Nutrition Myths and Healthy Dietary Advice in Clinical Practice

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Healthy dietary intake is important for the maintenance of general health and wellness, the prevention of chronic illness, the optimization of life expectancy, and the clinical management of virtually all disease states. Dietary myths (i.e., concepts about nutrition that are poorly supported or contradicted by scientific evidence) may stand in the way of healthy dietary intake. Dietary myths exist about micronutrients, macronutrients, non-nutrients, and food energy. Representative myths of each type include that patients need to focus on consuming enough calcium to ensure bone health, dietary fat leads to obesity and is detrimental to vascular health, all fiber (whether naturally occurring or artificially added) is beneficial, and food calories translate to pounds of body weight through a linear relationship and simple arithmetic. A common theme for dietary myths is a reductionist view of diet that emphasizes selected food constituents as opposed to whole foods. Healthy dietary advice takes a more holistic view; consistent evidence supports recommendations to limit the consumption of ultraprocessed foods and to eat whole or minimally processed foods, generally in a form that is as close to what occurs in nature as possible. Family physicians can help dispel myths for patients and give sound nutritional advice by focusing on actual foods and broader dietary patterns.

What an individual eats is important for the maintenance of general health and wellness and the management of virtually all disease states. Healthy diets are associated with reductions in morbidity and premature mortality. However, much of the dietary information presented as fact is actually myth (i.e., concepts poorly supported or contradicted by the scientific evidence). There are dietary myths about micronutrients (vitamins and minerals), macronutrients (carbohydrates, proteins, and fats), non-nutrients (components of food not currently recognized as essential for growth or maintenance), and food energy (the stored capacity to do work that is often measured in calories). This article will discuss selected common myths in each of these areas.

| SORT: KEY RECOMMENDATIONS FOR PRACTICE |
|----------------------------------------|----------------------------------|
| CLINICAL RECOMMENDATION | EVIDENCE RATING | REFERENCES |
| Supplemental calcium has limited efficacy in the prevention of bone fracture (NNT = 1,000 in community-dwelling women, NNT = 111 in nursing home residents). | A | 4, 5, 8 |
| Supplemental calcium increases the risk of kidney stones, and possibly cardiovascular events and hip fracture. | B | 6–8, 10 |
| Diets higher in fat produce and sustain as much or more weight loss than lower-fat or calorie-restricted diets. | A | 17–20 |
| Ultraprocessed foods containing saturated fat (e.g., preserved meat) are associated with increased risk of cardiovascular and all-cause mortality, whereas whole foods containing saturated fat (e.g., dairy products) are inversely associated with incident cardiovascular disease, type 2 diabetes mellitus, and obesity. | B | 22, 26–28 |
| Consuming more dietary fiber in the form of whole foods may help prevent cardiovascular disease, diabetes, constipation, and gastrointestinal and breast cancers. Artificially added functional fibers have not been shown to be beneficial. | B | 32–37 |
| Maintaining a 3,500-calorie energy deficit per week will not result in 1 lb (0.45 kg) of weight loss per week. | C | 43 |
Maintaining a deficit in energy intake of about 100 calories per day without any other changes may lead to an eventual weight loss of approximately 10 lb (4.5 kg)—50% of the change achieved by one year, and about 95% achieved by three years.

NNT = number needed to treat.

A = consistent, good-quality patient-oriented evidence; B = inconsistent or limited-quality patient-oriented evidence; C = consensus, disease-oriented evidence, usual practice, expert opinion, or case series. For information about the SORT evidence rating system, go to http://www.aafp.org/afpsort (http://www.aafp.org/afpsort).

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