

LONGEVITY  
PERFORMANCE  
COACHING



Perform, feel and look better as you age



How to:  
**Get the essential  
Vitamins  
Minerals  
Fats  
Supplements to  
Perform,  
Feel  
& Look better  
as you age**

# Purpose

**To thrive as we age, our bodies need vital vitamins, minerals and fats, plus a boost from supplements.**

**This guide for adults 19+ outlines how to ensure you get them, but excludes advice for pregnant women.**

# Essential vitamins and what they do

## **Fat-Soluble Vitamins (Stored in Fat, Need Fats for Absorption)**

### **Vitamin A (Retinol, Beta-Carotene)**

Function: Supports vision, immune health, skin, and cell growth.

### **Vitamin D (Cholecalciferol, Ergocalciferol)**

Function: Helps calcium absorption, supports bone health, immune function, and mood.

### **Vitamin E (Tocopherol)**

Function: Acts as an antioxidant, protects cells from damage, supports skin and immune health.

### **Vitamin K (Phylloquinone, Menaquinone)**

Function: Aids in blood clotting, bone health.

## **Water-Soluble Vitamins (Not Stored, Need Regular Intake)**

### **Vitamin C (Ascorbic Acid)**

Function: Antioxidant, supports immune system, collagen production, and wound healing.

### **Vitamin B1 (Thiamine)**

Function: Helps convert food into energy, supports nerve function.

### **Vitamin B2 (Riboflavin)**

Function: Energy production, skin health, and antioxidant function.

### **Vitamin B3 (Niacin)**

Function: Supports metabolism, skin, brain function, and cholesterol levels.

### **Vitamin B5 (Pantothenic Acid)**

Function: Helps make hormones and metabolize fats and carbs.

### **Vitamin B6 (Pyridoxine)**

Function: Supports brain function, metabolism, and red blood cell production.

### **Vitamin B7 (Biotin)**

Function: Important for hair, skin, nails, and metabolism.

### **Vitamin B9 (Folate/Folic Acid)**

Function: Crucial for DNA synthesis, red blood cells, and fetal development.

### **Vitamin B12 (Cobalamin)**

Function: Supports nerve health, red blood cell production, and energy metabolism.

# Essential minerals and what they do

## Macrominerals (Needed in Larger Amounts)

### Calcium

Function: Strengthens bones and teeth, aids muscle function, nerve signaling, and blood clotting.

### Magnesium

Function: Supports muscle and nerve function, energy production, bone health, and heart rhythm.

### Potassium

Function: Regulates fluid balance, nerve signals, and muscle contractions (helps prevent cramps).

### Sodium

Function: Helps maintain fluid balance, nerve signals, and muscle contractions.

### Phosphorus

Function: Works with calcium for strong bones and teeth, helps make ATP (energy).

### Sulfur

Function: Supports protein structures (hair, skin, nails), detoxification, and metabolism.

### Chloride

Function: Helps maintain fluid balance and stomach acid production.

## Trace Minerals (Needed in Smaller Amounts)

### Iron

Function: Essential for oxygen transport in blood (hemoglobin) and energy production.

### Zinc

Function: Supports immunity, wound healing, DNA synthesis, and skin health.

### Copper

Function: Helps make red blood cells support immunity and brain function

### Iodine

Function: Supports thyroid function and hormone production.

### Selenium

Function: Powerful antioxidant, supports thyroid health and immune function.

### Manganese

Function: Supports bone formation, metabolism, and antioxidant function.

### Fluoride

**Function: Strengthens teeth and prevents cavities.**

### Chromium

Function: Helps regulate blood sugar by improving insulin function.

### Molybdenum

Function: Helps break down toxins and metabolize amino acids.

# Essential fats and what they do

**Essential fats, specifically omega-3 and omega-6 fatty acids, are crucial for overall health because your body cannot produce them on its own. Here's what they do:**

## **Brain & Nervous System Health**

Omega-3s (DHA) are key for brain development, memory, and cognitive function. Help prevent neurodegenerative diseases like Alzheimer's.

## **Heart Health**

Lower bad cholesterol (LDL) and increase good cholesterol (HDL). Reduce blood pressure and inflammation, lowering heart disease risk.

## **Reducing Inflammation & Supporting Immunity**

Omega-3s help reduce chronic inflammation, linked to arthritis and other diseases. Omega-6s (in balance) help with immune response and healing.

## **Skin & Hair Health**

Keep skin hydrated, reduce acne, and slow aging signs. Strengthen hair, preventing dryness and breakage.

## **Hormone Production & Regulation**

Essential for making hormones that control metabolism, mood, and stress.

## **Eye Health**

DHA (a type of omega-3) is vital for retinal function and reducing risk of dry eyes or macular degeneration.

## **Energy & Cell Function**

Essential fats are part of cell membranes, keeping cells functioning properly. Provide a slow-burning energy source.

# Recommended daily amounts to consume

- These values are general RDIs based on guidelines like those from the US National Institutes of Health (NIH) and World Health Organization (WHO).
- RDIs may vary based on country-specific recommendations.
- Consult a healthcare provider for personalised recommendations, especially for specific health conditions or dietary needs.

## Vitamin A

Men: 900 µg (micrograms) RAE/day  
Women: 700 µg RAE/day

## Vitamin C

Men: 90 mg/day  
Women: 75 mg/day  
Smokers: Add +35 mg/day

## Vitamin D

Adults (18–70 years): 15 µg (600 IU)/day  
Older Adults (>70 years): 20 µg (800 IU)/day

## Vitamin E

Adults: 15 mg/day

## Vitamin K

Men: 120 µg/day  
Women: 90 µg/day

## Vitamin B1 (Thiamin)

Men: 1.2 mg/day  
Women: 1.1 mg/day

## Vitamin B2 (Riboflavin)

Men: 1.3 mg/day  
Women: 1.1 mg/day

## Vitamin B3 (Niacin)

Men: 16 mg NE/day  
Women: 14 mg NE/day

## Vitamin B5 (Pantothenic Acid)

Adults: 5 mg/day

## Vitamin B6

Adults (19–50 years): 1.3 mg/day  
Men (≥51 years): 1.7 mg/day  
Women (≥51 years): 1.5 mg/day

## Vitamin B7 (Biotin)

Adults: 30 µg/day

## Vitamin B9 (Folate)

Adults: 400 µg DFE/day

## Vitamin B12 (Cobalamin)

Adults: 2.4 µg/day

## Calcium

Adults (19–50 years): 1,000 mg/day  
Women (≥51 years): 1,200 mg/day  
Men (≥71 years): 1,200 mg/day

## Iron

Men: 8 mg/day  
Women (19–50 years): 18 mg/day  
Women (≥51 years): 8 mg/day

## Magnesium

Men: 400–420 mg/day  
Women: 310–320 mg/day

## Phosphorus

Adults: 700 mg/day

## Potassium

Adults: 3,400 mg/day (men)  
2,600 mg/day (women)

## Sodium

Adults: <2,300 mg/day

## Zinc

Men: 11 mg/day  
Women: 8 mg/day

## Copper

Adults: 900 µg/day

## Manganese

Men: 2.3 mg/day  
Women: 1.8 mg/day

## Selenium

Adults: 55 µg/day

## Iodine

Adults: 150 µg/day

## Chromium

Men: 35 µg/day  
Women: 25 µg/day

## Fluoride

Men: 4 mg/day  
Women: 3 mg/day

## Molybdenum

Adults: 45 µg/day

## Omega-6 (Linoleic Acid - LA)

2.5–9% of total energy intake

## Omega-3 (Alpha-linolenic Acid - ALA, EPA & DHA)

ALA: At least 0.5–2% of total energy intake  
EPA + DHA: 250–500 mg/day for general health

# The food to consume: Vitamins

**Vitamin A:** Liver, carrots, sweet potatoes, spinach, kale, eggs, milk, and cheese.

**Vitamin C:** Oranges, strawberries, kiwi, bell peppers, broccoli, Brussels sprouts, and tomatoes.

**Vitamin D:** Oily fish (salmon, mackerel, sardines), eggs, fortified cereals, and sunlight exposure.

**Vitamin E:** Nuts (almonds, sunflower seeds), vegetable oils (sunflower, safflower), spinach, and avocados.

**Vitamin K:** Leafy greens (kale, spinach, broccoli), Brussels sprouts, and green beans.

**Vitamin B1 (Thiamin):** Whole grains, pork, sunflower seeds, legumes, and fortified cereals.

**Vitamin B2 (Riboflavin):** Milk, eggs, lean meats, mushrooms, and green vegetables.

**Vitamin B3 (Niacin):** Meat, fish, poultry, whole grains, and peanuts.

**Vitamin B5 (Pantothenic Acid):** Avocados, mushrooms, sweet potatoes, whole grains, and chicken.

**Vitamin B6:** Poultry, bananas, potatoes, fortified cereals, and spinach.

**Vitamin B7 (Biotin):** Eggs, nuts, seeds, sweet potatoes, and salmon.

**Folate (Vitamin B9):** Leafy greens, beans, peas, lentils, and fortified cereals.

**Vitamin B12:** Meat, fish, dairy products, eggs, and fortified plant-based milk.

# The food to consume: Minerals

## **Macrominerals (Needed in Larger Amounts)**

**Calcium:** Dairy products, fortified plant-based milk, sardines, tofu, and leafy greens (e.g., kale).

**Phosphorus:** Dairy, meat, fish, nuts, and legumes.

**Magnesium:** Nuts (almonds, cashews), seeds (pumpkin, sunflower), spinach, and whole grains.

**Potassium:** Bananas, oranges, potatoes, spinach, and beans.

**Sodium:** Table salt, processed foods, cheese, and cured meats (consume in moderation).

**Sulphur:** Garlic, onions, eggs, cruciferous vegetables (broccoli, cabbage).

**Chloride:** Salt, seaweed, tomatoes, celery.

## **Trace Minerals (Needed in Smaller Amounts)**

**Iron:** Red meat, poultry, fish, lentils, beans, spinach, and fortified cereals.

**Zinc:** Meat, shellfish, legumes, nuts, seeds, and whole grains.

**Iodine:** Fish, dairy, eggs, seaweed, and iodized salt.

**Selenium:** Brazil nuts, seafood, eggs, and whole grains.

**Copper:** Shellfish, seeds, nuts, whole grains, and chocolate.

**Manganese:** Nuts, whole grains, tea, leafy vegetables, and pineapple.

**Fluoride:** Fluoridated water, tea, fish, and toothpaste (for topical application).

**Molybdenum:** Legumes, grains, nuts, and leafy greens.

**Chromium:** Broccoli, whole grains, nuts.

# The food to consume: Fats

**Omega-3 Fatty Acids:** Salmon, mackerel, sardines, anchovies, tuna, trout, chia seeds, flaxseeds & flaxseed oil, walnuts, hemp seeds, eggs (Omega-3 Enriched)

**Omega-6 Fatty Acids:** Sunflower, safflower, soybean, and corn oil; almonds, sunflower seeds, cashews, walnuts, soybeans, tofu brown rice, oats, quinoa

**For balance, focus on eating more omega-3-rich foods while limiting excessive omega-6 sources**

# But...

**The amount you can get from food varies due to the way it is produced, stored and prepared.**

**Supplements are needed to ensure you get the recommended amounts.**

# Supplement Goals

## Foundation

**Ensure  
you get  
essential  
vitamins  
and  
minerals**

## Prevent

**Offset the  
degradation  
of tissue  
and cells as  
we age**

## Health span

**Target the  
biological  
processes of  
aging**

# Foundation: what you should take

- **A quality multivitamin covering all the essential vitamins and minerals for your gender and age**
- **A high quality Omega-3 supplement that has been stabilised with antioxidants to improve the delivery of EPA and DHA, as these deliver most of the health benefits.**
- **If you live in a place that doesn't get sunlight in winter or don't spend much time outside each day, additional vitamin D is needed.**
- **A morning electrolyte drink including magnesium, sodium, potassium and zinc.**
- **If you are female or older when your ability to absorb iron reduces, an iron supplement may also be required.**

# Prevent: what you should take

As we get older, our bodies experience cell damage and inflammation, limiting our capabilities..

There are four prevent goals

## 1. Maintain joint health

There are 360 essential joints in the body. 90% of these have cartilage in them that erodes over time with use.

## 2. Minimise inflammation

Inflammation can be caused by physical stress to muscles and joints but more importantly through stress of the immune system. High inflammation markers in your blood are a strong indicator that you have health risks.

The gut microbiome, the community of trillions of bacteria, viruses, fungi, and other microbes in the digestive tract, plays a critical role in regulating inflammation throughout the body. Its influence stems from its ability to interact with the immune system, modulate gut permeability, and produce bioactive compounds. It's thought that 70% of your immune system is housed in the gut.

## 3. Maintain muscle mass

Muscle is affected by muscle wasting called sarcopenia as we age. Without muscle mass we can't move or function effectively. Lack of movement leads to joint health issues and a reduction in cardiovascular function.

## 4. Maintain heart health

The biggest killer is cardiovascular disease, especially the build up of plaque in arteries leading to heart attacks or strokes. Reducing the rate of build up is important which should be via exercise and diet with supplements (and for high risk cases medication) providing additional support.

This is the area where there are lots of opinions and different options so I will just focus on the supplements that have the most evidence and support.

- **Glucosamine - maintain joint health**
- **Collagen - maintain joint health**
- **Turmeric - the Curcumin compound in turmeric reduces inflammation**
- **Omega-3 - reduces inflammation and maintains heart health**
- **Probiotic - restores the health gut microbiome and improves the immune systems ability to combat inflammation**
- **Creatine - boosts muscle strength and brain function**

# Health span: what you should take

Longevity supplements are substances or compounds that aim to promote health span (the period of life spent in good health) and potentially extend lifespan by targeting the biological processes of aging. These supplements work through mechanisms like reducing inflammation, enhancing cellular repair, improving mitochondrial function, and combating oxidative stress.

In addition to the foundational and preventative ones already mentioned the most commonly referenced and researched are:

- **Nicotinamide Mononucleotide (NMN) and Nicotinamide Riboside (NR):** This is a precursor to NAD , a molecule essential for energy production, DNA repair, and cellular health. NAD levels decline with age, contributing to aging-related cellular dysfunction. Taking this can lead to improved mitochondrial function, enhanced DNA repair, and better energy metabolism.
- **Coenzyme Q10 (CoQ10):** Which is a powerful antioxidant that supports mitochondrial energy production. Protects cells from oxidative stress and improves energy levels, especially in aging tissues.
- **Magnesium Glycinate:** Known for its calming properties, excellent for sleep. Quality of sleep is one of the most important health span optimising factors. Taking 200 mg to 400 mg of elemental magnesium daily, taken about 30–60 minutes before bedtime can optimise sleep.

# Supplement Checklist

- These are general guidelines.
- Consult a Doctor for personalised recommendations, especially for specific health conditions, dietary needs or compatibility with prescription medication

**Aim to consistently eat the recommended foods and take Foundation and Prevent supplements everyday.**

**Take Health Span supplements once you have Foundation and Prevent locked into a consistent daily routine.**

## Foundation

Multivitamin

Electrolyte drink

Omega-3

Iron

Vitamin D

## Prevent

Glucosamine

Turmeric

Omega-3

Probiotic

Collagen

Creatine

## Health span

Magnesium Glycinate

CoQ10

Nicotinamide  
Mononucleotide (NMN)



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