



To Supplement or
not to Supplement,
that is the Question

Bonnie Seitzinger

To Supplement or Not – Vitamins, Minerals and Herbals

AGENDA

- Definitions
- Terminology
- Healthy Nutrition
- Food as the Best Medicine of all
- Special Needs
- Sources of More Information
- Summary

Definitions - Nutrition Related Terms

- Nutrients build energy and sustain life
- Both macro and micro nutrients essential for life
- Macronutrients – protein, fat, carbohydrates & water
- Clean drinking water
- Micronutrients – vitamins and minerals
- Vitamins - organic substance, plants and animals
- Minerals – inorganic, plants and animal foods

Terminology – To Understand Nutrition Basics

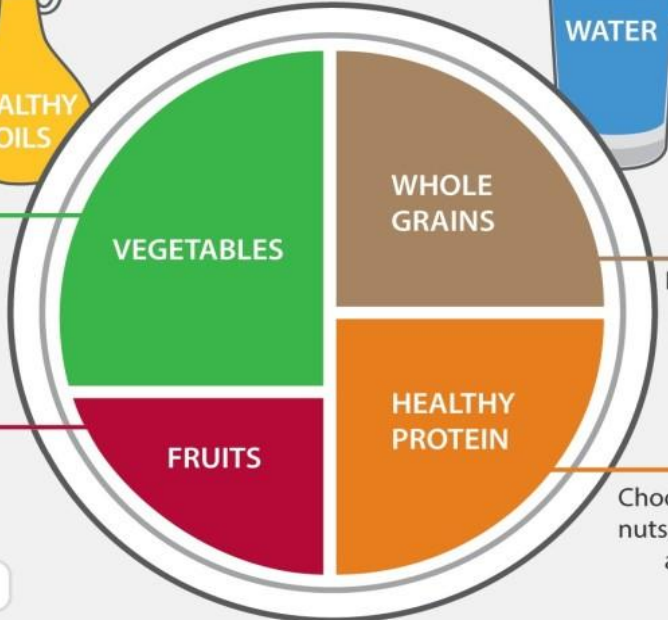
- DRI – Daily Recommended Intake
- RDA – Recommended Dietary Allowance
- AI – Adequate Intake
- UL – Upper Limit
- DV – Daily Value used by FDA on Nutrition Facts Labels
- Proven to be unsafe concept

Healthy Nutrition

- As noted our food intake is made up of Macro and Micronutrients
- The Macro requirements depend on gender and age
- The Food Pyramid (Harvard T.H. Chan School) provides the best health portions of macronutrients
- The Micronutrient RDA requirements are a good choice for specific amounts of daily vitamins and minerals
- On line applications can be used to determine your macro and micro nutrient intake on a daily basis

Healthy Eating Plate – Macronutrient Intake

HEALTHY EATING PLATE



HEALTHY OILS

Use healthy oils (like olive and canola oil) for cooking, on salad, and at the table. Limit butter. Avoid trans fat.

WATER

Drink water, tea, or coffee (with little or no sugar). Limit milk/dairy (1-2 servings/day) and juice (1 small glass/day). Avoid sugary drinks.

VEGETABLES

The more veggies – and the greater the variety – the better. Potatoes and French fries don't count.

WHOLE GRAINS

Eat a variety of whole grains (like whole-wheat bread, whole-grain pasta, and brown rice). Limit refined grains (like white rice and white bread).

FRUITS

Eat plenty of fruits of all colors.

HEALTHY PROTEIN

Choose fish, poultry, beans, and nuts; limit red meat and cheese; avoid bacon, cold cuts, and other processed meats.

STAY ACTIVE!

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Harvard Health Publications
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Food as Best Medicine Specifics - Vitamins

VITAMIN	WHAT IT DOES	WHERE IS IT FOUND	DAILY VALUE*
Biotin	<ul style="list-style-type: none"> • Energy storage • Protein, carbohydrate, and fat metabolism 	<ul style="list-style-type: none"> • Avocados, • Cauliflower • Eggs, • Fruits (e.g., raspberries) • Liver Pork • Salmon • Whole grains 	300 mcg
Folate/Folic Acid <i>Important for pregnant women and women capable of becoming pregnant</i>	<ul style="list-style-type: none"> • Prevention of birth defects • Protein metabolism • Red blood cell formation 	<ul style="list-style-type: none"> • Asparagus, • Avocado, • Beans and peas • Enriched grain products (e.g., bread, cereal, pasta, rice) • Green leafy vegetables (e.g., spinach) • Orange juice 	400 mcg
Niacin	<ul style="list-style-type: none"> • Cholesterol production • Conversion of food into energy • Digestion • Nervous system function 	<ul style="list-style-type: none"> • Beans, • Beef, • Enriched grain products (e.g., bread, cereal, pasta, rice) • Nuts, • Pork, • Poultry, • Seafood, • Whole grains 	20 mg
Pantothenic Acid	<ul style="list-style-type: none"> • Conversion of food into energy • Fat metabolism • Hormone production • Nervous system function • Red blood cell formation 	<ul style="list-style-type: none"> • Avocados, • Beans and peas, • Broccoli • Eggs, • Milk, • Mushrooms, • Poultry, • Seafood • Sweet potatoes, • Whole grains, • Yogurt 	10 mg
Riboflavin	<ul style="list-style-type: none"> • Conversion of food into energy • Growth and development • Red blood cell formation 	<ul style="list-style-type: none"> • Eggs, • Enriched grain products (e.g., bread, cereal, pasta, rice) • Meats, • Milk, • Mushrooms, • Poultry • Seafood (e.g., oysters), • Spinach 	1.7 mg
Thiamin	<ul style="list-style-type: none"> • Conversion of food into energy • Nervous system function 	<ul style="list-style-type: none"> • Beans and peas • Enriched grain products (e.g., bread, cereal, pasta, rice) • Nuts, • Pork, • Sunflower seeds, • Whole grains 	1.5 mg

Food as Best Medicine Specifics - Vitamins

Vitamin A	<ul style="list-style-type: none"> • Growth and development • Immune function • Reproduction • Red blood cell formation • Skin and bone formation, • Vision 	<ul style="list-style-type: none"> • Cantaloupe, • Carrots, • Dairy products • Eggs, • Fortified cereals • Green leafy vegetables (e.g., spinach and broccoli), • Pumpkin, • Red peppers, • Sweet potatoes 	5,000 IU
Vitamin B₆	<ul style="list-style-type: none"> • Immune function • Nervous system function • Protein, carbohydrate, & fat metabolism, Red blood cell form 	<ul style="list-style-type: none"> • Chickpeas, • Fruits (other than citrus) • Potatoes, • Salmon, • Tuna 	2 mg
Vitamin B₁₂	<ul style="list-style-type: none"> • Conversion of food into energy • Nervous system function • Red blood cell formation 	<ul style="list-style-type: none"> • Dairy products, • Eggs, • Fortified cereals • Meats, • Poultry, • Seafood (e.g., clams, trout, salmon, haddock, tuna) 	6 mcg
Vitamin C	<ul style="list-style-type: none"> • Antioxidant • Collagen and connective tissue formation • Immune function • Wound healing 	<ul style="list-style-type: none"> • Broccoli, • Brussels sprouts • Cantaloupe, • Citrus fruits and juices (e.g., oranges and grapefruit) • Kiwifruit, • Peppers, • Strawberries, • Tomatoes and tomato juice 	60 mg
Vitamin D <i>Nutrient of concern for most Americans</i>	<ul style="list-style-type: none"> • Blood pressure regulation • Bone growth, • Calcium balance • Hormone production • Immune function • Nervous system function 	<ul style="list-style-type: none"> • Eggs, • Fish (e.g., herring, mackerel, salmon, trout, and tuna), • Fish liver oil • Fortified cereals, • Fortified dairy products, • Fortified margarine • Fortified orange juice, • Fortified soy beverages (soymilk) 	400 IU
Vitamin E	<ul style="list-style-type: none"> • Antioxidant • Formation of blood vessels • Immune function 	<ul style="list-style-type: none"> • Fortified cereals and juices • Green vegetables (e.g., spinach and broccoli), • Nuts and seeds • Peanuts & peanut butter, Vegetable oils. 	30 IU
Vitamin K	<ul style="list-style-type: none"> • Blood clotting • Strong bones 	<ul style="list-style-type: none"> • Green vegetables (e.g., broccoli, kale, spinach, turnip greens, collards, Swiss chard, mustard greens) 	80 mcg

Food as Best Medicine Specifics - Minerals

MINERAL	WHAT IT DOES	WHERE IS IT FOUND	DAILY VALUE*
Calcium <i>Nutrient of concern for most Americans</i>	<ul style="list-style-type: none"> • Blood clotting • Bone and teeth formation • Constriction and relaxation of blood vessels • Hormone secretion, • Muscle contraction • Nervous system function, 	<ul style="list-style-type: none"> • Almond, rice, coconut, and hemp milks • Canned seafood with bones (e.g., salmon and sardines), • Dairy products • Fortified cereals and juices, • Fortified soy beverages (soymilk) • Green vegetables (e.g., spinach, kale, broccoli, turnip greens) • Tofu (made with calcium sulfate) 	1,000 mg
Chloride	<ul style="list-style-type: none"> • Acid-base balance • Conversion of food into energy • Digestion • Fluid balance • Nervous system function 	<ul style="list-style-type: none"> • Celery, • Lettuce. • Olives, • Rye, • Salt substitutes • Seaweeds (e.g., dulse and kelp), • Table salt and sea salt • Tomatoes, 	3,400 mg
Chromium	<ul style="list-style-type: none"> • Insulin function • Protein, carbohydrate, and fat metabolism 	<ul style="list-style-type: none"> • Broccoli, • Fruits (e.g., apple and banana) • Grape and orange juice, • Meats, • Spices (e.g., garlic and basil) • Turkey, • Whole grains 	120 mcg
Copper	<ul style="list-style-type: none"> • Antioxidant, • Bone formation, • Collagen and connective tissue formation, • Energy production, • Iron metabolism, • Nervous system function 	<ul style="list-style-type: none"> • Chocolate and cocoa. • Crustaceans and shellfish, • Lentils • Nuts and seeds, • Organ meats (e.g., liver), • Whole grains 	2 mg
Iodine	<ul style="list-style-type: none"> • Growth and development, • Metabolism, • Reproduction • Thyroid hormone production 	<ul style="list-style-type: none"> • Breads and cereals, • Dairy products, • Iodized salt. • Potatoes, • Seafood, • Seaweed, • Turkey 	150 mcg
Iron - <i>Nutrient of concern for young children, pregnant women, and women capable of becoming pregnant</i>	<ul style="list-style-type: none"> • Energy production, • Growth and development, • Immune function, • Red blood cell formation • Reproduction, • Wound healing, 	<ul style="list-style-type: none"> • Beans and peas, • Dark green vegetables, • Meats, • Poultry, • Prunes and prune juice, • Raisins • Seafood, • Whole grain, enriched, and fortified cereals and breads 	18 mg

Food as Best Nutrition Resource

- Following the macro and micro recommendations
- We would not be able to survive if we only supplemented
- Following the guidelines to eat healthy.
- Avoiding processed foods, added sugars and soda and other high fructose drinks
- Supplementation can be minimal and based on special needs.
- **Given the mineral depletion of our soil and our industrial food supply, a multi daily supplement can be useful to feel more secure in attaining the daily nutrient requirements.**

Special Needs

- The recommended Dietary Guidelines are for “average” healthy population.
- Chronic diseases affect the vitamin and minerals requirements and potentially the DV as well
- Lifestyle impact – Smokers
- Aging population needs
- The other pillars of health and wellness

Summary – Food for Health, Supplement Wisely

- Learn how to eat for your health
- Bring good nutrition principles to your family, friends and schools
- Be aware and knowledgeable if you have special needs
- The special needs require changes to a healthy diet and may require additional supplementation
- Over 50 and 60 years of age may change the DR
- Chronic disease and lifestyle as well

Nutrition and Supplement References

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