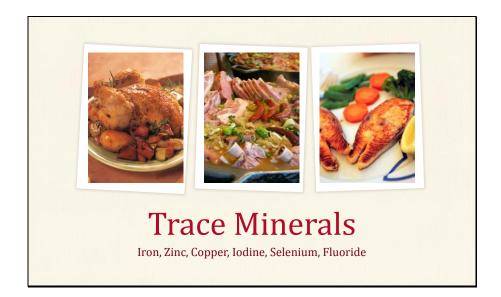
Slide 1



### Slide 2

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### Slide 3



Trace minerals include iron, zinc, copper, iodine, selenium and fluoride.

### Slide 4

# Functions • Makes hemoglobin that carries oxygen to all body cells • Helps your cells use oxygen • Dark green, leafy vegetables • Dry beans and peas • Enriched and whole-grain products • Dried fruits

### **Deficiencies and Excesses**

Effects of getting too little

- iron-deficiency Anemia having too few red blood cells
- often tired
- weak
- short of breath
- pale
- · may feel cold

# Effects of getting too much

- nausea
- heat problems

### Slide 5

# Zinc

### **Functions**

- Helps enzymes do their work
- Aids the immune system
- · Helps wounds heal
- · Helps children grow

### **Food Sources**

- Meat, liver, poultry, fish, shellfish
- · Dairy products
- Dry beans and peas, peanuts
- · Whole-grain breads and cereals
- Eggs
- Miso (fermented soybean paste)

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# **Deficiencies and Excesses**

# Effects of getting too little

- poor development
- rash
- · decreased taste
- hair loss
- decreased immunity

### Effects of getting too much

- diarrhea
- decreased copper usage
- depressed immunity
- cramps

### Slide 6

# Copper Functions • Helps enzymes do their work • Helps form hemoglobin and collagen • Variety meats • Dry beans and peas • Nuts and seeds

# **Deficiencies and Excesses**

Effects of getting too little

- blood problems
- poor growth

# Effects of getting too much

• nervous system disorders

### Slide 7

# Functions Food Sources • Stored in the thyroid gland • Produces substances needed for growth and development • Iodized salt Copyright ⊕ Texas Education Agency, 2012. All rights reserved.

# **Deficiencies and Excesses**

Effects of getting too little

- goiter on thyroid gland
- mental retardation

# Effects of getting too much

• poor thyroid function

### Slide 8

# Functions • Works as an antioxidant • Maintains muscles, red blood cells, hair and nails • May protect against certain cancers • Whole-grain breads and cereals • Vegetables (amount varies with content in soil) • Meat; variety meats • Fish; shellfish

# **Deficiencies and Excesses**

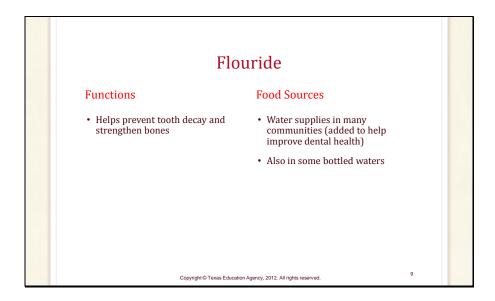
Effects of getting too little

• vulnerable to other physical problems

# Effects of getting too much

- nausea
- hair loss
- rash

### Slide 9



# **Deficiencies and Excesses**

Effects of getting too little

tooth cavities

Effects of getting too much

• in children: mottled teeth and bones



### Slide 10

# References and Resources

### **Images**

- Microsoft Office Clip Art: Used with permission from Microsoft.

### Textbook

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