

Nutrients Necessary For Wound Healing

Nutrient	Function	Results of Deficiency
Proteins	<ul style="list-style-type: none"> • Wound Repair • Clotting factor production • White blood cell production • Cell-mediated phagocytosis • Fibroblast proliferation • Neo-vascularization • Collagen synthesis • Epithelial cell proliferation • Wound remodeling 	<ul style="list-style-type: none"> • Poor Healing • Edema • Lymphopenia • Impaired cellular immunity
Albumin	<ul style="list-style-type: none"> • Controls osmotic equilibrium 	<ul style="list-style-type: none"> • Hypoalbuminemia, which promotes generalized edema, thereby slowing oxygen diffusion and metabolic transport mechanisms from the capillaries and cell membrane
Carbohydrates	<ul style="list-style-type: none"> • Supply cellular energy • Spare protein 	<ul style="list-style-type: none"> • Body uses visceral and muscle proteins for energy
Fats	<ul style="list-style-type: none"> • Supply cellular energy • Supply essential fatty acids • Cell membrane manufacture • Prostaglandin production 	<ul style="list-style-type: none"> • Inhibited tissue repair
Vitamin A	<ul style="list-style-type: none"> • Collagen synthesis • Epithelialization 	<ul style="list-style-type: none"> • Poor healing
Vitamin C	<ul style="list-style-type: none"> • Membrane integrity 	<ul style="list-style-type: none"> • Poor healing • Capillary fragility
Vitamin K	<ul style="list-style-type: none"> • Coagulation 	<ul style="list-style-type: none"> • Increased risk of hemorrhage and hematoma
Pyridoxine, riboflavin and thiamine	<ul style="list-style-type: none"> • Antibody and WBC formation • Cofactors in cellular development • Promote enzyme activity 	<ul style="list-style-type: none"> • Decreased resistance to infection
Copper	<ul style="list-style-type: none"> • Collagen cross-linkage 	<ul style="list-style-type: none"> • Decreased collagen synthesis
Iron	<ul style="list-style-type: none"> • Collagen synthesis • Enhances leukocytic bacterial activity 	<ul style="list-style-type: none"> • Anemia • Impaired tensile strength • Impaired collagen cross-linkage
Zinc	<ul style="list-style-type: none"> • Cell proliferation • Cofactor for enzymes 	<ul style="list-style-type: none"> • Slow healing • Alteration in taste