags for Junk Science are met. However, it should be noted that as this information is presented as a fact sheet, references are not outlined in detail so it may be difficult to determine where this information has come from. However, the information is drawn from evidence-based guidelines and studies.

Article 2 – Nutrition for the young athlete

Author/Website: *The author is a naturopath. However, their name and qualifications are not outlined in detail. The blog is posted on the Super Pharmacy website.*

1. Recommendations that promise a quick fix

No. The recommendations made do not promise a quick fix.

2. Dire warnings of danger from a single product or regimen

No. There are no claims of danger from a single product or regimen. It does mention that sport supplements are not needed by adolescents.

3. Claims that sound too good to be true

No. There are no claims that appear too good to be true.

4. Simplistic conclusions drawn from a complex study or information

No. There are no simplistic conclusions drawn from a complex study or information. However, there is less detail than the SDA article.

5. Recommendations based on a single study or source

No. Several studies and reliable sources such as the Sports Dietitians Australia and Australian Institute of Sport have been cited.

6. Dramatic statements that are refuted by reputable scientific organisations

No. There are no dramatic statements made.

7. Lists of "good" and "bad" foods

While there are recommendations around foods to include and foods to limit in the diet, these are in line with the Australian dietary guidelines, as opposed to rigid rules of "good" and "bad" foods.

8. Recommendations made to sell a product

Unclear. While the text does not directly make recommendations to sell a product, there are images of product logos on the website and pharmacy branding which ma encourage readers to buy products. The last paragraph regarding iron, calcium and vitamin D may also be interpreted as recommending these products to purchase.

9. Recommendations based on based on poor quality research

No. Appropriate research has been referenced in the reference list.

10. Recommendations from studies that ignore individual or group differences

There is some reflection of group differences throughout the blog. However, this could be addressed in further detail.

Summary

This article does use reputable sources for information and is relatively balanced. However, the author does not have university qualifications in nutrition and dietetics. As it is posted on a pharmacy website which includes advertisements, some of the Red Flags for Junk Science have been met, which may bring the reliability of some information around the use of dietary supplements into question.