Key Daily Nutrition for Bone Health

1. Calcium

- **Role:** Calcium is the primary mineral in bones, making up the structural framework of the skeleton. Adequate calcium intake helps maintain bone mineral density and supports bone remodelling.
- **Sources:** Dairy products (milk, cheese, yogurt), fortified plant-based milk (almond, soy), leafy green vegetables (kale, broccoli), tofu, almonds, and canned fish with bones (sardines, salmon).
- **Recommended Intake:**
    - Postmenopausal women: **1,200 mg/day**.

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2. Vitamin D

- **Role:** Vitamin D enhances calcium absorption in the gut and promotes mineralization of bone. It also supports muscle strength, which reduces the risk of falls and fractures.
- **Sources:** Sunlight exposure (primary source), fatty fish (salmon, mackerel, sardines), fortified foods (milk, orange juice, cereals), and supplements.
- **Recommended Intake:**
    - Postmenopausal women: **800–1,000 IU/day**, or more if blood levels are insufficient.

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3. Magnesium

- **Role:** Magnesium is vital for converting vitamin D into its active form, which facilitates calcium absorption. It also directly contributes to bone mineralization and density.
- **Sources:** Nuts (almonds, cashews), seeds (pumpkin, chia), whole grains, legumes, leafy greens, and dark chocolate.
- **Recommended Intake:**
    - **320–420 mg/day**, depending on age and health status.

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4. Vitamin K

- **Role:** Vitamin K is essential for producing osteocalcin, a protein that binds calcium to the bone matrix. It also helps regulate bone resorption and formation.
- **Sources:** Leafy greens (spinach, kale, collard greens), broccoli, Brussels sprouts, and fermented foods (natto, a rich source of vitamin K2).
- **Recommended Intake:**
    - **90–120 mcg/day**.

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5. Phosphorus

- **Role:** Phosphorus works in tandem with calcium to form hydroxyapatite, the mineral matrix that gives bones their strength and structure.
- **Sources:** Dairy products, meat, fish, poultry, eggs, nuts, seeds, and whole grains.
- **Recommended Intake:**
    - **700 mg/day**.

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6. Protein

- **Role:** Protein is crucial for maintaining bone matrix structure and muscle mass, which helps protect bones from fractures. Insufficient protein can impair bone healing and increase fall risk.
- **Sources:** Lean meats, fish, eggs, dairy, legumes, nuts, seeds, and soy products.
- **Recommended Intake:**
    - At least **1.0–1.2 g of protein per kg of body weight per day** for older adults
    - Edwina's recommendation is 1.5 grams per kg of body weight per day

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7. Omega-3 Fatty Acids

- **Role:** Omega-3 fatty acids have anti-inflammatory properties that can reduce bone resorption and help preserve bone mass.
- **Sources:** Fatty fish (salmon, mackerel, sardines), flaxseeds, chia seeds, walnuts, and fish oil supplements.
- **Recommended Intake:**
    - Aim for **250–500 mg/day of EPA and DHA combined**.

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8. Zinc

- **Role:** Zinc supports the activity of osteoblasts (bone-forming cells) and plays a role in collagen synthesis, which is part of the bone matrix.
- **Sources:** Meat, shellfish (oysters), beans, nuts, whole grains, and seeds.
- **Recommended Intake:**
    - **8–11 mg/day**, depending on age and health

For an individual nutrition assessment and dietary plan please contact edwina at 0410422981 or email edwina@nutrition4performance.com.au