

**Title:** Nutrition Essentials for Physicians

**Background and Need:** In 1900, the principal causes of death in the U.S. were pneumonia, influenza, tuberculosis, and gastrointestinal infections. A knowledge of microorganisms, hygiene, and available anti-microbial treatments became priorities in medical practice. Today, mortality figures are led by heart disease and cancer, and obesity and diabetes are epidemics. For these conditions, nutritional factors are key parts of the pathogenesis, and an understanding of their role is essential for prevention and treatment.

Despite nutrition's central role in disease processes, the subject is largely absent in medical training. In a 2010 survey of 105 US medical schools, 73% failed to provide the minimum hours of nutrition training set by the National Academy of Sciences. A 2018 survey showed that 61% of internal medicine residents had had little or no nutrition training. A survey of cardiologists showed much the same thing.

To address this deficit, some have recommended adding detailed nutrition education modules to undergraduate medical education but have been daunted by the process of curricular change. Another approach is to identify simple core facts that, when understood by physicians, will enable them to address major nutrition questions more confidently. This 2-hour course will provide basic facts that physicians, nurses, dietitians, and others can use in patient care and describe their clinical applications.

**Structure:** This 2-hour lecture-format presentation will cover essential nutrition facts for weight control, heart health, cancer prevention, type diabetes management, and nutrient adequacy, and will provide specific steps for helping patients change their diets.

**Presenters:** Neal Barnard, MD, FACC; Karen Smith, RD

**Objectives:**

1. Describe the mechanisms by which qualitative diet changes can lead to weight loss, even when used without calorie limits or exercise.
2. Describe the nutritional factors that influence plasma LDL-cholesterol concentrations and blood pressure.
3. Understand associations between body weight and cancer risk.
4. Understand how intramyocellular lipid contributes to type 2 diabetes.
5. Describe the need for vitamin B12 supplementation with a vegan diet.
6. Understand how physicians, dietitians, and nutrition instructors can work as a team.
7. Explain the two-step method for adopting a healthful diet.
8. Describe how hospitalization can be used for nutrition teaching.