

The background features several large, overlapping, semi-transparent swirls in shades of light green, light blue, and light purple. Scattered throughout are numerous small, yellow, triangular shapes that resemble sun rays or confetti.

FACTS ON LIFE STYLE DISEASES AND NUTRITION

DEFICIENCY DISEASES



INTRODUCTION

- We suffer from these diseases as a result of the way we live.
- Many are caused by Malnutrition.
- Malnutrition describes a partial or absolute deficiency of one or more of the essential nutrients, vitamins or minerals.
- In some cases it may be a deficiency in calorie intake.

The slide features a decorative border on the left side consisting of three balloons: a green one at the top, a light blue one in the middle, and a purple one at the bottom. Each balloon is attached to a streamer and has several small yellow triangular shapes around it, resembling confetti or streamer ends.

VITAMIN & MINERAL DEFICIENCY DISEASES



XEROPTHALMIA

- This is caused by a deficiency of Vitamin A.
- Deficiency of vitamin A. This causes the lacrimal glands (tear glands) to malfunction and to produce little or no tears.
- Vitamin deficiency Xerophthalmia begins with night blindness and dryness of the conjunctiva.
- This is followed by corneal xerosis (dryness of the cornea), and, in the late stages, to keratomalacia (softening of the cornea).

- This man is suffering from Xerophthalmia.



PREVENT VIT. A DEFICIENCY

- Red and orange fruits and vegetables owe their colour to the presence of a group of pigments called **carotenoids**.
- Foods rich in vitamin A include the following. Milk, eggs &

Mangoes

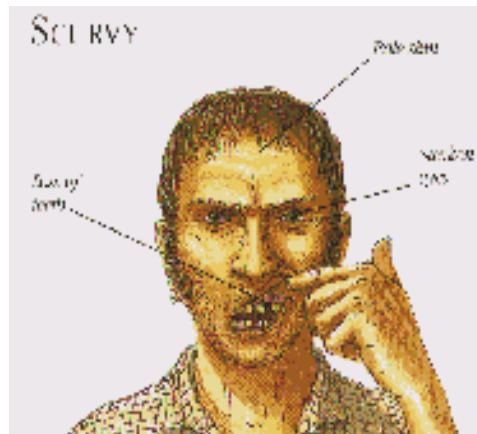


Guavas



SCURVY

- Scurvy is caused by a lack of Vitamin C.
- Collagen is needed for the synthesis of the protein collagen.
- Symptoms of scurvy include liver spots on the skin, especially on the legs, spongy gums, and bleeding from all mucous membranes.
- Scurvy can be fatal if untreated.



SOURCES OF VITAMIN C

- Foods rich in Vitamin C include , Oranges and other citrus fruits, Mangoes, guavas, & West Indian Cherries.



RICKETS

- The bones fails to ossify.
- This is manifested by the distortion (bending) of the leg bones.
- This is a disease found in children.
- The child on the right is suffering from rickets.
- It is caused by a deficiency in Vitamin D, sunlight or Calcium.





VITAMIN D. DEF CONT'D

- Other bone diseases that result from vitamin D deficiency are:
 - Osteomalacia - a bone-thinning disorder that occurs exclusively in adults and is characterised by muscle weakness and bone fragility.
 - Osteoporosis- a condition characterized by reduced mineral deposition resulting in increased bone fragility.

HOW TO PREVENT VIT. D. DEFICIENCY DISEASES.

- Very few foods are naturally rich in vitamin D, and most vitamin D intake is in the form of fortified products including milk, soy milk and cereal grains.



- Cereal with milk



Salmon



VITAMIN D CONT'D

- Natural sources of vitamin D include:
- Fish liver oils, such as cod liver oil, 1 Tbs(15 ml) provides 1,360 IU
- Fish, such as:
 - Catfish 3 oz provides 425 IU
 - Salmon, cooked, 3.5 oz provides 360 IU
 - Mackerel, cooked, 3.5 oz, 345 IU
 - Sardines, canned in oil, drained, 1.75 oz, 250 IU
 - Tuna, canned in oil, 3 oz, 200 IU
 - Eel, cooked, 3.5 oz, 200 IU
- One whole Egg, 20 IU
- Shiitake Mushrooms, one of a few natural sources of vegan vitamin D.

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OTHER DEFICIENCY DISEASES

ANAEMIA

- There are many causes of anemia, including:
- Deficiency of iron, Vitamin B₁₂ (pernicious anaemia) or Folic acid in the diet.
- The individual has less than the normal number of red blood cells or hemoglobin in the blood.
- This compromises the oxygen-transporting capability of the blood.
- Thus, individuals may tire easily, appear pale, develop palpitations, and experience shortness of breath.

HOW TO PREVENT ANAEMIA

- Eating foods rich in iron is essential to prevention of iron deficiency anemia.
- The twenty richest sources of iron in descending order: Canned clams; Fortified dry cereals; Cooked oysters; Organ meats (liver, giblets); Fortified instant cooked cereals; Soybeans, mature, cooked; Pumpkin and squash seed kernels, roasted; White beans; Blackstrap molasses, 1 Tbsp; Lentils, cooked; Spinach, cooked from fresh; Beef (chuck); Kidney beans; Sardines; Beef (rib); Chickpeas; Duck, meat only; Lamb shoulder; Prune juice.
- Certain foods have been found to interfere with iron absorption in the gastrointestinal tract, and these foods should be avoided in persons with established iron deficiency. They include tea, coffee, wheat bran, rhubarb, chocolate, red wine, and dairy products.



KWASHIORKOR

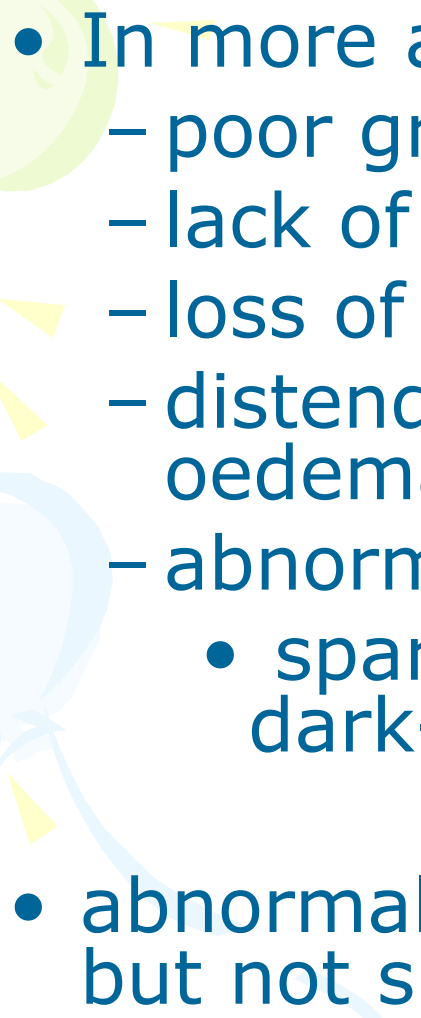
- This is also called protein malnutrition or protein-calorie malnutrition (PCM)
- It is caused by a lack of protein in the diet. Young children are more at risk.
- Symptoms include apathy (indifference), lethargy (drowsiness) and irritability

These children exhibit symptoms of kwashiorkor.

Marasmus

The symptoms of Marasmas are similar to those of Kwashiorkor. There is a loss of muscle mass. However,



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- In more advance cases of the disease
 - poor growth
 - lack of stamina
 - loss of muscle
 - distended stomachs as a result of oedema
 - abnormal hair
 - sparse, thin, streaky red or grey in dark-skinned children
 - abnormal skin (darkening in irritated but not sun-exposed areas).

HOW TO PREVENT KWAHIORKOR AND MARASMAS

- Kwashiorkor can be prevented by including essential amino acids and proteins in the diet.
- While Marasmas can be prevented by including proteins, carbohydrates and lipids in the diet.



THE END