



CONNECTIONS BETWEEN NUTRITION AND WOUND HEALING

Understanding the connection between nutrition and wound healing helps a CDM, CFPP implement effective interventions, thereby improving healing rates and overall client outcomes.

COMPILED BY ANFP STAFF

- 1. Role of protein in wound healing:** Protein is crucial for the development of new blood vessels and collagen production, which are vital for tissue regeneration in wounded areas. Increased protein intake supports faster wound closure and reduces infection risk.
- 2. Importance of amino acids:** Specific amino acids like arginine, leucine, and glutamine play significant roles in wound healing. Arginine aids in collagen production, leucine supports muscle protein synthesis, and glutamine acts as an antioxidant, enhancing the body's healing response.
- 3. Calorie intake for healing:** Adequate energy intake is essential to support the healing process. Recommendations suggest increasing calories offered to malnourished patients to meet the increased metabolic demands of wound healing.
- 4. Hydration and skin health:** Proper hydration maintains skin elasticity and promotes blood and oxygen flow through tissues. Fluids, primarily water, ensure the skin remains healthy and capable of effective wound healing.
- 5. Micronutrient needs:** Vitamins and minerals like Vitamin C, Zinc, Vitamin A, and Vitamin D are essential for immune function and tissue repair. These micronutrients support various phases of wound healing, from inflammation to tissue regeneration.
- 6. Impact of carbohydrates and fats:** A balanced intake of carbohydrates and fats is necessary for wound healing. Carbohydrates provide energy, while fats are crucial for cell membrane formation and nerve insulation. Both macronutrients support the body's ability to synthesize proteins and create new blood vessels.
- 7. Malnutrition and wound healing:** Malnutrition adversely impacts wound healing by impairing immune function, reducing subcutaneous fat, and decreasing collagen production. Addressing malnutrition is critical in long-term care settings to enhance healing rates.
- 8. Sarcopenia and wound risk:** Sarcopenia, the loss of muscle mass and function, reduces the availability of dietary protein for wound healing. This condition often affects older adults, emphasizing the need for adequate protein intake to replenish the body's protein reserves and support wound repair.
- 9. Clinical nutrition guidelines:** Adhering to clinical nutrition guidelines ensures best practices in wound prevention and treatment. These guidelines provide comprehensive recommendations for optimizing nutritional intake to aid in wound healing.
- 10. Challenges in long-term care:** Patients in long-term care are at greater risk of malnutrition due to factors like poor appetite, feeding problems, medication side effects, and co-existing medical conditions. Addressing these challenges through tailored nutritional interventions can significantly improve wound healing outcomes.

To learn more, read "Nutrition for Wound Healing: Insights for Foodservice Managers" by Chrissy Carroll, MPH, RD, *Nutrition & Foodservice Edge*, September-October 2023.

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