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Foreword: Practice-Based Nutrition Care  xv
Edward R. Bollard

Scott Kahan and Robert F. Kushner

Providing Nutritional Care in the Office Practice: Teams, Tools, and Techniques  1157
Robert F. Kushner

Provision of dietary counseling in the office setting is enhanced by using team-based care and electronic tools. Effective provider-patient communication is essential for fostering behavior change: the key component of lifestyle medicine. The principles of communication and behavior change are skill-based and grounded in scientific theories and models. Motivational interviewing and shared decision making, a collaboration process between patients and their providers to reach agreement about a health decision, is an important process in counseling. The stages of change, self-determination, health belief model, social cognitive model, theory of planned behavior, and cognitive behavioral therapy are used in the counseling process.

Nutritional Assessment in Primary Care  1169
Ryan T. Hurt and Stephen A. McClave

Alterations in nutritional status are common and can be associated with increased morbidity and mortality. However, for healthcare providers, the definition of malnutrition is vague, insensitive, and poorly standardized. In contrast, nutrition risk is more easily defined, and recognizes that both poor nutritional status and disease severity contribute to increased morbidity and mortality. Clinicians need to identify patients who may already have evidence of nutrient deficiencies or have disease processes that affect nutrition risk. This article reviews risk assessment tools and provides practical tips to screen patients and identify those whose nutrition risk warrants specialized nutrition therapy.

Nutrition for the Prevention of Chronic Diseases  1185
Ruth W. Kimokoti and Barbara E. Millen

Chronic non-communicable diseases (NCDs) are the leading causes of morbidity and mortality in the United States and globally, and are attributable largely to poor nutrition and suboptimal lifestyle behaviors. The 2015–2020 Dietary Guidelines for Americans promote healthy eating and lifestyle patterns across the lifespan to reduce risk of NCDs. Physicians are well positioned to provide lifestyle preventive interventions that are personalized to their patients’ biological needs and cultural preferences through multidisciplinary team activities or referral to professional nutrition and
physical activity experts. They can also advocate for environmental changes in healthcare and community settings that promote healthful lifestyle behaviors.

**Nutrition Recommendations in Pregnancy and Lactation**

Michelle A. Kominiarek and Priya Rajan

The nutritional status of a woman during pregnancy and lactation is not only critical for her health but for future generations. Although a nutritionist or registered dietitian can help facilitate dietary counseling and interventions, physicians also need to be cognizant of nutritional needs during pregnancy because they differ significantly compared with nonpregnant populations. Furthermore, an individualized approach to nutritional counseling that considers a woman’s nutritional status and body mass index is recommended.

**Nutrition in Children and Adolescents**

Mark R. Corkins, Stephen R. Daniels, Sarah D. de Ferranti, Neville H. Golden, Jae H. Kim, Sheela N. Magge, and Sarah Jane Schwarzenberg

Nutrition is a critical factor for appropriate child and adolescent development. Appropriate nutrition changes according to age. Nutrition is an important element for prevention of disease development, especially for chronic diseases. Many children and adolescents live in environments that do not promote optimum nutrition. Families must work to provide improved food environments to encourage optimum nutrition. Early primordial prevention of risk factors for chronic disease, such as cardiovascular disease, is important, and dietary habits established early may be carried through adult life.

**Nutrition Recommendations in Elderly and Aging**

Hope Barkoukis

Maintaining optimal health and well-being in the older adult requires understanding of how physiologic changes influence nutritional status, familiarity with the available validated tools to assess status, identification of factors predisposing older adults to malnutrition, and evidence-based practice regarding the nutritional needs of this age group. Evidence-based guidance on these core practice components is provided to the clinician in this article.

**Nutrition Interventions for Cardiovascular Disease**

Janet M. de Jesus, Scott Kahan, and Robert H. Eckel

Nutrition therapy is effective at controlling cardiovascular disease risk factors and therefore reducing cardiovascular disease risk. Physicians should play an active role in providing nutrition interventions for patients who would benefit from cardiovascular disease risk reduction or refer them to other professionals as needed. The evidence on nutrition interventions for blood pressure and lipid control, including overall dietary patterns, dietary fat and macronutrients, dietary cholesterol, sodium, and alcohol intake, is discussed.
Dietary modification is recommended in the management of chronic kidney disease (CKD). Individuals with CKD often have multiple comorbidities, such as high blood pressure, diabetes, obesity, and cardiovascular disease, for which dietary modification is also recommended. As CKD progresses, nutrition plays an important role in mitigating risk for cardiovascular disease and decline in kidney function. The objectives of nutrition interventions in CKD include management of risk factors, ensuring optimal nutritional status throughout all stages of CKD, preventing buildup of toxic metabolic products, and avoiding complications of CKD. Recommended dietary changes should be feasible, sustainable, and suited for patients’ food preferences and clinical needs.

For individuals at risk for type 2 diabetes mellitus or the metabolic syndrome, adherence to an idealized dietary pattern can drastically alter the risk and course of these chronic conditions. Target levels of carbohydrate intake should approximate 30% of consumed calories. Healthy food choices should include copious fruits, vegetables, and nuts while minimizing foods with high glycemic indices, especially processed foods.

The progressively increasing rates of obesity have led to a worldwide epidemic of nonalcoholic fatty liver disease (NAFLD), the hepatic manifestation of the metabolic syndrome. It is currently the most common cause of liver disease worldwide and projected to be the leading indication for liver transplantation in the United States by 2020. NAFLD is associated with both liver-related and overall mortality. Undoubtedly, nutrition interventions are key in the treatment of NAFLD, to reverse the disease, and prevent disease progression, complications, and associated comorbidities, including cardiovascular disease and diabetes.

Malnutrition in advanced cancer patients continues to be a vexing problem that contributes to morbidity and mortality. Nutrition interventions have traditionally been used to support patients with malnutrition secondary to cancer and cancer treatments. More recently it has been utilized in the primary and secondary prevention of common forms of cancer in patients undergoing cancer treatment and in cancer survivors respectively. During the emotional stress of dealing with cancer at any stage, patients derive increased quality of life and a sense of control over their lives as the result of receiving supportive advice on diet and lifestyle.
Obesity is a common disorder with complex causes. The epidemic has spurred significant advances in the understanding of nutritional approaches to treating obesity. Although the primary challenge is to introduce a dietary intake that creates an energy deficit, clinicians should also consider targeted risk factor modification with manipulation of the nutrient profile of the weight-reducing diet. These strategies produce significant weight loss and improvements in cardiometabolic risk factors. Future research is needed to better understand how to personalize nutrient prescriptions further to promote optimal risk modification and maintenance of long-term energy balance in the weight-reduced state.