

# **Smart Supplements: What's Worth Taking for Long, Healthy Years**



**Presented by the Palm Beach Center for Health and Longevity**

**Your Health Coach and Today's Presenter: Curtis Arnold**



## Food as Longevity Medicine: What to Eat After 40



In the first seminar of this series, you learned that **our industrial food supply lacks the nutrients** required to protect us from metabolic diseases (cancer, cardiovascular disease, Alzheimer's, and diabetes).

# Should you consider taking supplements?



Supplements can fill the nutritional gaps in your diet.

# Where are your gaps?



We all have different supplement needs.



You may have specific health conditions and genetics that warrant nutritional attention.

# Methylation



Methylation genes convert raw materials to a usable form.



Abnormal methylation patterns can **dysregulate gene expression** and are implicated in cancer, aging, and other neurodevelopmental disorders.



# DNA Methylation Test



Cheek Swab

# Increased Nutritional Needs Due to Aging



Aging can lead to **reduced absorption and utilization of nutrients** due to the stomach's decrease in acid production.

This affects the absorption of **B12, Calcium, and Iron**.

**B12, Calcium, and Iron**

# Increased Nutritional Needs Due to Aging



The intestinal lining may become less efficient, reducing the absorption of fat soluble vitamins - **A, D, E, and K.**

**A, D, E, and K**

# These Supplements Can Fill Gaps



- **Calcium** - to prevent Osteoporosis.
- **B12** - to support nerve function and red blood cell production.
- **Omega 3's** - to support heart health and cognitive function.

# Immune Function Weakens with Age



- Immune function weakens with age, increasing risk of illness.
- Zinc, vitamin C, and D support the immune system.

Zinc, Vitamin C and D

# Cognitive Function and Brain Health Weaken with Age



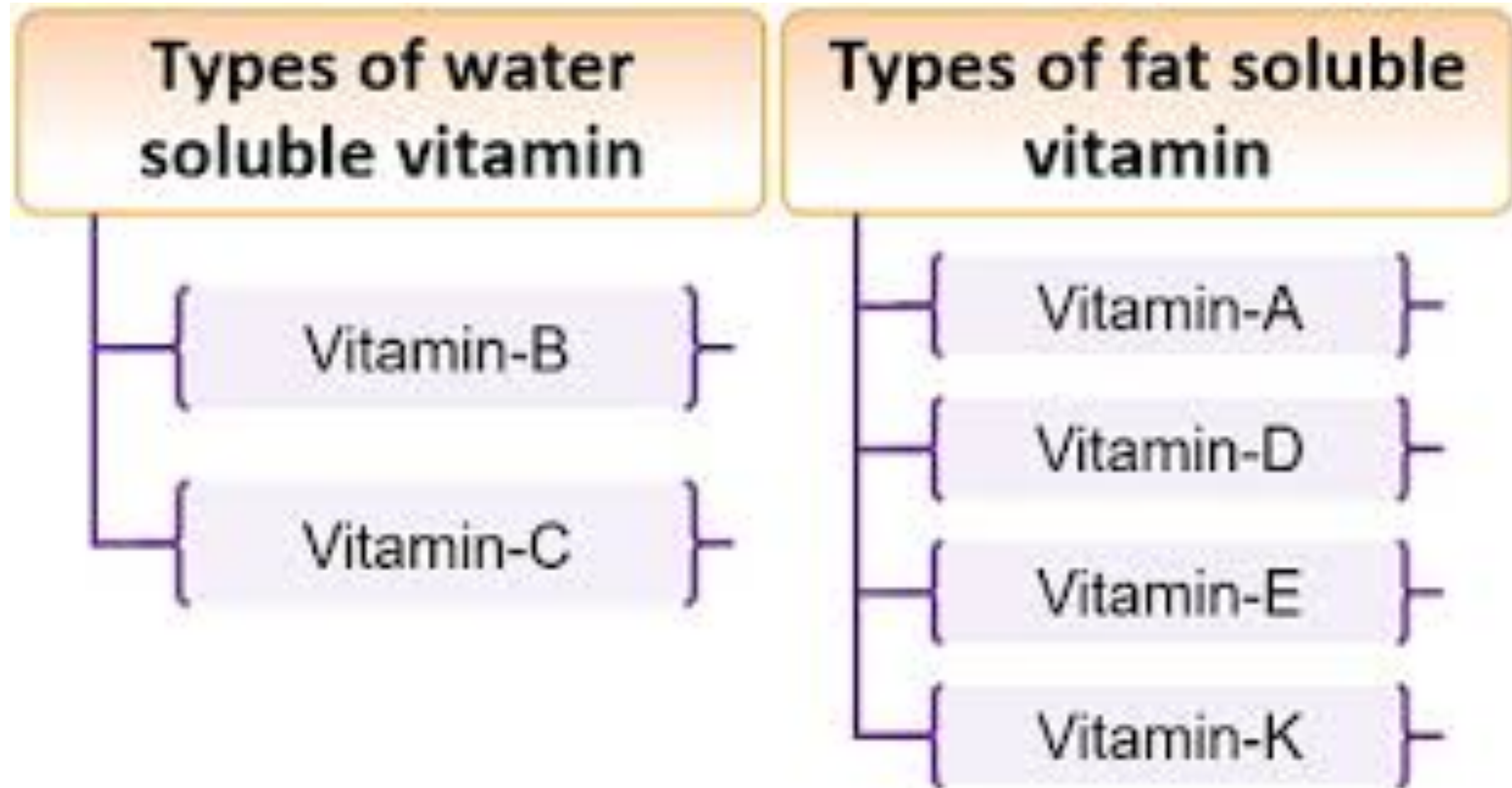
Omega 3s and B vitamins support **brain health**.

# Summary Slide - Reasons to Consider Supplements



1. Soil depletion and modern food processing has reduced the quality of our food.
2. You may have specific health needs or genetic requirements.
3. Aging leads to reduced absorption and utilization of nutrients.
4. Supplements can support immune function.

# Two Types of Vitamins



# The Important Difference



**Water soluble** vitamins are easily absorbed into the bloodstream and are not stored. They must be replaced regularly.

**Fat soluble** vitamins are stored in the body's fatty tissue and liver. If consumed in excess they can be toxic.

# Polyphenols

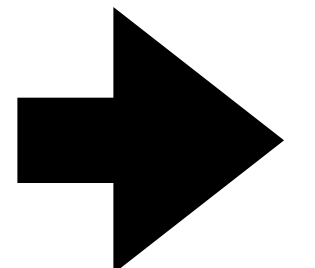
## Definition



They are antioxidants and protect cells from free radical damage.

They can be taken in supplement form, but getting polyphenols from your diet is preferable.

Here's how



# Foods High in Polyphenols



Blueberries



Dark chocolate



Coffee



Green Tea



Extra virgin olive

# A Deep Dive into the Most Critical Supplements to Consider



# Fish Oil - Omega 3s

Benefit #1

Heart Health



- Lowers blood pressure and triglycerides.
- Improves blood vessel function and reduces risk of stroke.
- Reduces risk of heart attacks.

# Fish Oil - Omega 3s

Benefit #2

**Brain Health**



Supports brain cells.

May slow cognitive decline and dementia risk.

Shown to improve memory and mood in older adults.

# Fish Oil - Omega 3s

Benefit #3

**Joint Health**



Reduces joint stiffness and arthritis pain.

Eases chronic inflammation.

Supports mobility.

# Fiber - Psyllium Husk

Benefit #1

Digestive Health



Bulks stool and eases constipation.

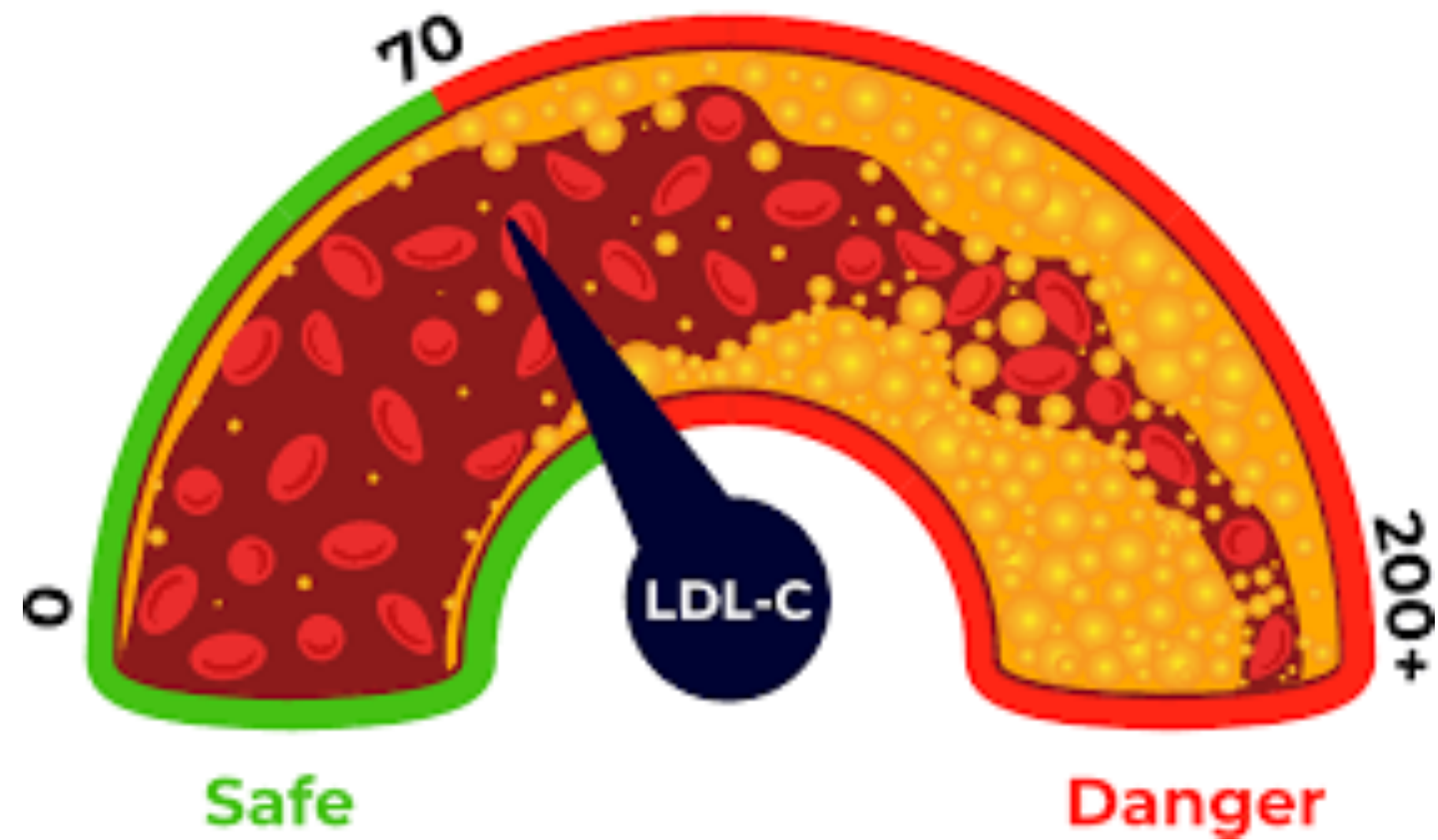
Supports regular bowel movement.

Acts as a prebiotic, fostering healthy gut bacteria.

## Benefit #2

### Heart Health

# Fiber - Psyllium Husk



Reduces risk of heart disease.

Stabilizes blood sugar, aiding diabetes management.

## Fiber - Psyllium Husk



Benefit #3

Weight management



Lowers “bad” cholesterol by binding bile acids.

Reduces appetite by promoting a feeling of fullness.

*Try 5 - 10 grams mixed in water before a meal and see if you eat less.*

# Whey Protein



Casein or Plant-based protein are less potent, but acceptable alternatives.

# Whey Protein

## Benefit #1

Muscle growth and repair



Rich in **Leucine**, an amino acid that is the primary trigger for protein synthesis.

Rapid absorption, best used post workout.

# Whey Protein

## Benefit #2

### Weight management



Releases hormones that **signals fullness.**

**Burns calories** - Digestion burns more calories than carbs or fats.

**Preserves lean muscle mass** when trying to lose weight.

# Whey Protein

## Benefit #3

Enhances strength and recovery



Provides the amino acids needed to repair muscle tissue damage during exercise.

Reduces muscle soreness and recovery time.

# Whey Protein

## Benefit #4

Works as an antioxidant



Rich in **cysteine**, which your body uses to produce **glutathione**, one of the body's most powerful antioxidants.

May reduce **blood pressure**.

Helps manage **blood sugar**.

# Whey Protein

Who can benefit most?

- Anyone who works out.
- Anyone wanting to lose weight.
- Older adults.
- Anyone recovering from illness or surgery.
- Vegetarians.



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# Creatine



An extremely popular supplement that can benefit both your **muscles** and your **brain**.

# Creatine

What is creatine?



- A compound made by the body and stored in muscle cells.
- Obtained by eating meat or fish or by supplementing.

# Creatine

## Benefit #1

Improved exercise performance

Helps produce ATP (energy) during exercise resulting in more strength, power, and endurance during your workout.



# Creatine

## Benefit #2

Increased muscle mass

Can lead to gains in muscle mass by stimulating protein synthesis.

This is especially true when combined with resistance training.



# Creatine

## Benefit #3

### Cognitive benefits

New research suggests creatine may improve energy availability in the brain and **enhance memory, focus, and mental clarity.**



## Benefit #4

Extensively tested and safe



# Creatine

Creatine monohydrate has been widely studied and considered safe for healthy individuals.

5 grams daily is the recommended dosage for muscle support, but to cross the blood brain barrier some researchers claim 10 grams daily is required.

# Vitamin D3/K2

A must have vitamin combination



# What is Vitamin D3?



A fat soluble vitamin that supports calcium levels, which are vital for bone health, muscle function, and immune system support.

# Vitamin D Deficiency



Up to 70% of Americans have suboptimal levels because of diet or lack of sunlight.

Winter months in northern areas are particularly problematic.

# Vitamin D3 - Benefits



- Boosts immune system.
- Supports bone health.
- Improves mood.
- Reduces inflammation.

Results: Protection against osteoporosis, depression, arthritis, and heart disease.

# Vitamin D3 plus K2



K2 increases the effectiveness of D3, ensuring optimal immune response.

# The Role of K2



- Prevents calcium from depositing in the arteries, reducing the risk of atherosclerosis.

- Helps maintain healthy teeth by supporting proper calcium utilization.



# Vitamin C - What is it?

Water soluble vitamin only obtained through diet or supplements.



## Top Five Fruits

Blackberries

Oranges

Strawberries

Papaya

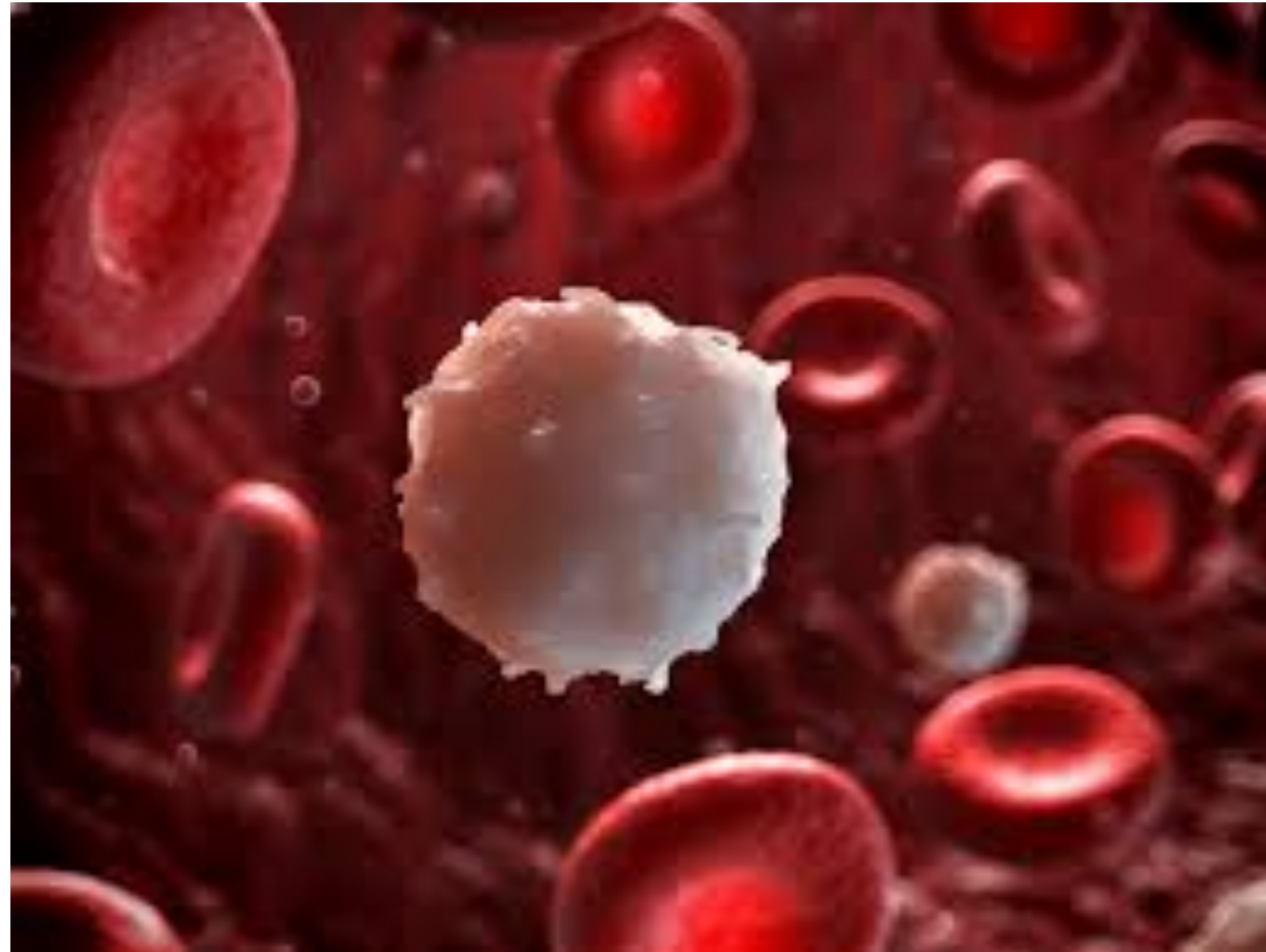
Lemons

Kiwi

# Vitamin C - Benefits

Benefit #1

White blood  
cells



Increases the production of **white blood cells**, improving the body's ability to fight infections.

# Vitamin C - Benefits

Benefit #2

Free radicals  
scavenger



Reduces the risk of chronic disease by protecting the cells from damage by free radicals.

# Vitamin C - Benefits

Benefit #3

Collagen  
support



Essential for collagen formation, which supports skin structure and wound healing

# Vitamin C - Benefits

Benefit #4

May prevent  
Anemia



Improves iron absorption, preventing iron deficiencies and anemia.

# Magnesium

## What is it?

Magnesium is an **essential mineral** that plays a crucial role in over 300 enzymatic reactions, including:

- Energy production
- Protein synthesis
- Muscle and nerve function
- Blood glucose control



# Magnesium - called “the invisible deficiency”



The body cannot make magnesium.  
You must get it from your **diet or supplements.**

The American Osteopathic Foundation estimates that up to **50%** of the U.S. population is deficient.

# Magnesium - Benefits

## Benefit #1

Improves sleep  
quality



Improves **sleep quality** by regulating melatonin production.

# Magnesium - Benefits

Benefit #2

Migraine relief



May help reduce the severity and frequency of **migraines**.

# Magnesium - Benefits

Benefit #3

Diabetes management

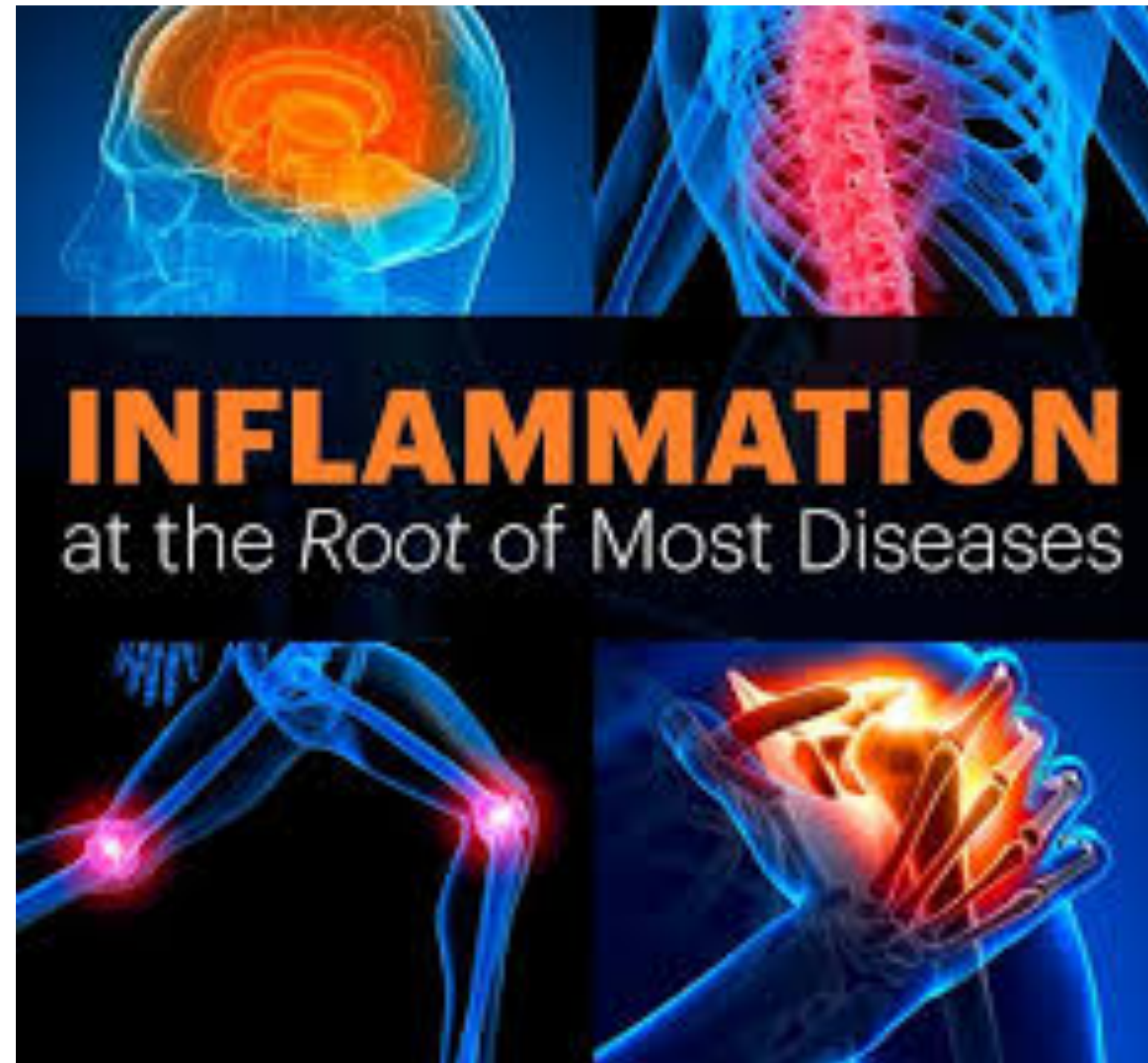


Helps regulate blood sugar levels and insulin sensitivity, which can be beneficial for people with Type 2 Diabetes.

# Magnesium - Benefits

Benefit #4

Anti-inflammatory effects



Shown to reduce overall **inflammation**, which is how most chronic diseases start.

# CoQ10

## What is it?

- A vital antioxidant.
- Found in the heart, liver, and kidneys.



Essential for energy production at the cellular level,  
specifically in the **mitochondria**.

# CoQ10

## Key Benefits

### Enhances Heart Health



- Shown to reduce the risk of heart disease.
- Combats fatigue and improves physical performance.
- May be effective in reducing the frequency and duration of migraines.

# Collagen

What is it?



- Collagen is the most abundant **protein** in our body.
- It provides the **structure** for skin, bones, and connective tissue.
- As we age, **our bodies produce less collagen.**

# Collagen - Benefit #1

## Key Benefits

Improved skin health



Enhances skin elasticity and hydration, reducing wrinkles and fine lines.

# Collagen - Benefit #2

Key Benefits

Joint and bone  
support



Maintains cartilage integrity and bone density,  
reducing joint pain and improving mobility.

# Collagen - Benefit #3

## Key Benefits

Promotes  
hair  
and nail  
growth



# MCT Oil

## What is MCT Oil?

- A saturated fatty acid.
- Stands for medium chain triglyceride.
- Primarily derived from coconut oil.



# MCT Oil - Benefit #1

## Key Benefits

Quick energy  
source



Easily absorbed and converted into Ketones

# MCT Oil - Benefit #2

## Key Benefits

Weight  
management



Increases satiety, potentially leading to **weight loss**.

# MCT Oil

How to take.



Generally taken in coffee. The recipe of coffee with grass fed butter and MCT oil is often referred to as “bulletproof coffee”. You can make your own or buy the brand.

# Leucine

What is it?

- One of the three branched-chain amino acids. (BCAAs)
- Plays a crucial role in **protein synthesis and muscle repair.**



# Leucine - Benefit #1

## Key Benefits

Enhances  
muscle protein  
synthesis



Particularly beneficial for anyone involved in resistance training.

# Leucine - Benefit #2

## Key Benefits

Enhances  
muscle  
preservation



Useful for older adults to maintain muscle mass and strength thus preventing sarcopenia.

# Multi-vitamins and Vitamin B Complex Supplements



If you eat a healthy diet consisting of whole foods, you may not require multi-vitamins. Getting your vitamin needs by whole foods is preferable, but seniors may benefit from supplementation.

# Multi-vitamins - Proceed with caution

- If members are following our food plan recommendations, they are getting the nutrients they need from whole foods.
- In addition, there is a risk of over supplementation due to overlapping.
- Too much Vitamin E, Vitamin A, or Iron can have adverse health effects.

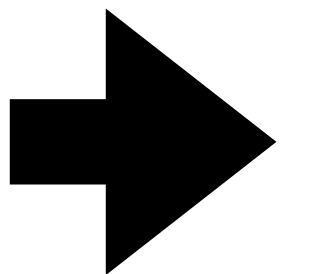


# A Shotgun Approach



- Possible duplication.
- Dosage may be inadequate.
- May interact with prescription medications.

B vitamins are water soluble and are more targeted



# Supplementing with a B Vitamin Complex

Metabolic Support



- May boost energy and support metabolic health.
- **B1, B2, B3, B5, and B6** are vital for converting food to energy.

# Supplementing with a B Vitamin Complex

Brain health



- B6, B9, and B12 are essential for brain health.
- They help produce neurotransmitters that regulate mood and cognitive function.

# Supplementing with a B Vitamin Complex

Heart health



- **B6, B9 and B12** regulate homocysteine levels - an amino acid linked to heart disease.

# Supplementing with a B Vitamin Complex

Heart health



Blood test

- Elevated homocysteine is an indicator for increased risk of heart attack, stroke, and hardening of the arteries.
- A simple blood test for homocysteine can tell if you are deficient in B vitamins.

# Supplementing with a B Vitamin Complex

Immune system



- B vitamins help in the production and activity of immune cells.
- This may be especially important for seniors who often experience a weakened immune system.

# Top 3 Vitamin B Complex Supplements



Thorne Research  
Stress B Complex



Pure  
Encapsulations  
B Complex Plus



Jarrow Formulas  
B-Right

# Glycine



- Increases sleep efficiency.
- Increases collagen synthesis.
- Supports glutathione production.

# Zinc



- Boosts immunity against the common cold.
- 40% of seniors are zinc deficient.
- 20 mg. daily showed in 34% increase in muscle synthesis in a recent study.

# Timing Your Supplements



- Avoid taking B and C vitamins at night - they raise cortisol and promote alertness.
- At night take Vitamin D along with your minerals stack.

# Supplements - Takeaway



If over 60, supplements are important to fill in nutritional gaps, but **your protocol must be INDIVIDUALIZED.**

# Supplements - Review

## Critical Supplements to Consider

- Omega 3s
- Psyllium Husk
- Whey protein
- Creatine
- Vitamin D3/K2
- Vitamin C
- Magnesium
- CoQ 10
- Collagen
- MCT Oil
- Leucine
- Vitamin B Complex
- Glycine
- Zinc



# My Personal Nighttime Stack



Magnesium



Glycine



Zinc

# Supplements - Pop Quiz

1. What vitamin has been shown to be effective in promoting bone density?

Vitamin A

Vitamin B6

Vitamin C

Vitamin D

# Vitamin D

# Strengthening Bones and Joints



Calcium and Vitamin D supplements promote bone density.

Omega 3s and glucosamine support joint health.

2. Psyllium husk does all of the following except:

Act as a prebiotic

Act as a probiotic.

Bulks stool.

Acts as a probiotic.

Benefit #1

## Fiber - Psyllium Husk

Digestive Health



Bulks stool and eases constipation.  
Supports regular bowel movement.

Acts as a **prebiotic**, fostering healthy gut bacteria.

3. Which has the most Leucine content?

Casein protein

Magnesium

Creatine

Whey protein

Whey protein

# Whey Protein

## Benefit #1

Muscle growth and repair



Rich in **Leucine**, an amino acid that is the primary trigger for protein synthesis.

Rapid absorption, best used post workout.

4. For best results, Creatine should be combined with:

Tart cherry juice.

Orange juice.

Resistance training.

Complex carbohydrates.

# Resistance training

# Creatine

## Benefit #2

Increased muscle mass

Can lead to gains in muscle mass by stimulating protein synthesis.

This is especially true when combined with **resistance training**.



5. K2 has been shown to produce:

Muscle growth.

Hair growth.

Increased protein synthesis.

Healthy teeth.

Healthy Teeth

# The Role of K2



Prevents calcium from depositing in the arteries, reducing the risk of atherosclerosis.

Helps maintain healthy teeth by supporting proper calcium utilization.





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Congratulations!

Next you'll learn about the most important  
component of longevity in . . .

Stronger Muscles, Stronger Heart: Fitness for Active Aging.

*A person who is healthy has a million dreams.*

*A person who is not has only one.*

Tony Robbins

*The End*