



MICRONUTRIENT ESSENTIALS



Optimal Daily Intake for Adults & Children
and Top Food Sources

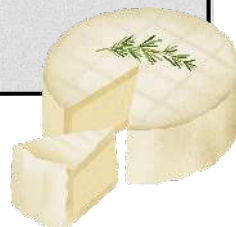


INDEPENDENT™
MEDICAL ALLIANCE

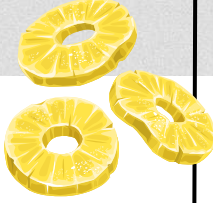
RDA (Recommended Daily Allowance) vs. ODI (Optimal Daily Intake) for Adults



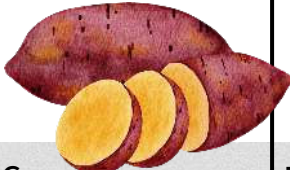
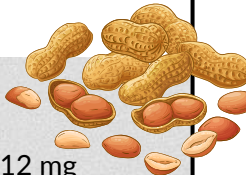
Vitamin A • RDA: 700 mcg • ODI: 1,500–2,000 mcg (retinol + carotenoids) • Food Sources: Liver, egg yolks, carrots, sweet potato	Vitamin D • RDA: 600 IU • ODI: 2,000–4,000 IU (blood level 40–70 ng/mL) • Food Sources: Fatty fish, egg yolks, sunlight	Vitamin E • RDA: 15 mg • ODI: 100–200 mg (mixed tocopherols) • Food Sources: Nuts, seeds, spinach, avocado	Vitamin K1 + K2 • RDA: 90 mcg • ODI: 150–300 mcg (MK-4 or MK-7) • Food Sources: Leafy greens, natto, egg yolk
Vitamin C • RDA: 75 mg • ODI: 500–2,000 mg • Food Sources: Citrus, bell peppers, berries	Thiamine (B1) • RDA: 1.1 mg • ODI: 25–100 mg • Food Sources: Pork, sunflower seeds, legumes	Riboflavin (B2) • RDA: 1.1 mg • ODI: 10–25 mg • Food Sources: Dairy, eggs, leafy greens	Niacin (B3) • RDA: 14 mg • ODI: 50–200 mg • Food Sources: Chicken, tuna, peanuts
Pantothenic Acid (B5) • RDA: 5 mg • ODI: 100–200 mg • Food Sources: Mushrooms, avocados, eggs	Vitamin B6 (Pyridoxine) • RDA: 1.3 mg • ODI: 25–50 mg (as P5P) • Food Sources: Salmon, bananas, chickpeas	Biotin (B7) • RDA: 30 mcg • ODI: 300–500 mcg • Food Sources: Egg yolks, nuts, seeds	Folate (B9) • RDA: 400 mcg (as folic acid) • ODI: 400–800 mcg (as L-5-MTHF) • Food Sources: Leafy greens, legumes, liver
Vitamin B12 • RDA: 2.4 mcg • ODI: 500–2,000 mcg (methyl or adenosyl form) • Food Sources: Meat, shellfish, dairy	Choline • RDA: 425 mg • ODI: 600–1,000 mg • Food Sources: Eggs, liver, soy, Brussels sprouts	Magnesium • RDA: 310–320 mg • ODI: 400–600 mg • Food Sources: Pumpkin seeds, leafy greens, almonds	Calcium • RDA: 1,000 mg • ODI: 800–1,200 mg (prefer food-based) • Food Sources: Sardines, dairy, tahini



RDA (Recommended Daily Allowance) vs. ODI (Optimal Daily Intake) for Adults

Zinc • RDA: 8 mg • ODI: 15–30 mg • Food Sources: Oysters, beef, pumpkin seeds	Iron • RDA: 18 mg • ODI: 20–60 mg (if ferritin is low) • Food Sources: Red meat, lentils, spinach	Copper • RDA: 900 mcg • ODI: 1,000–2,000 mcg (balance with zinc) • Food Sources: Liver, mushrooms, nuts	Selenium • RDA: 55 mcg • ODI: 100–200 mcg • Food Sources: Brazil nuts, tuna, eggs 
Manganese • RDA: 1.8 mg • ODI: 2–4 mg • Food Sources: Whole grains, legumes, pineapple 	Iodine • RDA: 150 mcg • ODI: 200–400 mcg (unless autoimmune thyroid) • Food Sources: Seaweed, dairy, iodized salt	Chromium • RDA: 25 mcg • ODI: 200–400 mcg • Food Sources: Broccoli, grape juice, meats	Molybdenum • RDA: 45 mcg • ODI: 100–250 mcg • Food Sources: Legumes, leafy greens, oats
Boron • No RDA • ODI: 3–6 mg • Food Sources: Apples, prunes, avocados 	Omega-3s (EPA/DHA) • No RDA • ODI: 1,000–2,000 mg • Food Sources: Fatty fish, algae oil, pastured eggs	Phosphorus • RDA: 700 mg • ODI: 1,000–1,200 mg (from food sources) • Food Sources: Meat, fish, dairy, lentils, nuts, pumpkin seeds, quinoa	Potassium • RDA (AI): 2,600 mg (female), 3,400 mg (male) • ODI: 3,500–4,700 mg (from food, not supplements)
Note: Both potassium and phosphorus are best obtained from whole foods, as supplement forms can impact kidney function or electrolyte balance if misused. Key Considerations: • Stress, chronic illness, pollution, medication use, and genetic polymorphisms all drive nutrient depletion beyond RDA assumptions. • Most RDAs don't reflect synergistic nutrient relationships, like: ◦ Magnesium + B6 + taurine ◦ Vitamin D + K2 + magnesium ◦ Iron + copper + vitamin A • The form matters: ◦ Folic acid vs. L-5-MTHF ◦ Magnesium oxide (poorly absorbed) vs. glycinate/malate 			

RDA (Recommended Daily Allowance) vs. ODI (Optimal Daily Intake) for Children (4-13 Years)

Vitamin A • RDA: 400–600 mcg • ODI: 800–1,200 mcg • Food Sources: Carrots, sweet potato, liver, eggs, pumpkin 	Vitamin D • RDA: 600 IU • ODI: 1,000–2,000 IU (target 40–60 ng/mL) • Food Sources: Sunlight, fortified milk, salmon, sardines, egg yolks	Vitamin E • RDA: 7–11 mg • ODI: 100 mg (mixed forms) • Food Sources: Sunflower seeds, spinach, almonds, avocado	Vitamin K1 + K2 • RDA: 55–60 mcg • ODI: 100–150 mcg • Food Sources: Leafy greens, cheese, natto, egg yolk 
Vitamin C • RDA: 25–45 mg • ODI: 250–1,000 mg • Food Sources: Citrus fruits, kiwi, berries, red bell peppers	Thiamine (B1) • RDA: 0.6–0.9 mg • ODI: 5–25 mg • Food Sources: Pork, beans, sunflower seeds, oats	Riboflavin (B2) • RDA: 0.6–0.9 mg • ODI: 5–15 mg • Food Sources: Dairy, eggs, green vegetables	Niacin (B3) • RDA: 8–12 mg • ODI: 25–50 mg • Food Sources: Chicken, turkey, peanuts, tuna
Pantothenic Acid (B5) • RDA: 3–5 mg • ODI: 25–50 mg • Food Sources: Mushrooms, yogurt, avocados, lentils 	Vitamin B6 (Pyridoxine) • RDA: 0.5–1.0 mg • ODI: 5–15 mg (as P5P) • Food Sources: Bananas, salmon, potatoes, chickpeas	Biotin (B7) • RDA: 12–20 mcg • ODI: 100–200 mcg • Food Sources: Eggs, nuts, seeds, cauliflower	Folate (B9) • RDA: 200–300 mcg • ODI: 400–600 mcg (as L-5-MTHF) • Food Sources: Leafy greens, legumes, asparagus
Vitamin B12 • RDA: 1.2–1.8 mcg • ODI: 250–500 mcg • Food Sources: Meat, fish, dairy, eggs	Choline • RDA: 250–375 mg • ODI: 400–600 mg • Food Sources: Eggs, broccoli, salmon, soybeans	Calcium • RDA: 1,000–1,300 mg • ODI: 800–1,200 mg (focus on bioavailable sources) • Food Sources: Dairy, sardines, tahini, leafy greens	Magnesium • RDA: 130–240 mg • ODI: 250–400 mg • Food Sources: Pumpkin seeds, leafy greens, oats 

RDA (Recommended Daily Allowance) vs. ODI (Optimal Daily Intake) for Children (4-13 Years)



Iron

- RDA: 10 mg
- ODI: Individualized based on ferritin (10–30 mg typical)
- Food Sources: Red meat, lentils, tofu, spinach

Zinc

- RDA: 5–8 mg
- ODI: 10–20 mg
- Food Sources: Beef, poultry, pumpkin seeds, cashews

Copper

- RDA: 440–700 mcg
- ODI: 800–1,200 mcg
- Food Sources: Liver, dark chocolate, seeds, nuts

Selenium

- RDA: 30–40 mcg
- ODI: 50–100 mcg
- Food Sources: Brazil nuts (tiny amounts!), tuna, eggs



Manganese

- RDA: 1.5–1.9 mg
- ODI: 2–3 mg
- Food Sources: Whole grains, spinach, pineapple



Chromium

- RDA: 15–25 mcg
- ODI: 100–200 mcg
- Food Sources: Broccoli, grape juice, whole grains

Molybdenum

- RDA: 22–34 mcg
- ODI: 50–100 mcg
- Food Sources: Lentils, leafy greens, oats

Iodine

- RDA: 90–120 mcg
- ODI: 150–200 mcg
- Food Sources: Seaweed, dairy, iodized salt

Boron

- No RDA
- ODI: 1–3 mg
- Food Sources: Apples, grapes, prunes, legumes

Omega-3s (EPA/DHA)

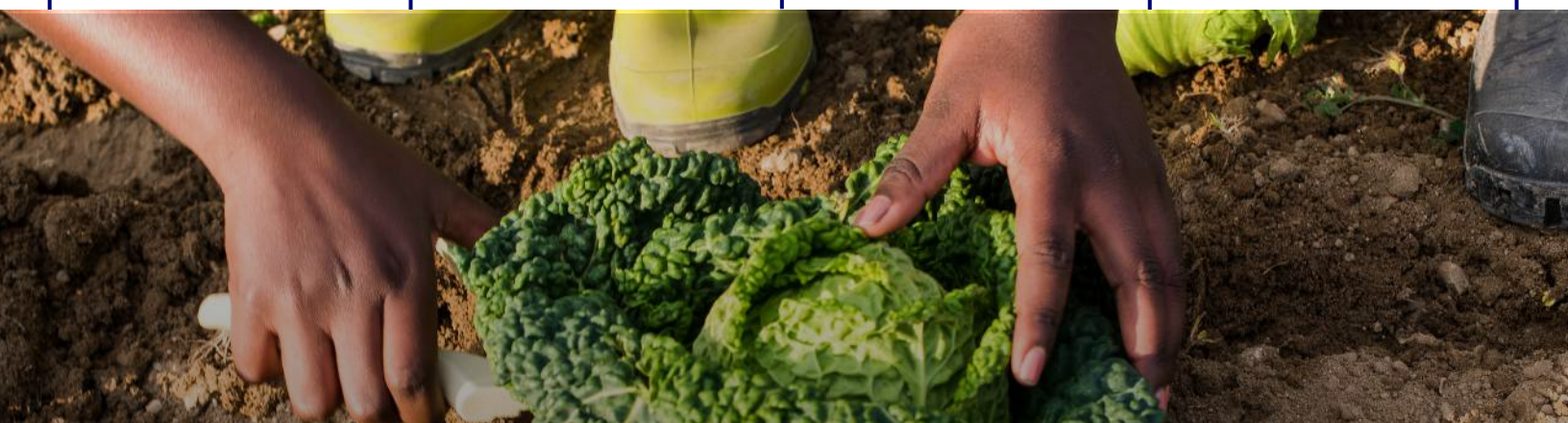
- No formal RDA
- ODI: 500–1,000 mg
- Food Sources: Salmon, sardines, flax oil, algae oil

Potassium

- RDA (AI): 3,000–4,500 mg
- ODI: 3,500–4,700 mg (from food, not supplements)
- Food Sources: Potatoes, bananas, yogurt, spinach, beans

Phosphorus

- RDA: 500–1,250 mg
- ODI: 1,000–1,200 mg
- Food Sources: Dairy, fish, lentils, nuts, poultry
- **Best from food not supplements**





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