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# Comparison between Schools' Children Oral Symptoms of Malnutrition in Europe and Asia

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## Abstract

Malnutrition occurs when the body has not been supplied with sufficient nutrients, often due to inappropriate dietary selections, struggle to obtain food, and low earnings. This condition may occur when there is excessive absorption of particular nutrients, which causes imbalanced and compromised utilization; thus, resulting in underweight and obesity.

***Keywords:*** *Schools' Children Oral Symptoms of Malnutrition; Oral Symptoms of Malnutrition in Europe and Asia*

## Introduction

Malnutrition is initiated by health conditions such as Crohn's illness, ulcerative colitis, celiac ailment, constant diarrhea, and persistent vomiting. Malnutrition affects the oral health of children. Certainly, it interferes with a self-regulating process where biotic systems strive to sustain stability while adjusting to fluctuating exterior conditions, leading to disease progression of the oral cavity. Generally, oral malnutrition symptoms such as the nature of teeth, defected oral cavity, burning sensation, and sore throats are similar in Europe and Asia; however, they differ.

In both Europe and Asia, the oral symptoms of malnutrition are similar in many ways. The nutritional status of the body influences the pre-eruptive stage of the teeth, characterized by the elongation of the root and its movement and toward the occlusal plane. Concurrently, when there are deficiencies of the vital vitamins D, C, B, A, and Protein Energy Malnutrition the children tend to experience disorders in the oral structures ([1], p230). Essentially, progenies with malnutrition condition most of the time display enamel hypoplasia defect where their dental build-up has a thin enamel and sometimes it is absent. This deficiency frequently occurs on the surface part of a tooth, creating hollows on the enamel correlating to a lack of vitamin A. Similarly, some children in both continents experience exaggeratedly thin layers of dental enamel in the entire tooth. The enamel hypoplasia is characterized by depressions, fractures, white spots, and yellowish-brown pigments in the regions with an exposed underlying dentin layer. Subsequently, these progenies experience heat and cold sensitivity caused by the nerves found in the pulp when the tooth roots are exposed due to fading or defected gums. Also, when children's diet lacks certain nutrients, tissues encounter difficulties in their mouth to counterattack infection-causing germs. This situation often contributes to gum disease, and the dentinal tubules or pathways are occupied with fluid; thus, triggering a painful sensation in response to a stimulus such as cold air or liquid.

Additionally, in both Europe and Asia, oral symptoms of malnutrition include the hypo functioning of the salivary glands due to protein-energy malnutrition. The salivary gland usual function is necessary to maintain a healthy oral cavity. However, when a child has malnutrition, they tend to decrease saliva flow rate, a reduced protecting capacity is depicted, and lessened salivary constituents, mainly proteins ([2], p4823). Concurrently, these progenies experiencing protein-energy malnutrition and vitamin A insufficiency linked with salivary gland degeneration have reduced the defense capability of the oral cavity against infection and its ability to buffer the plaque acids. A recent report states that the absence of protein and deficiencies of certain micronutrients in children's diet, such as vitamins, zinc, and iron, affects the volume and the composition of saliva; hence, controlling the protective attributes it has in the oral cavity ([3], p225). Also,

the development of caries is an oral symptom of malnutrition in Europe and Asia as they are the acid and bacteria individual's mouth take over causing tooth due to the absence of the nutrients that provide protection. This condition of teeth results in hypo mineralization brought about by conditions favoring cariogenic development, increasing the proneness to demineralization, eliminating mineral ions from enamel and dentin responsible for supporting the tooth structure. Subsequently, periodontal disease is another symptom of malnutrition in both continents, where the pathology in a victim starts in the gum and invading the periodontal ligament. This situation causes touchiness, redness, and inflammation of the gingiva, which lead to tooth loss and other serious conditions.

Furthermore, another similarity of oral symptoms of malnutrition in Europe and Asia is the burning sensation in the mouth, particularly on the tongue, caused by deficiency of vitamin B complex. The other oral symptoms include chapped or cracked lips, a condition known as cheilitis that makes the lips dry and inflamed on both sides of the individual's mouth ([4], p342). Subsequently, iron deficiency in children's diet is responsible for numerous biological processes, including oxygen transportation, skin health, wound healing [5] and inflammation regulation causes angular cheilitis. Zinc is a deficiency that can be revealed by cracked and swollen lips in both Europe and Asia. Also, oral ulcers can indicate malnutrition where single or more painful sores appear on gums, inner lips, tongue, mouth tops, and throat, which usually interferes with eating. Similarly, these canker sores in progenies are initiated or prompted by the deficiency of folic acid, zinc, and iron. The absence of calcium required by the body as the essential component responsible for the repair process and wound healing often catalyzed and worsened the symptoms ([6], p1900764). Certainly, the body requires red blood cells, which aid in creating collagen that form the foundation for fresh tissue. However, the deficiency of iron and folic acid deprives the sores of the new granulation tissue as the body cannot fill in the wound. Also, riboflavin deficiency causes a disorder called riboflavin, which manifests as fissured lips, swollen tongue, and oral dryness cavity.

Moreover, sore throats are another oral symptom of malnutrition in both Europe and Asia. Dysphagia is a common condition in children suffering, making the victim encounter difficulties swallowing food ([7], p38). This situation is caused and associated with iron deficiency, a condition known as anemia. Children who do not take or rarely consume meat and dairy products often experience riboflavin deficiency, which often manifests through sore throats [8-10]. Also, vegetarian mothers tend to give birth to children with iron deficiency, causing the kid to experience sore throats at a tender age [11].

The symptoms of malnutrition in Europe and Asia tend to differ in many ways considering the countries in both continents vary greatly. Tooth decay due to malnutrition is often rampant in Europe compared to Asia as the high sugar consumption in Europe worsens it ([12], p168). Similarly, this intake is correlated with the idea that the sun scarcely rises in the winter, an issue that depresses the children, and they end up eating candy filled with sugar that catalyzes the existing teeth decay condition. Also, the sore throat symptom manifestation is severe in Europe than in Asia due to the difference in weather. Therefore, Europe is warmer; hence, viruses in the sore throat tend to shift randomly, worsening the existing disorder. Subsequently, the symptoms in Asia are worse than in Europe due to the medical infrastructure in place in both continents. Finally, many people in Asian countries do not have access to health facilities since they are poor and unable to cater for their hospital bills, whereas in Europe, there are many free clinics where people access the institutes without particular charges. Certainly, this situation affects the condition of the symptoms as in Europe; children often receive medical attention before the disorder worsens. However, in Asia, many households use traditional medicine to cure the infection, which is not effective, and the children are affected more. Concurrently, chapped lips syndrome can be addressed by adequate water intake; nonetheless, this condition is worse in Asian countries due to the scarcity of water supply. In Europe, there is sufficient clean water for all children, which means they often reduce the cracking of lips by drinking plenty of water, which provides the mouth with the moisture it needs to soothe the lips ([4], p342). Undoubtedly, children living in Europe often have access to dairy products and meat, which contribute a considerable amount of riboflavin to the diet compared to those in Asian countries with limited intakes of these foods. The variation in the access of dairy products differentiates the symptoms as they tend to be rampant in the Asian nation than in Europe [13].

## Conclusion

Conclusively, malnutrition occurs due to deficiencies or extremes in nutrient consumption and imbalance of vital nutrients [14]. Similarly, this condition can be initiated by health disorders, including Crohn's illness and ulcerative colitis. The oral symptoms in Europe and Asia tend to be the same in different ways, such as the hypo functioning of the salivary glands due to Protein-energy malnutrition. Certainly, children in both continents experiencing malnutrition manifest it through cheilitis condition, which makes the lips dry, and inflamed on both sides of the mouth. However, these signs of malnutrition differ in Europe and Asia due to the economic state of the continents. For instance, sufficient clean water in Europe makes the chapped lips less painful as the children drink plenty, providing moisture it needs to soothe the lips [15-18].

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