



# Top 10 micronutrients for a Better Health

Presentation from the Linus  
Pauling Institute  
- Oregon State University



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Aging Well: Top 10 Micronutrients for Optimal Heal...

**AGING WELL.**



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# THE TOP 10 MICRONUTRIENTS FOR OPTIMAL HEALTH



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**ALEX  
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**MORE VIDEOS**



Oregon State University  
Linus Pauling Institute

6 IN 10

Adults in the US  
have a **chronic disease**



4 IN 10

Adults in the US  
have **two or more**

## THE LEADING CAUSES OF DEATH AND DISABILITY and Leading Drivers of the Nation's **\$3.5 Trillion** in Annual Health Care Costs



HEART DISEASE



CANCER



CHRONIC LUNG  
DISEASE



STROKE



ALZHEIMER'S  
DISEASE



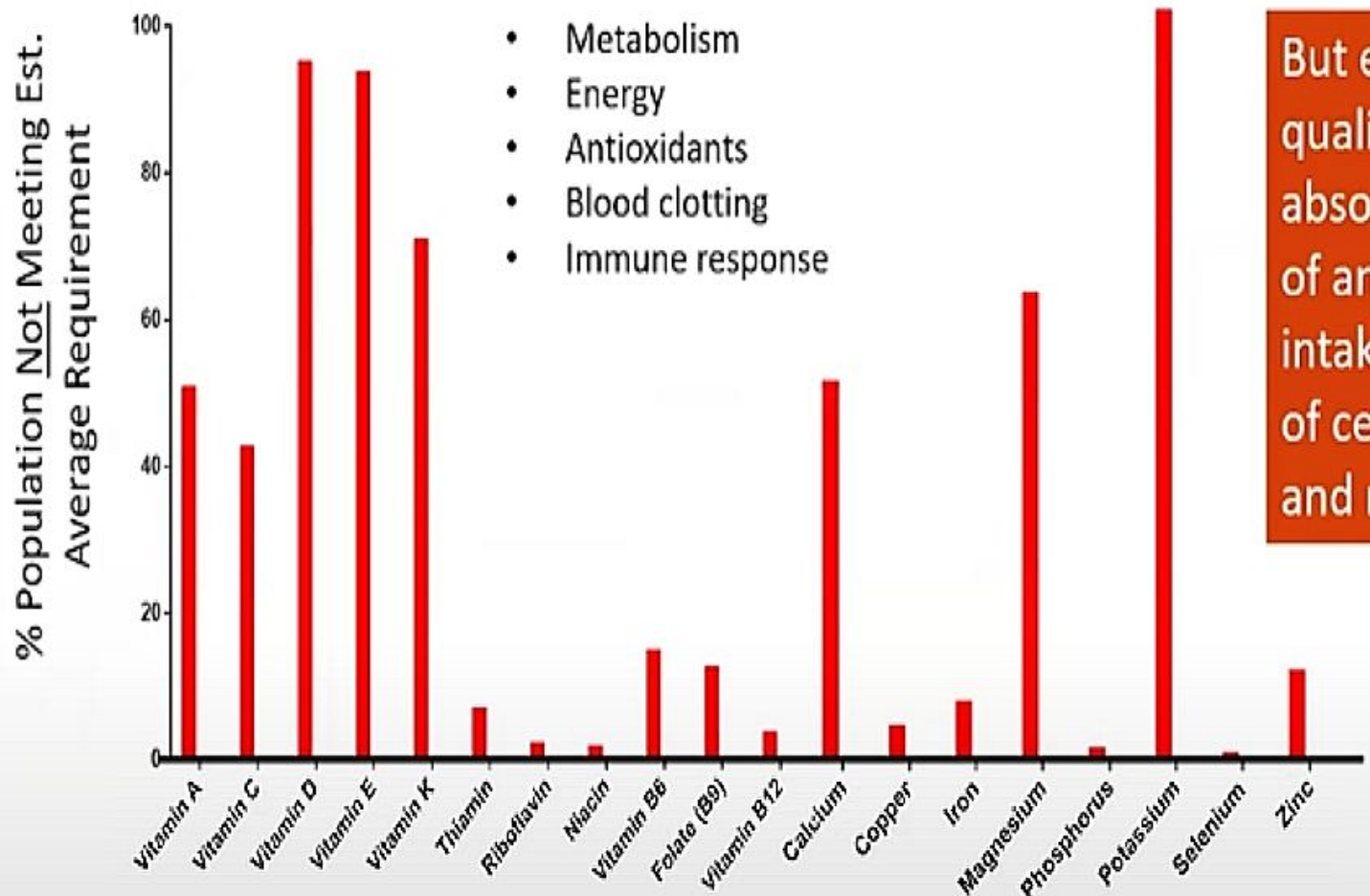
DIABETES



CHRONIC  
KIDNEY DISEASE



# Quality Foods Also Supply Vitamins and Minerals Too!

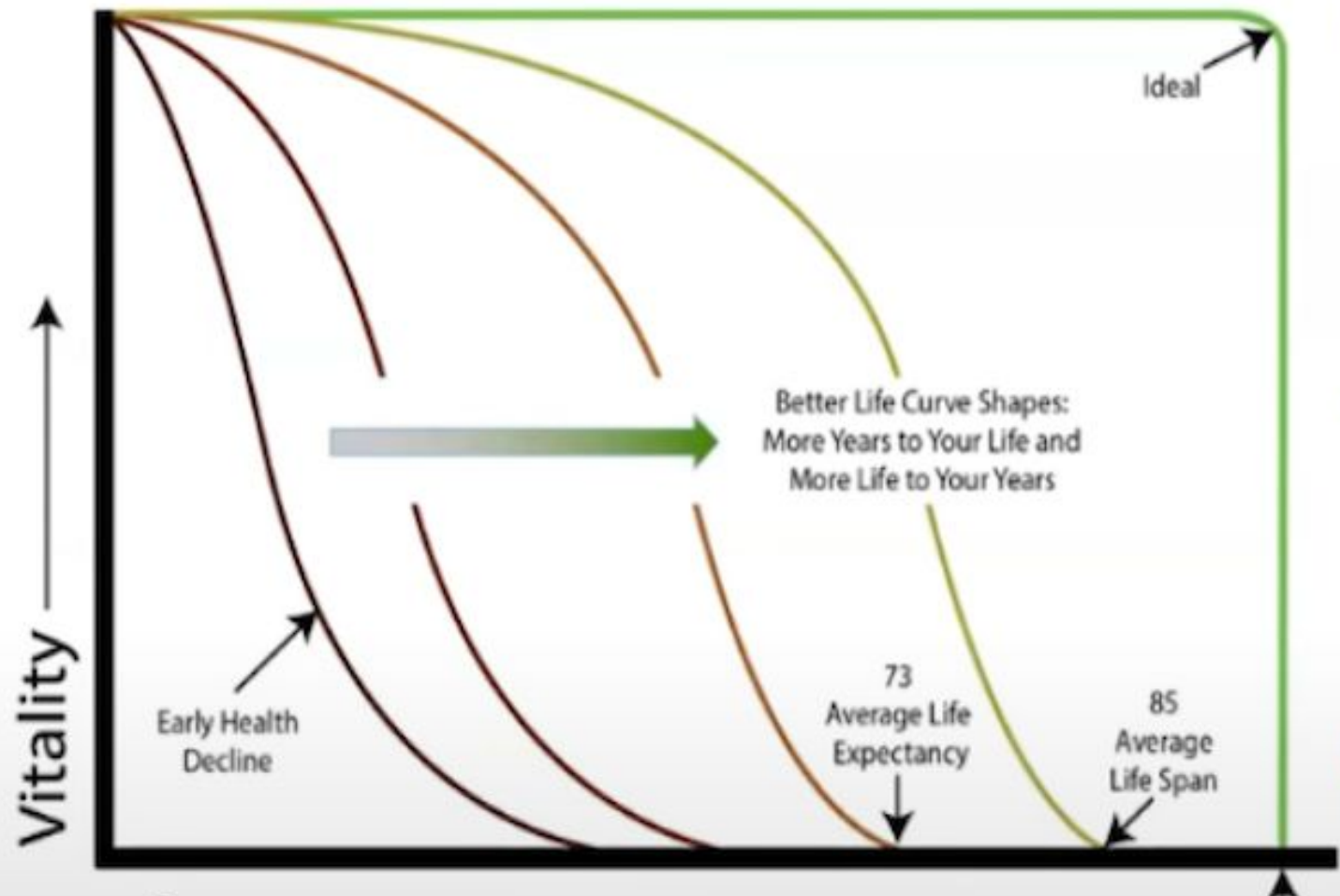


But even a high-quality diet isn't absolute assurance of an adequate intake of certain vitamins and minerals

# Improving Healthspan



...e Longer  
...er



# NUTRIENT-RICH DIET

Vitamins and minerals (called micronutrients) come from the foods that we eat. Eating foods high in vitamins and minerals helps keep you healthy.



To help address any nutrient gaps, **the Linus Pauling Institute recommends that all adults take a daily multivitamin.** This multivitamin should have 50-100% of the DV (Daily Value) for most vitamins and minerals.

50+

VITAMIN B<sub>12</sub>



VITAMIN C

50+

50+

VITAMIN D



VITAMIN K

50+

CALCIUM



MAGNESIUM

50+

POTASSIUM



ZINC

50+

# VITAMIN B<sub>6</sub>

## FOUND IN...

Meat, poultry, fish, nuts, bananas, and potatoes

## SUPPORTS...



Immune  
health



Bone  
health



Skin  
health

## OTHER INFO

Vitamin B<sub>6</sub> absorption can decline with age. Inflammation might influence your B<sub>6</sub> status.

## RECOMMENDED INTAKE

Adults (19-50): 1.3 mg/day  
Adults (50+): 1.7 mg/day

**50+**



# VITAMIN B<sub>12</sub>

## FOUND IN...

Meat, poultry, fish, eggs, and some dairy products

## OTHER INFO

Poor vitamin B<sub>12</sub> absorption is very common in older adults and in those taking certain medications (such as antacids and metformin). Older adults should take supplements.

## SUPPORTS...



Cognitive health



Immune health



Muscle and nerve function

## RECOMMENDED INTAKE

Adults (19-50): 2.4 mcg/day

Adults (50+): 100-400 mcg/day from supplements

**50+**

# VITAMIN C

## FOUND IN...

Berries, citrus fruit, kiwifruit, bell peppers, Brussels sprouts, and broccoli

## OTHER INFO

The vitamin C content is reduced when foods are cooked or otherwise processed. The best sources are raw or lightly cooked foods.

## SUPPORTS...



Cognitive health



Immune health



Bone health



Wound healing



Skin health

## RECOMMENDED INTAKE

All adults: at least 400 mg/day

**50+**

# VITAMIN D

## FOUND IN...

Salmon, dairy products, and some mushrooms

## OTHER INFO

Ask your healthcare provider to check the level of vitamin D in your blood. The LPI recommends maintaining blood levels of 30 ng/mL or higher.

## SUPPORTS...



Cognitive health



Immune health



Bone health



Skin health

## RECOMMENDED INTAKE

All adults: 2000 IU/day from supplements

50+

# VITAMIN E

## FOUND IN...

Avocados, olives, nuts, seeds, vegetable oils, and green leafy vegetables, such as kale and spinach

## OTHER INFO

Synthetic vitamin E (dl-alpha on labels) is not as bioavailable as natural vitamin E (d-alpha).

## SUPPORTS...



Cognitive health



Immune health



Skin health



Wound healing

## RECOMMENDED INTAKE

All adults: 15 mg/day

# VITAMIN K

## FOUND IN...

Kale, chard, broccoli, spinach, parsley, and fermented foods, such as yogurt and kimchi

## OTHER INFO

Large quantities of vitamin K from foods or supplements can interfere with medications involved with blood clotting, such as warfarin.

## SUPPORTS...



Muscle and  
nerve function



Bone  
health



Wound  
healing

## RECOMMENDED INTAKE

Men: 120 mcg/day

Women: 90 mcg/day

**50+**

# CALCIUM

## FOUND IN...

Dairy products, sardines, broccoli, almonds, and calcium-fortified juices and plant-based milks

## SUPPORTS...



Muscle and  
nerve function



Bone  
health

## OTHER INFO

Focus on food sources to meet your calcium needs. Multivitamins typically contain little calcium.

## RECOMMENDED INTAKE

Men (19-70): 1000 mg/day  
Men (70+): 1200 mg/day  
Women (19-50): 1000 mg/day  
Women (50+): 1200 mg/day

**50+**

# MAGNESIUM

## FOUND IN...

Broccoli, beans, peanuts, nuts, spinach, and whole grains, such as brown rice

## OTHER INFO

Adults shouldn't take more than 350 mg/day from supplements. High doses of supplemental magnesium can cause diarrhea and/or kidney damage.

## SUPPORTS...



Fluid balance and blood pressure



Muscle and nerve function



Bone health

## RECOMMENDED INTAKE

Men: 420 mg/day

Women: 320 mg/day

**50+**

# POTASSIUM

## FOUND IN...

Most fruit and vegetables, beans and lentils, white and sweet potatoes with skin, yogurt, and fish

## OTHER INFO

Eat at least 5 servings of fruit and vegetables each day to meet your potassium needs. Avoid fried food sources, such as chips or french fries.

## SUPPORTS...



Fluid balance and  
blood pressure



Muscle and  
nerve function



Bone  
health

## RECOMMENDED INTAKE

Men: 3400 mg/day

Women: 2600 mg/day



# ZINC

## FOUND IN...

Meat, poultry, shellfish, dairy products, nuts, and beans and other legumes

## OTHER INFO

Beans, seeds, nuts, and grains have compounds that can reduce the amount of zinc your body can absorb, but these are still relatively good sources of zinc.

## SUPPORTS...



Immune  
health



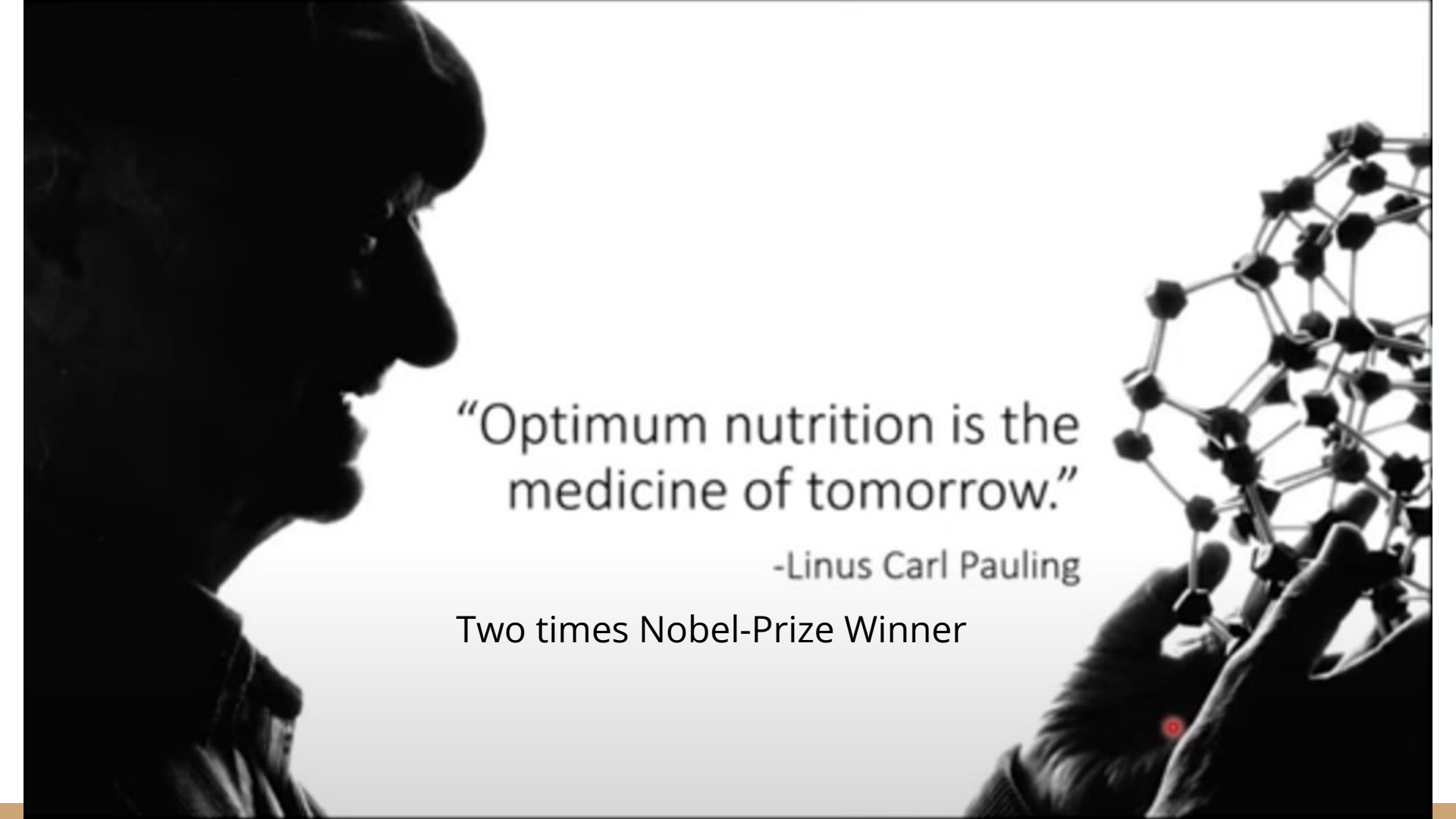
Wound  
healing

## RECOMMENDED INTAKE

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

50+



A black and white image featuring a silhouette of Linus Pauling on the left side, looking towards the right. On the right side, there is a ball-and-stick molecular model of a complex organic structure, possibly a protein or a large molecule, held by a hand. The background is a light gradient.

“Optimum nutrition is the  
medicine of tomorrow.”

-Linus Carl Pauling

Two times Nobel-Prize Winner