Selenium

Selenium is a required constituent of several enzymes that remove ROS *in vivo*. Moreover, selenium is present in human diets, and its consumption has been quantitated in a number of different populations. Biomarkers for selenium and data for selenium intake exist and have been reported in studies of populations that vary with respect to selenium status. Some intervention studies have been performed that demonstrate effects of selenium supplementation on biomarkers and on the development of disease. Thus, the panel will review the available scientific data and, if it is adequate, will establish DRIs for selenium.

FOOD COMPONENTS THAT WILL NOT BE REVIEWED BY THE PANEL

Phenols and Polyphenols

Phenols and polyphenols are widely distributed in plant foods. They have been shown to have antioxidant activity *in vitro* and may possibly elicit biological effects consistent with sustained and improved human health in several observational studies. Nonetheless, comprehensive food composition data, which are required to assess dietary intakes in a population, are unavailable. In addition, only extremely limited data are available on the absorption and metabolism of these food components. Although phenols and polyphenols may be important dietary constituents, insufficient data are available at this time to warrant their inclusion in this evaluation.

Other Proposed Dietary Antioxidants

The overall DRI framework includes a planned review, by another expert panel, of food components grouped as "other food components." That review, when it is initiated, may include other related compounds not addressed by this panel, such as flavonoids, phenols and polyphenols, phytoestrogens, lipoic acid, and food additives. Because the published literature on some of these potentially important dietary substances is scant at this time, other data may emerge in the future that could allow a consideration of setting DRIs for these compounds as well.

SUMMARY

The panel's proposed definition of a dietary antioxidant follows:

A dietary antioxidant is a substance in foods that significantly decreases the adverse effects of reactive oxygen species, reactive nitrogen species, or both on normal physiological function in humans.