

Nutrition  MINERALS	<b>PHOENIX FIRE DEPARTMENT HEALTH &amp; FITNESS</b>  M. P. 1-A03.06 01/2012-R Page 1 of 2
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## TYPES

Macrominerals: Minerals required in large amounts by the body.

Microminerals: Minerals required in small amounts by the body.

## FUNCTION

Minerals serve two main functions. The first is as actual constituents of the body (i.e., calcium, magnesium, and phosphorus) which are extremely important to the development and structure of bones and teeth.

Minerals also play an important role in certain bodily systems. For example, the proper functioning of our nervous system and the production of energy both depend on minerals.

## RDA

The following table provides the basic functions and RDA for the most common minerals. Like vitamins nutritionist's suggest that all RDA's can be met easily with a well-balanced diet.

<u>MINERAL</u>	<u>TYPE</u>	<u>FUNCTION</u>	<u>RDA</u>
Calcium	Macro	Used to form bones and teeth. Assists in blood clotting. Important to muscle contraction	1000 mg
Phosphorus	Macro	Combines with calcium to give bones and teeth strength and hardness	700 mg
Magnesium	Macro	Activator of many enzymes involved with body function	<b>Males</b> 400-420 mg <b>Females</b> 310-320 mg
Potassium	Macro	Contributes to a normal PH. Facilitates enzyme reactions related to protein and carbohydrate metabolism	0.8 – 1.5g per 1000 calories
Sulfur	Macro	Role in the clotting of blood. Development of bone. Muscle metabolism. Possible growth factor	N/A
Sodium	Macro	Maintenance of body fluid volume. Tissue formation. Nerve transmission. Muscle contraction	1000 mg
Iron	Micro	Important to oxygen-carrying capacity of the blood	<b>Males</b> 8 mg <b>Females</b> 18 mg
Iodine	Micro	Helps regulate the rate the body uses energy	150 ug

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<u>MINERAL</u>	<u>TYPE</u>	<u>FUNCTION</u>	<u>RDA</u>
Zinc	Micro	Constituent of essential enzymes and insulin	<b>Males</b> 11mg <b>Females</b> 8 mg
Copper	Micro	Constituent of enzymes	900 mg
Cobalt	Micro	Contributes to formation of red blood cells. Constituent of B <sub>12</sub>	3-5 ug
Manganese	Micro	Constituent in normal bone structure. Activator of enzymes concerned with fat, carbohydrate, and protein metabolism	<b>Males</b> 2.3 mg <b>Females</b> 1.8 mg