

Standard Six

Vitamins & Minerals

1. What is the main function of vitamins and minerals?

2. What foods are a lot of the vitamins and minerals we need found in?

3. Because different fruits and vegetables have different vitamins and minerals, how can we ensure that we get all the different vitamins and minerals that we need?

4. Which vegetables have the most vitamins and minerals?

5. What does water do for our body?
 - A. _____
 - B. _____
 - C. _____
6. How much water should we drink every day? _____
7. List 3 symptoms of dehydration: _____

Vocabulary

1. Deficiency: _____
2. Toxicity: _____
3. Water Soluble: _____
4. Fat Soluble: _____
5. Macro: _____
6. Micro or Trace: _____
7. Electrolyte: _____

Vitamins

Vitamin	Water/Fat Soluble	Function	Food Source	Deficiency	Toxicity
Vitamin A			Cantaloupe -Sweet Potatoes -Yellow fruits and vegetables	night blindness	
Vitamin D		Bones & teeth, helps absorb calcium	"Sun Vitamin" Milk -Milk Products		
Vitamin E		Energy Maintains cell membranes		Nerve deterioration Can cause anemia in premature babies	

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Vitamin E		Energy Maintains cell membranes		Nerve deterioration Can cause anemia in premature babies	
Vitamin K			Dark green leafy vegetables Liver	hemorrhaging (non-stop bleeding) Bruising	
Vitamin C		Collagen to hold cells together Protects body against infection		scurvy (rotten teeth and bleeding gums) Breakdown of collagen	
Vitamin B1 Thiamin		Nerve tissue, digestive system, appetite, energy	-Milk -Bran -Whole grains -Poultry -Fish -Dried Beans		
Vitamin B2 Riboflavin				-Premature aging -Cracks in the corner of mouth -Inflammation of tongue and mouth	
Vitamin B3 Niacin		COENZYME Nerve tissues, Used for energy metabolism	def=pellagra (rash on face), nervous symptoms, mental		
***Folate/ Folic Acid		Red blood cells Makes new cells	-Leafy green vegetables -Legumes -Seeds		
Vitamin B6 Pyridoxine			-Green leafy vegetables -Animal protein	-Anemia -Abnormal brain wave pattern -Irritability	
Vitamin B12 Cobalamin		Helps make new cells -Maintains nerves and cells			-Water retention

Minerals

Mineral	Macro (M)/Trace (T)/Electrolyte (E)	Function	Food Source	Deficiency	Toxicity
*Calcium		Helps bones, teeth,		-Osteoporosis	
Phosphorous	M	Cells, releases energy, works with calcium (bones & teeth)			
Magnesium			-Dark green leafy vegetables -Whole grain products		Diarrhea -Lack of Coordination -Confusion -Coma
*Iron		-Helps carry oxygen to the blood -Helps cells use oxygen		Anemia -Paleness -Weakness	
Zinc			-Meat -Liver -Fish -Dairy products	-Stunted growth -Rash -Hair Loss	
Fluorine		-Helps strengthen teeth and prevent cavities			Staining of teeth during development
Copper		part of red blood cells, breathing	-Whole grain products		
Iodine	T			goiter: swollen lip and tongue	
Sodium		Regulates fluids (OSMOSIS), muscles, heart, nerves			high blood pressure
Chloride	E		Salt		
Potassium		Regulates fluids, heart and other muscles, OSMOSIS	-Fruits, especially bananas and oranges -Meat, poultry and fish -Dry beans -Dairy products		

*Calcium and iron are the two most common mineral deficiencies in the United States.

