

TerranearPMC Safety Share

Robert Brounstein

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I remember a story about a government employee that was assigned to wiretap the phone of several mob bosses in New York. He was left in solitude with a bed, bathroom, small kitchen and a desk, where his surveillance equipment was operating 24 hours every day. He was required to report back to his field office once a week. After many months of working in his confined work quarters, his field office lost communications. They tried contacting him but to no avail. After a few days, two agents were directed to go to see why they did not get their typical weekly update. When the agents arrived at the surveillance location, they found the agent dead. Looking around the only food that could be found were cases of Cutty Sark scotch whiskey and boxes of Hostess Twinkies. The autopsy revealed that the agent died of malnutrition.

And more recently, CNN presented a case that was published in the Annals of Internal Medicine about an English youth that lost his sight after living on a diet of French fries, Pringles and white bread. The teenager told doctors he had only eaten fries from a particular fish and chip shop, Pringles potato chips, white bread, slices of processed ham and sausage since elementary school, and he avoided foods with certain textures.

He first visited a doctor at age 14, complaining of tiredness. He wasn't taking any medication, had a normal body mass index (BMI) and height, and showed no visible signs of malnutrition. When doctors discovered low vitamin B12 levels and anemia, the youth was treated with vitamin B12 injections and offered dietary advice. One year later the teenager showed signs of hearing loss and vision symptoms. His vision had worsened to the point of blindness by 17 years of age. His deficiency of vitamin B12 still persisted while low copper, selenium and vitamin D levels persisted while having a significantly reduced bone level density. Researchers from Bristol Medical School and the Bristol Eye Hospital examined the case and concluded that the patient suffered nutritional optic neuropathy, a dysfunction of the optic nerve that was the result of poor diet, leading to malnutrition.

This case highlights the impact of diet on visual and physical health, and the fact that caloric intake and BMI are not reliable indicators of nutritional status. The researchers say that poor diet and reduced intake of minerals caused vision loss in this case and warn that nutritional optic neuropathy could become more common due to the consumption of junk food.

Malnutrition is a condition that is defined as a dietary deficiency. People may eat too much of the wrong type of food or do not consume enough food. Poor diet may cause a deficiency in vitamins, minerals, and other essential substances. Too little protein can lead to kwashiorkor, a condition that is characterized as having bleeding in the lungs (edema) and an enlarged liver. People with this condition have an extremely emaciated appearance in all body parts except their ankles, feet, and belly, which swell with fluid.

When we do not get enough vitamins, we are subject to a host of health problems, For instance, a lack of vitamin, C can result in scurvy; a disease that is typified by being so tired that you can barely walk. Gums become swollen and so sore it hurts when eating while teeth fall out. Legs are swollen and purple from bruising. Scurvy was prevalent in the 1400's through to 1700's, among sailors when Europe discovered far off lands and began trade and exploration. These long journeys caused sailors to have a limited supply of fruit. The English realized that by keeping a supply of limes on board that this disease could be controlled. As a result of stocking limes on English vessels, English



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sailors were given the name “limeys,” and to this day, this rather tongue-and-cheek expression remains.

According to the World Health Organization (WHO), 462 million people worldwide are malnourished, while 159 million children are subjected to stunted development due to poor diet.

Signs and symptoms of undernutrition include:

- lack of appetite or interest in food or drink
- tiredness and irritability
- inability to concentrate
- always feeling cold
- loss of fat, muscle mass, and body tissue
- higher risk of getting sick and taking longer to heal
- longer healing time for wounds
- higher risk of complications after surgery
- depression
- reduced sex drive and problems with fertility

In more severe cases:

- breathing becomes difficult
- skin may become thin, dry, inelastic, pale, and cold
- the cheeks appear hollow and the eyes sunken, as fat disappears from the face
- hair becomes dry and sparse, falling out easily

Eventually, there may be respiratory failure and heart failure, leading to unresponsiveness. Total starvation can be fatal within 8 to 12 weeks (such was the case of the wire-tapping agent mentioned earlier!).

In advanced nations, such as the United States, one would think that malnutrition would not be a problem. But, unfortunately, too many of us have poor diets, as opposed to people in in poor regions of the world where food is not available.

Here in the US food is readily available, yet, through poor life-style choices, many of the foods we eat do not contain the proper nutrients, as well as vitamins necessary to sustain a healthy diet. Fast foods, for instance, contain an abundance of carbohydrates, sugars, fat and sodium. While these substances can create their own health problems, the food from which these materials come (i.e. fast foods), lack so many of the necessary nutrients and vitamins which lead to malnutrition.

Understand, pizza and beer, hamburgers, hot dogs, fries, milkshakes, etc., are delicious and can really make any occasion fun (like at a baseball game). But, in this age where health care has become a major concern, it would seem to make sense that each of us take on a little responsibility for our own health and understand the nutritional value of the food we consume.

Your choice of diet can influence your long-term health prospects more than any other action you might take – C. Everette Koop (Former US Surgeon General)

