
Nutrition & Fall Prevention

There are physiological decreases in muscle function and bone strength as we age. Older adults who fall are more likely to experience a bone fracture. Muscle weakness and reduced physical function increase risk of falls and fractures. Healthy lifestyle behaviors include regular exercise, specifically resistance and balance exercise has shown to reduce the risk of falls and fractures. Eating a well-balanced diet also plays an important role. Adequate intake of many nutrients are required for support and maintenance of bone and muscle health.

Risk Factors:

- Age >65 years are at higher risk of falls
- Underweight (body mass index less than 23)
- Chronic conditions: arthritis, diabetes, heart disease, neurological disorders
- Smoking and Alcohol intake (> 2 drinks/day men and >1 drink/day women)
- Cognitive Impairment (dementia)
- Difficulties with walking and balance
- Vision and hearing impairments
- Medication side effects and multiple medications
- Home hazards (broken/uneven steps, throw rugs or clutter)
- Inadequate exposure to sunlight
- Vitamin D deficiency
- Difficulty with chewing (poor dentition)
- Dehydration
- Not consuming enough calcium
- Vegetarian and Vegan diets

What can I do to prevent falls?

- Exercise regularly (meet with a physical therapist for specific recommendations)
- Consume adequate calories (meet with a registered dietitian for specific recommendations)

How much should I drink each day?

Fluid needs vary by individual. Factors that can impact fluid needs include illness, physical activity, weather, wounds, medications, and other health conditions.

According to the US Dietary Reference Intakes, older adults should aim to consume:

- Male: 13 cups (3.0 L) per day
- Female: 9 cups (2.2 L) per day

Consume Adequate Protein:

Protein is important for muscle and bone health. Eat protein at each meal and snacks.

- Cheese and Cottage Cheese
- Beans : black, lentils, chickpeas (Garbanzo beans), kidney, lima, etc
- Green peas
- Milk, Soy milk or Dry milk powder
- Eggs
- Greek Yogurt
- Fish, poultry, lean meat
- Nuts: peanuts, almonds, pistachios
- Nut Butter: peanut, almond
- Seeds: pumpkin, sunflower
- Soy beans: Edamame
- Tofu
- Veggie or soy patty
- Grains: Quinoa, Kamut, Teff, Amaranth

Vitamin D and Calcium:

They work together to promote muscle and bone health. You can get Vitamin D from the foods you eat and from sunlight. Calcium is in a variety of food. Food-first is the best source. If you are interested in supplementation, please speak with your medical provider.

Age	RDI (Recommended Daily Intake): Vitamin D
Adults: 19-30 years of age	600 IU/day or 15 mcg
Adults: 31-50 years of age	600 IU/day or 15 mcg
Adults: 51-70 years of age	600 IU/day or 15 mcg
Adults: > 70 years of age	800 IU/day or 20 mcg
Age/Gender	RDI (Recommended Daily Intake): Calcium
Adults: 19-30 years of age	1,000 mg/day
Adults: 31-50 years of age	1,000 mg/day
Men: 51-70 years of age	1,000 mg/day
Women: 51-70 years of age	1,200 mg/day
Adults: > 70 years of age	1,200 mg/day

Food	Serving Size	Amount of Vitamin D (mcg)
Trout	3 ounces	16
Cod liver oil	1 teaspoon	11
Salmon	3 ounces	11
Other fatty fish (flounder, sardines, sole, tuna)	3 ounces	3-4
Orange juice (fortified)	1 cup	3
Milk (fortified)	1 cup	3
Soymilk (fortified)	1 cup	3
Yogurt (fortified)	6 ounces	2
Food	Serving Size	Amount of calcium (mg)
Yogurt, plain or added fruit	8 ounces	275-450
Soymilk (fortified)	1 cup	300-370
Fish, Sardines	3 ounces	325
Milk	1 cup	275-305
Cheese	1 ounce	110-220
Tofu (fortified)	1/4 cup	215
Dry milk	1/4 cup	210
Orange juice (fortified)	1 cup	175-200
Fish, Salmon with soft bones	3 ounces	180
Green leafy vegetables (Bok choy, collard greens, kale, mustard greens, turnip greens, spinach)	1/2 cup cooked	50-135
Fish, Perch	3 ounces	115
Veggie or soy patty	1 each	100
Dried beans and peas	1/2 cup cooked	50-100
Okra	1/2 cup	90
Oatmeal	1/2 cup	85
Cottage Cheese	1/2 cup	80

Other Vegetables and Nutrients:

Aim for >5 servings per day with a diverse range

- Cruciferous: broccoli, cauliflower, cabbage, brussel sprouts
- Onions and garlic
- Green leafy: raw spinach, arugula, lettuce, beetroot