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The effect of vitamin C deficiency on human health

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Abstract

This study aims to the significance of vitamin C for human health, and to teach people about the worth of vitamin C, and if a shortage will drive serious complexity for the individual, leading to his disease, an electronic questionnaire was handed out through WhatsApp public networking implementation, where it was deal to about 900 people in the city of Mecca, and 800 replies were gained.

Keywords: Vitamin C, deficiency, effect

1. Introduction

It is a vitamin detected in a number of various foods and is also moved as a regimen complement^[4]. Vitamin C, also called ascorbic acid, is utilized to block and cure scurvy^[4]. It also looks like one of the remarkable kinds of vitamins for human health and some sorts of animals because it aids regrow tissue and produces neurotransmitter enzymes^[4, 5]. Vitamin C is also obliged to role several enzymes for immune system tasks^[5, 6]. It also doses as an antioxidant^[7]. There is currently no proof that vitamin C bans the popular cool^[7, 8]. On the other side, there are some studies that show that steady doses of vitamin C can decrease the period of the current chilly^[9]. It is not obvious whether complementation with this vitamin impacts the influence of cancer, dementia, or cardiovascular illness^[10, 11]. Vitamin C can be taken orally or by injection^[4]. Vitamin C is taken in a mild potion⁽⁴⁾. immoderate doses may reason stomach troubles, headaches, upset sleep, or blushing of the skin^[4, 8]. Taking the recommended dosage is also deemed secure for a gravid woman^[12]. The US National Academy of Medicine advised against taking large drops of vitamin C^[5]. Vitamin C was found in 1912 and deposed in 1928. It was the first vitamin to be chemically made in 1933^[13]. It is on the WHO Model List of Essential Medicines and is saw the most efficient medicine required by a health system^[14].

Vitamin C is a blank or a bit xanthous powder or crystals, which resort to gradually black with day, but it is somewhat constant in harsh media, while it oxidizes quickly in solutions, where it melts easily in water, and it is dissolvable in alcohol, but it rejects to thaw in chloroform ether and benzene. Vitamin C is a decrease factor and therefore is a demand to save metal in a lower state such as iron (II) and copper (II) and thus it enhances the assimilation of iron by keeping it in the remission state needful for iron ingestion. The acid is also sour to append a hydroxyl series to prolyl and lysyl (proline and lysine) by prolyl and lysyl hydroxylase enzymes, respectively, during the collagen synthesis process. It is also required for the catabolism of the amino acid tyrosine during the synthesis of the hormone adrenaline. The acidulent is substantial in the industry of gall acidulous because it is ordered in the addition of hydroxyl to the 7-alpha carbon atom.

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The shell of the suprarenal gland contains large amounts of tart for use in the métier of steroid hormones such as cortisone and aldosterone. Ascorbic acid can act as an antioxidant by reducing membrane oxidized tocopherols and blocking the formulation of nitrosamines pending assimilation. Vitamin C deficiency drives scurvy and is related to the deficient formation of collagen [6]. Symptoms of scurvy: puffiness of the gums, soft teeth and possibly falling out, bleeding under the lashing, belated wound healing, simple anemia, weak immunity, lowness of breath, loftiness distress, and in the later stages, jaundice, general swelling, shortage urination, and there may be nervous diseases, fever, convulsions, and in the end it can command to death. Blistering was a popular provision among sailors in the winter, and it was cured by feeding vegetables and fruits or vitamin C curative, whether in the form of tablets or injections. This can go on the stock amount of vitamin C in the body for a period of 3-4 months before symptoms of scurvy unhide. suffering is a symptom of the vitamin C deficiency disease scurvy, submitting primarily within the musculoskeletal system as arthralgia in the knees, ankles, and wrists, as well as myalgia (10, 14). Scurvy-linked pain shows to be primarily due to bleeding into the musculoskeletal tissues, which can be so weak that patients are incapable to walk (10). Bleeding into the muscles and other flexible tissues results in swelling and softness in the influence area, whilst bleeding into the rump, knee, and ankle combined results in hemarthroses ,and bleeding into the periosteum results in sharp bone pain.

2. Material and Methods

This study began in (the city of Mecca in Saudi Arabia), launched writing the examination, in September 2022, and the project finished data gathering in October 2022. The reconnoitering applied the adjective analytical method that employs a quantitative or qualitative characterization of the friendly phenomenon, and (The impact of vitamin C reduction on human health). This type of study is described by analysis, cause, topicality, and fact, as it is heedful in people and socials, as its treatise the delayed and their effect on the health of the individual, culture, and exponders, the extending of disease and they are linked to demographic changeable such as age, sex, nationalism, and marriageable situation. condition, jobs [1], and use of the Office Group 2010 histogram for Excel to stand the outcomes by pulling them on the statistical software [2].

3. Results and Discussion

The questionnaire is a useful major tool to gather data. However, investigators cannot stand personal meetings with entrants' answers to the online questions, because of the public prevention regulations at that time way studies to prevent contagion between participants and examiners and vice versa. It is also it was enough to answer the questions electronically only as the questions contain twelve questions, which are closed. The online path has also been, used to produce good samples, in like studies in Saudi Arabia and others [3].

Table 1: The effect of vitamin B deficiency on human health

Questions	Yes	No
whether you did a vitamin C blood test recently	9.1%	90.9%
do you feel very tired all the time?	54.5%	45.5%
whether you eat fruits and vegetables regularly	18.2%	81.8%
do you exercise Do you smoke daily	54.5%	45.5%
do you take large amounts of vitamin C? If your answer is, yes	18.2%	81.8%
do you have dark spots on your skin	50%	50%
do you suffer from anemia	18.2%	81.8%
do you have malnutrition in general	45.5%	54.5%
were you sick and doing dialysis	100%	0%

With regard to the first question, it was about whether you did a vitamin C blood test recently. 9.1% answered yes, while 90.9% said no. As for the second question, do you feel very tired all the time? 54.5% answered yes, while 45.5% said no. The third question was about whether you eat fruits and vegetables regularly. 18.2% answered yes and 81.8% answered no. The fourth question is Do you have the following symptoms? 20% answered they have muscle fatigue and 20% do not have any pathological symptoms, 30% have weight gain, 10% joint pain, fatigue and general weakness, slow wound healing, while 0% do not have scurvy or immunodeficiency, fifth question was about to do you exercise Do you smoke daily? 54.5% answered yes, while 45.5% answered no. Regarding the sixth question, it was about to do you take large amounts of vitamin C? If your answer is, yes? answer the next question? 18.2% answered yes, while 81.8% said no. With regard to the seventh question, did you have the following symptoms after consuming excessive amounts of vitamin C? All the participants who responded to the questionnaire said that they did not take an overdose of vitamin C. The eighth

question was about whether you had the following psychological symptoms (the psychological effect as a result of vitamin C deficiency on the participants in the questionnaire? 60% did not have symptoms, while 20% showed symptoms of fatigue and 20% fear and anxiety, the ninth question was about to do you have dark spots on your skin. The answer was 50%, yes and 50% no (equal), the tenth question was about to do you suffer from anemia (lack of red blood cells).18.2% yes and 81.8% no, For the eleventh question, was about to do you have malnutrition in general. 45.5% answered yes, and 54.5% answered no. As for the last question, were you sick and doing dialysis? 100% answered no.

4. Conclusion

Vitamin C is a powerful functional food ingredient with numerous health applications. Proper intake over a lifetime helps to maintain our current health and prevent future ailments. It is well known that a deficiency of vitamin C causes loss of weight; anemia; weakness of muscles, including the heart; grave cytological alterations in bone

marrow (bones may become very thin and fragile); loosening of the teeth; Aneurysm and aneurysm; and inability to reproduce. The effects of severe deficiency are so diverse that practically every organ in the body has been found to be seriously affected.

5. Acknowledgment

Praise be to God, prayer and peace be upon our prophet Muhammad and his family companions, to begin with, we would like to offer big thanks to my brothers who are with me in the research to help me to finish this research, may God to keep them safe to their family and I wish them a lot of good in this world and the hereafter amen

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