

## Activity: Evaluating Supplements

### Introduction

Athletes always seem to be looking for an edge, and a common part of the job of a sports dietitian is to evaluate supplements. Three items the dietitian needs to address are efficacy, safety and permissibility. Efficacy addresses whether or not the supplement “works” or has the benefit on performance claimed. Safety addresses any possible adverse side effects. Permissibility is related to league, organization and governing body rules for allowable and banned substances.

### How to Evaluate

**Efficacy:** Use published, peer-reviewed scientific literature related to the desired performance benefit in the target population. For example, if you’re working with a collegiate athlete, research focused on older adults is not always applicable. Dietitians are taught to look for meta-analyses and reviews when possible, for a systematic summary of the literature. An example is the [IOC Consensus Statement: Dietary Supplements and the High-Performance Athlete](#), published as an open access paper in the British Journal of Sports Medicine. Other resources are available to help evaluate the evidence, for example: [NIH Dietary Supplements for Exercise and Athletic Performance](#) and [Australian Institute of Sport Supplement Framework](#)

**Safety:** Safety outcomes and adverse events are also published in the scientific literature. Safety also includes making sure that supplements, to the best of your knowledge, do not contain any banned substances or ingredients that can cause harm to the athlete. These substances have been found in supplements after analysis, but don’t appear on the label. A couple of organizations have been formed to test batches of supplements for unsafe or banned substances, such as [NSF Certified for Sport](#) and [Informed Choice](#).

**Permissibility:** Most leagues and sports organizations have lists of banned substances. For example, the [NCAA](#), [MLB](#), [NFL](#), [USADA](#), etc. It is important that you are familiar with the policies of the organization for which your athlete plays.

### Activity

Find two supplements an athlete might want to use, one with claims related to muscle building and one claiming to increase energy. Write a review of each including the following items:

1. Describe the supplement. What is it claimed to do for the athlete? What ingredients does it contain?
2. Do you think the supplement is efficacious? Why or why not? Support your view with at least two references published in scientific journals. If possible, include a meta-analysis or systematic review.
3. Evaluate the safety of the supplement or the reported ingredients. Report how you went about searching for safety information.
4. Is the product certified by a 3<sup>rd</sup> party organization?
5. Choose a sports league or organization. Find their policies on supplements and determine if the supplement you are evaluating is permissible or contains any banned substances.