

# VITAMINS & MINERALS: HOW TO INCREASE ABSORPTION

**Presented by: Riley Healey, DTR, CPP Dietetic Intern**

# WHAT ARE VITAMINS AND MINERALS?



- Vitamins:
  - Organic compounds that are essential micronutrients needed to carry out body processes.
- Minerals:
  - Inorganic compounds found naturally on earth with crystalline structures.

# FAT SOLUBLE VITAMINS

Vitamin A



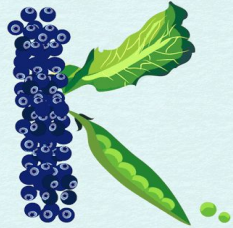
Vitamin E



Vitamin D



Vitamin K



- **Vitamins A, D, E, & K**
- Dissolved in fats and
- Better absorbed if eaten with a source of dietary fat.
- Excess fat-soluble vitamins are stored in the liver and fatty tissues for future use.

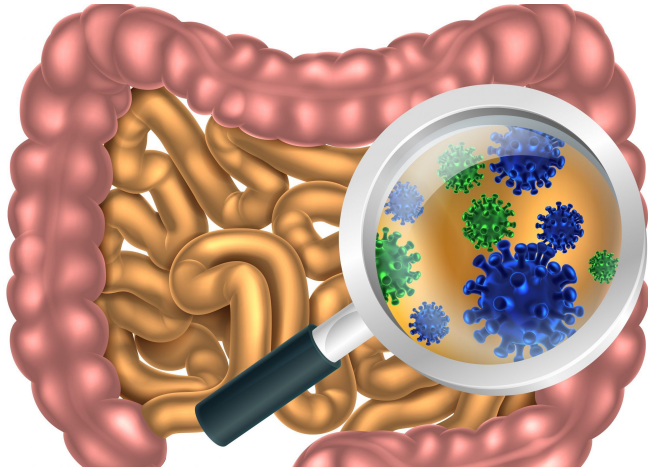
# WATER SOLUBLE VITAMINS

- Dissolved in water
- Absorbed quickly into tissues for immediate use.
- Not stored in the body
- Excess will be excreted in urine.

Water Soluble Vitamins	
Vitamin:	Name:
B1	Thiamine
B2	Riboflavin
B3	Niacin
B5	Pantothenic Acid
B6	Pyridoxine
B7	Biotin
B9	Folate
B12	Cobalamin
C	Ascorbic Acid



# HOW DOES NUTRIENT ABSORPTION WORK?



- Digestive bacteria and enzymes break down your food into molecules.
- These molecules travel into your small intestine and absorbed into the bloodstream.
- Making sure that you're absorbing nutrients properly is important for overall health.

# TIPS TO IMPROVE ABSORPTION

- Add a source of fat to your vegetables
- Avoid drinking alcohol often with food
  - Wait 3-4 hours
- Take time to chew your food thoroughly
- Include intake of probiotics
  - Yogurt, Kimchi, kombucha, apple cider vinegar, Miso



# LET'S TALK ABOUT FOOD SYNERGY...



- **Synergy:**
  - the interaction of two or more substances to produce a combined effect greater than the sum of their separate effects.
- How you combine foods can have a major impact on how well your body absorbs the vitamins and minerals.



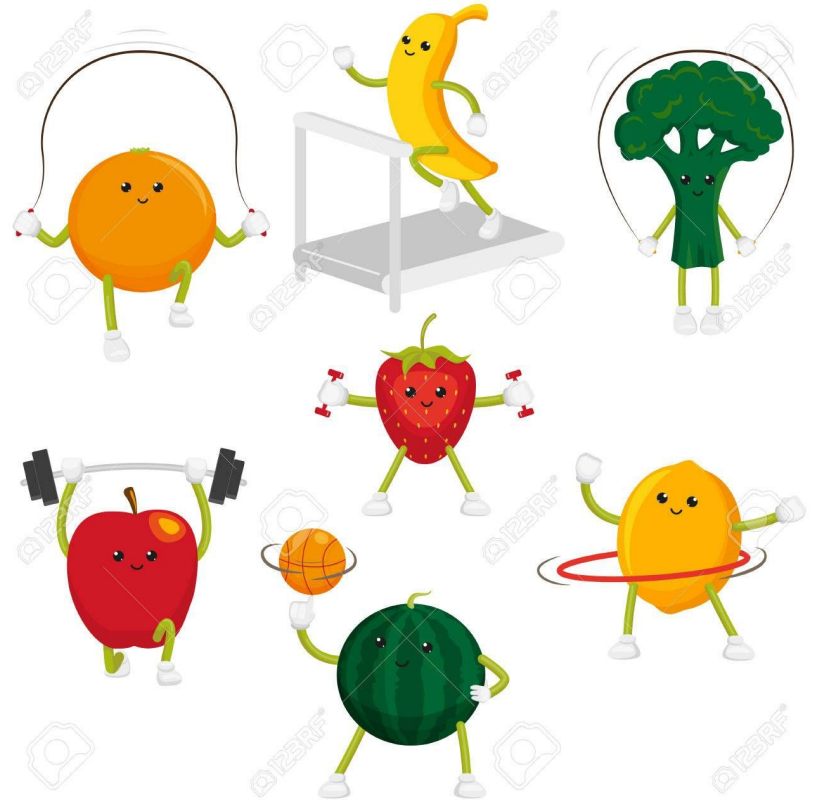
# PAIRINGS THAT MAXIMIZE ABSORPTION:



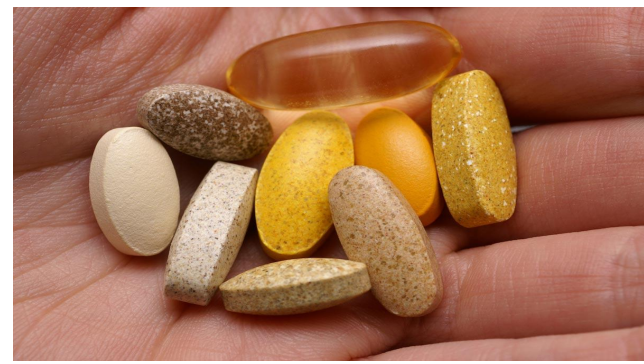
- **Vitamin C** increases absorption of **Iron**
- **Vitamin D** increases absorption of **Calcium**
- **Acid** increase absorption of **Vitamin B12**

# PAIRINGS THAT INTERFERE/MINIMIZE ABSORPTION:

- **Calcium** interferes with **Iron** absorption.
- **Vitamin E** interferes with **Vitamin K** absorption.
- **Iron + Zinc + Copper** all compete with each other for absorption.



# WHAT ABOUT TAKING MULTIVITAMINS?



- Generally used to provide nutrients that you may not be getting in your diet or to treat vitamin deficiencies.
- Eating more fruits and vegetables would be better investment in our health.
- We should strive to get our nutrients from foods not pills.
- Moral of the story, taking a multivitamin does not mean it will make you healthy if you eat poorly.

# IN CONCLUSION:

- Integrating whole, healthy foods into your diet on a regular basis is *key*.
- Even if you eat all the right things you might not feel any healthier if these nutrients aren't being properly absorbed by your body.
- This is why practicing food synergy is so important to make sure your body gets the most out of what you put into it!

QUESTIONS?

# RESOURCES:

<https://whatsgood.vitaminshoppe.com/nutrients-to-pair-together/>

<https://www.simplemost.com/6-food-combinations-help-body-absorb-nutrients/>

<https://www.hyperbiotics.com/blogs/recent-articles/76292739-improving-nutrient-absorption-what-you-need-to-know>