

## MODULE 3 GROW FOODS



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stunted growth





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- stunted growth
- poor wound healing





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- stunted growth
- poor wound healing
- brittle hair and nails
- poor muscle development
- weak immunity





#### MICRONUTRIENT DEFICIENCIES

Other micronutrient deficiencies associated with a lack of Grow foods are...

- iron deficiency anemia
- zinc deficiency
- iodine deficiency disorder
- vitamins A, B, E and K deficiency



## IRON DEFICIENCY ANEMIA





 Iron is found in the blood which helps transport oxygen.



- Iron is found in the blood which helps transport oxygen.
- Low iron results in low hemoglobin concentration in the blood.



- Iron is found in the blood which helps transport oxygen.
- Low iron results in low hemoglobin concentration in the blood.
- Hemoglobin is the component in blood that carries oxygen throughout the body for energy metabolism.





fatigue



- fatigue
- weakness



- fatigue
- weakness
- pale skin





- fatigue
- weakness
- pale skin
- poor cognitive performance





- fatigue
- weakness
- pale skin
- poor cognitive performance
- impaired work performance

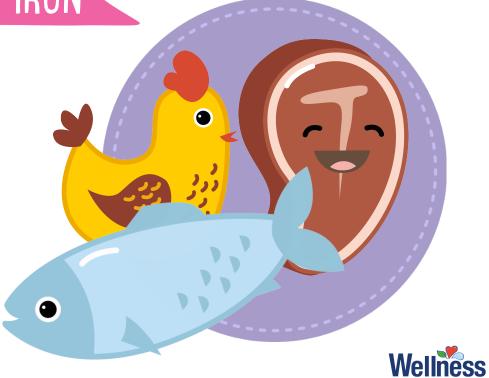


- fatigue
- weakness
- pale skin
- poor cognitive performance
- impaired work performance
- weak resistance to infectious diseases



SIGNIFICANT SOURCES OF IRON

- red meats
- liver
- poultry
- fish
- shellfish
- legumes



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# ZINC DEFICIENCY





normal taste





- normal taste
- wound healing

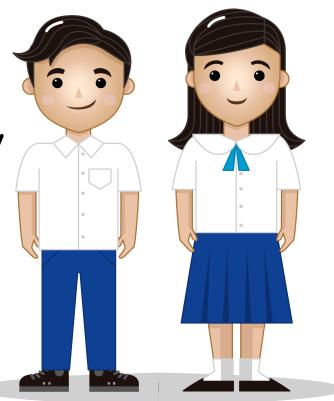




- normal taste
- wound healing
- strengthens immunity

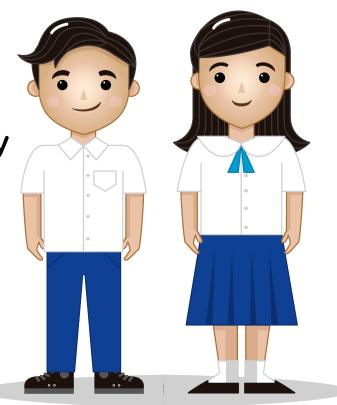


- normal taste
- wound healing
- strengthens immunity
- secondary sexual maturation





- normal taste
- wound healing
- strengthens immunity
- secondary sexual maturation
- sperm production







stunted growth



- stunted growth
- delayed maturation of sexual organs



- stunted growth
- delayed maturation of sexual organs
- weak resistance to infectious diseases



- stunted growth
- delayed maturation of sexual organs
- weak resistance to infectious diseases
- hair loss



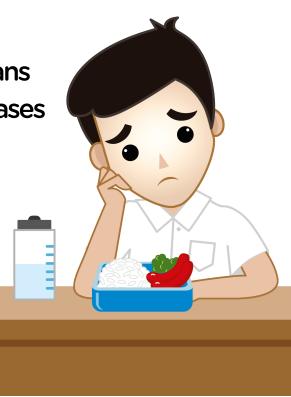


- stunted growth
- delayed maturation of sexual organs
- weak resistance to infectious diseases
- hair loss
- eye and skin lesions





- stunted growth
- delayed maturation of sexual organs
- weak resistance to infectious diseases
- hair loss
- eye and skin lesions
- poor appetite



Chronic zinc deficiency and may lead to poor motor development and cognitive performance.





SIGNIFICANT SOURCES OF ZINC

seafood (oyster and crab)

beef

 milk and dairy products (yogurt, cheese)

whole grains





# IODINE DEFICIENCY DISORDER



# FUNCTIONS OF IODINE



# FUNCTIONS OF IODINE

 component of thyroid hormones which help regulate growth, development and metabolism





### SIGNS & SYMPTOMS OF IODINE DEFICIENCY -

 enlargement of the thyroid gland (goiter)



#### SIGNS & SYMPTOMS OF IODINE DEFICIENCY

- enlargement of the thyroid gland (goiter)
- mental and physical retardation among infants and children



SIGNIFICANT SOURCES OF IODINE

- iodized salt
- seafood
- dairy products



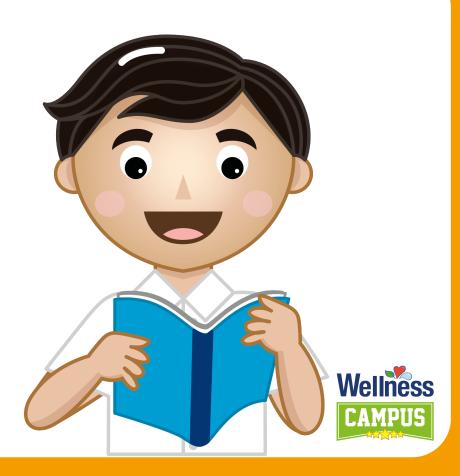
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### VITAMIN A DEFICIENCY





maintains clear vision



- maintains clear vision
- keeps skin smooth



- maintains clear vision
- keeps skin smooth
- helps in development of bones and teeth



- maintains clear vision
- keeps skin smooth
- helps in development of bones and teeth
- strengthens immunity





 night blindness (slow recovery of vision after flashes of bright light at night or inability to see in dim light)



- night blindness (slow recovery of vision after flashes of bright light at night or inability to see in dim light)
- weak resistance to infectious diseases





SIGNIFICANT SOURCES OF VITAMIN A

- fortified milk
- cheese
- eggs
- liver



### VITAMIN B DEFICIENCY



# FUNCTIONS OF VITAMIN B (B1, B2, B3, B6 & B6)



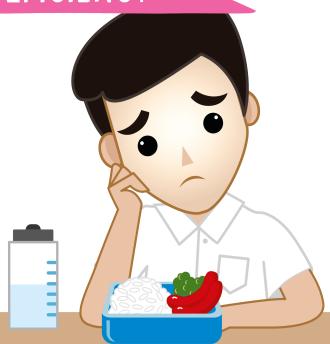
#### FUNCTIONS OF VITAMIN B (B1, B2, B3, B6 & B6)

 helps in energy metabolism





swollen tongue



- swollen tongue
- irritated or inflamed corners of the mouth



- swollen tongue
- irritated or inflamed corners of the mouth
- poor appetite



- swollen tongue
- irritated or inflamed corners of the mouth
- poor appetite
- fatigue

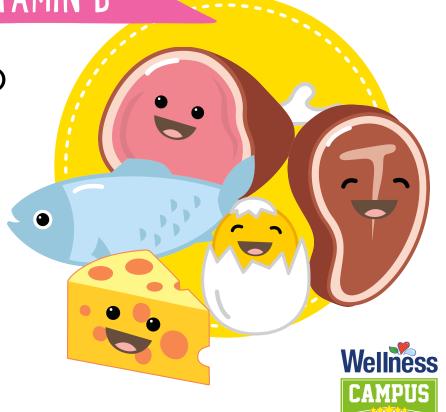


- swollen tongue
- irritated or inflamed corners of the mouth
- poor appetite
- fatigue
- weakness



#### SIGNIFICANT SOURCES OF VITAMIN B

- milk products (yogurt, cheese)
- liver
- eggs
- meat
- poultry
- fish



### VITAMIN E DEFICIENCY



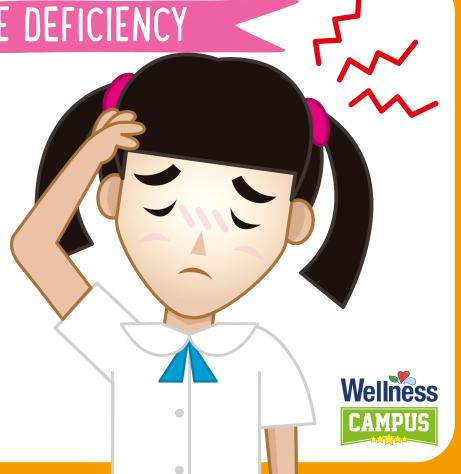


 antioxidant (a substance that prevents or delays some types of cell damage)





Vitamin E deficiency is uncommon but deficiency can cause a type of anemia.



### SIGNIFICANT SOURCES OF VITAMIN E

- liver
- egg yolks



# VITAMIN K DEFICIENCY





aids in blood clotting







hemorrhage (exessive bleeding)





SIGNIFICANT SOURCES OF VITAMIN K

- liver
- milk

