# NUTRIENTS THAT SUPPORT HEALING POST ORTHOPEDIC SURGERY



## PROTEIN

**Role** Considered the building blocks of life, protein supports cellular shape and function, tissue repair, and wound healing

Sources Poultry, fish, beef, eggs, milk, cheese, legumes, tofu, and tempeh

TENNESSEE ORTHOPAEDIC ALLIANCE

#### VITAMIN C

**Role** A potent antioxidant that plays a role in soft tissue synthesis, particularly collagen, to support wound healing

**Sources** Citrus fruits (e.g., oranges, grapefruits, lemon, lime), berries, kiwi, bell peppers, broccoli, and leafy green vegetables

## ZINC

**Role** Involved in various aspects of the healing process, including collagen synthesis, immune function, building proteins, DNA creation, and cell growth **Sources** Oysters, beef, chicken, tofu, pork, seeds, nuts, lentils, yogurt, oatmeal, mushrooms, and fortified cereals

## VITAMIN A

**Role** Cell growth and differentiation, stimulates epithelial turnover, and supports immune function

**Sources** Leafy greens (kale, spinach, broccoli), orange and yellow vegetables (carrots, sweet potatoes, pumpkin and other winter squash, summer squash), tomatoes, red bell peppers, cantaloupe, mango, beef liver, fish oil, milk, and eggs

# **OMEGA-3 FATTY ACIDS**

**Role** Anti-inflammatory properties preventing infections, and can improve early wound healing, and may decrease risk of extensive scarring

**Sources** Fatty fish such as salmon, mackerel, tuna, herring, and sardines; nuts and seeds such as flaxseed, chia seeds, and walnuts; plant-based oils such as flaxseed oil, soybean oil, and canola oil

#### VITAMIN E

**Role** Acts as an antioxidant and may support wound healing by reducing oxidative stress and strengthening connective tissues

**Sources** Plant-based oils such as sunflower, safflower, and soybean oil, sunflower seeds, almonds, peanuts, beet greens, collard greens, spinach, pumpkin, red bell pepper, asparagus, mangos, avocados

## VITAMIN D

**Role** Important for bone health, immunity, and may play a role in the healing process by influencing epidermal growth factors

**Sources** Spend time outdoors for natural sunlight exposure and consume vitamin D-rich foods such as fatty fish, fortified dairy products, and fortified plant-based milk alternatives

## MAGNESIUM

**Role** Plays a role in enzyme function which helps accelerate tissue repair, and responsible for nerve impulses in muscle tissues

**Sources** Green leafy vegetables such as spinach, Swiss chard kale, collard greens, bananas, avocados, legumes, nuts, seeds, whole grains, dark chocolate

## **B VITAMINS**

**Role** B vitamins, including B6, B12, and folate, are involved in energy production and red blood cell formation, transportation of oxygen to tissues, and collagen linkage

**Sources** Whole grains, lean meats, poultry, fish, eggs, dairy products, legumes, leafy greens, and fortified cereals

EMMA NELSON RD, LDN, CPT

