

Chapter 6 Nutrition in the Science of Wound Healing

Objectives

1. Discuss the role of nutrition in preventing pressure injuries.
2. Describe the impact of inflammation on nutrition status.
3. Discuss the nutrition recommendations in the *Prevention and Treatment of Pressure Ulcers: Clinical Practice Guideline*.
4. Examine the similarities and differences in the *Prevention and Treatment of Pressure Ulcers: Clinical Practice Guideline* and other evidence-based nutrition recommendations.

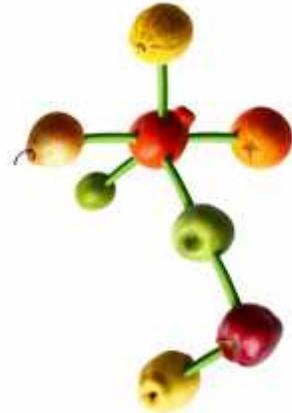


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I. Power of Nutrition in the Preventive Healthcare Model

WHO defines health as 'a state of complete physical, mental and social well-being and merely the absence of disease or infirmity.' Good health is the essence of a productive life and is central to quality of life.

Practicing prevention is any activity which decreases the burden of mortality or morbidity from disease. The preventive healthcare model is based on the theory that health beliefs, dietary habits, food practices, and health behaviors typically influence lifestyle choices.



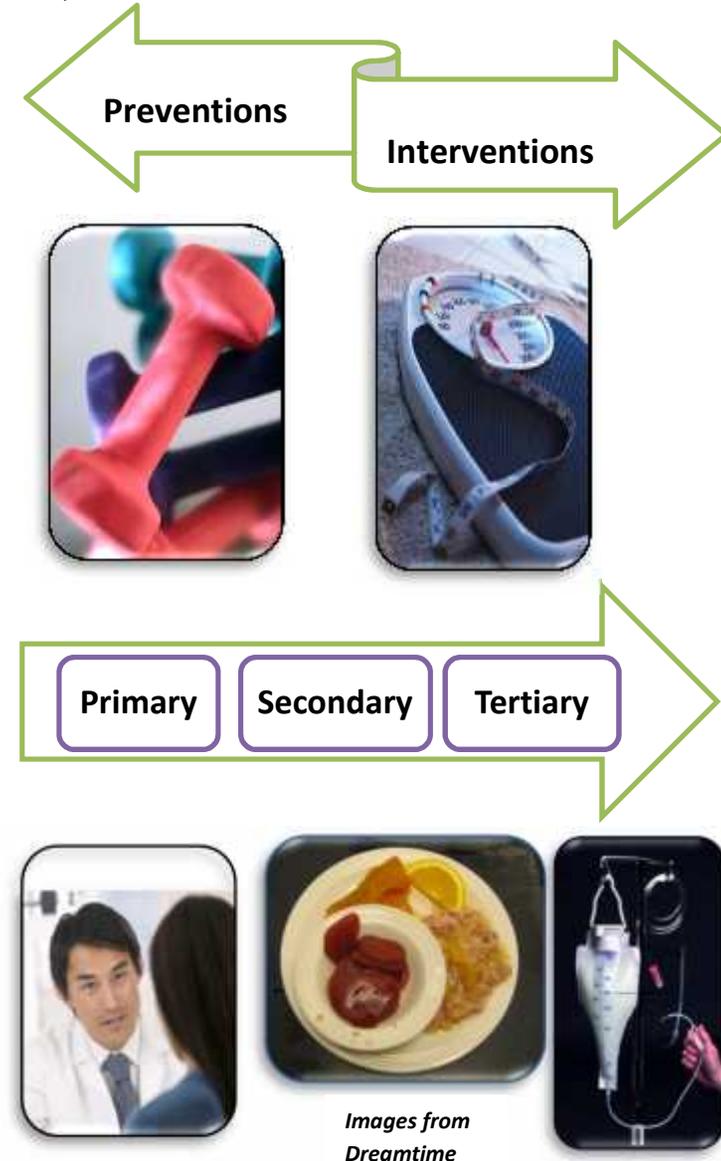
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Lifelong dietary habits play a major role in achieving and maintaining good health and reducing the risk of numerous chronic diseases. Changes in nutrition status may precede or follow illness or injury. The consequence of declining nutrition status may contribute to loss of skin integrity and ultimately a pressure injury. Set a goal to incorporate prevention strategies specific to skin health in your clinical practice. Measuring the effectiveness of prevention programs is one of the priorities within the CMS National Quality Strategy. Components of the Quality Strategy include better care, healthy people, healthy communities and affordable care.

Health & Nutrition Preventions vs. Interventions

Primary, secondary, and tertiary nutrition preventions play a pivotal role in maintaining skin integrity. Within each category of preventions are specific interventions. Health prevention that occurs prior to the presence of a disease diagnosis is primary.¹ Primary nutrition preventive strategies focus on lifestyle modification, healthy eating, patterns of physical activity, and disease prevention. Secondary preventive strategies are implemented once a diagnosis is made, i.e. skin integrity is compromised. Nutrition-related secondary preventive strategies involve reducing risk for worsening pressure injuries and slowing the progression of chronic diseases that negatively impact skin integrity. For example, consuming sufficient amounts of high quality protein and energy to maintain desirable weight and medical nutrition therapy for management of chronic conditions as needed. Tertiary preventive strategies consists of preventing further skin breakdown, preventing infection in wounds and reducing the attendant suffering after a pressure injury is established. These preventive strategies are a component of rehabilitation of disabling conditions. Examples of nutrition-related tertiary preventive strategies include chewing and appetite issues, texture modified diets, adaptive equipment to compensate for functional disabilities that restrict chewing, swallowing and self-feeding and providing assistance during mealtimes.² In some instances, liberalization of therapeutic diets may be beneficial to increase dietary intake. Refer to Figure 6.1.

Figure 6.1 Practical Applications of the Prevention Healthcare Model Using Nutrition to Prevent Pressure Injuries



II. History of Guidelines for Prevention & Treatment of Pressure Injuries

Wounds have been documented in medical writings since ancient times. Evidence of pressure injuries has been found on Egyptian mummies. The

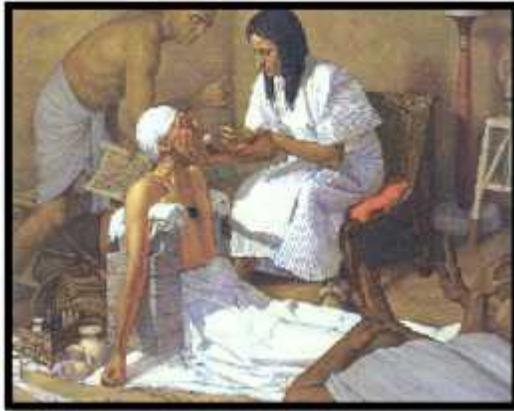


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most common approach to wound healing has been to alter the wound surface as a way to enhance healing. However, the role of diet was noted in the 16th century by the French surgeon Ambrose Pare who described pressure injuries as an 'incurable malady', which could be helped only with 'rest, exercise and a good diet.' However, the benefits of nutrition were not recognized until the 1990s.³⁻⁴ Table 6.1 summarizes different treatment methods used throughout history.

III. Nutrition for Prevention of Pressure Injuries

The National Pressure Ulcer Long Term Care Study⁶ reported that oral eating problems and weight loss were associated with a higher risk of developing pressure injuries.