



Fueling Your Smile: The Importance of Nutrition for Dental Wellness

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This work was carried out in collaboration among all authors. All authors read and approved the final manuscript.

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ABSTRACT

In order to maintain good oral health, it is important to eat a balanced diet. Preserving ideal oral health. The purpose of this study is to investigate the role that diet plays in maintaining good oral health and avoiding oral illnesses. The association between diet and several facets of dental health was examined in a thorough review of the literature. The results highlighted how diet affects the immune system, saliva production, tooth growth and strength, gum health, and tissue repair. For optimal tooth mineralization and strength, nutrients including calcium, phosphorus, and vitamin D have been discovered to be crucial.

Additionally, conditions affecting the mouth, such as angular cheilitis and glossitis, have been linked to nutritional deficits in vitamins B complex, iron, and B12. Promoting dental health requires eating a diet that is well-balanced and full of fresh produce, healthy grains, lean proteins, and dairy products in order to avoid tooth decay. It's also important to restrict the consumption of sugary

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meals and drinks. The advantages of maintaining good oral hygiene practices and having regular dental examinations are further increased by a healthy diet. This study emphasizes the role of nutrition in maintaining oral health and the need for comprehensive programmers that combine dietary treatments with initiatives to promote good oral health. This abstract gives a quick summary of the key ideas discussed in the study article, including the influence of food on several facets of oral health and the significance of a well-balanced diet. It highlights the value of appropriate diet in improving oral health and avoiding oral illnesses and summarizes the major results from the literature review.

Keywords: Nutrition; oral health; oral hygiene; education; US; saliva.

1. INTRODUCTION

A crucial component of general health is dental health, which includes the condition of the teeth, gums, and other oral tissues. It is commonly known that keeping excellent dental health is crucial for normal speech, digestion, and eating as well as general well-being. While routine brushing and flossing are important methods of maintaining dental health, The importance of diet for dental health is frequently underemphasized. Through all stages of life, nutrition is essential for promoting and maintaining excellent dental health. For tooth growth, strength, and mineralization, adequate nutritional intake is required. A few minerals, like calcium, phosphorus, and vitamin D, are especially important for supporting strong teeth and avoiding dental issues. A deficiency in these nutrients can impair tooth structure and raise the risk of tooth decay and other dental issues. In addition, diet is crucial for maintaining healthy gums and preventing periodontal disease. Nutritional deficiencies, including a deficiency in vitamin C, can affect the health of gum tissue and make people more susceptible to gum infections and inflammation [1-3]. Essential vitamins and antioxidants that promote healthy gums and the body's natural defense systems against oral disorders may be found in a well-balanced diet full of fruits and vegetables. Beyond the condition of the teeth and gums, diet affects oral health. Dietary aspects have an impact on saliva, which is crucial to oral health [4,5]. A healthy diet encourages salivation, which is important for tooth remineralization, mouth washing, and acid neutralization. Additionally, a lower risk of oral health issues including periodontal disease, dental caries, and oral infections is linked to maintaining a healthy weight and overall health through balanced eating [6-9]. Despite the clear connection between diet and dental health, initiatives to promote oral health frequently undervalue the

impact of nutrition. The goal of this study is to investigate and emphasis the crucial part that diet plays in preserving excellent dental health. We seek to add to the body of knowledge by looking into the effects of certain nutrients, dietary practices, and their effects on oral health. We also want to highlight the importance of nutrition in improving dental health and general wellbeing [10,11]. We will evaluate pertinent research and supporting data about the connection between diet and dental health through a thorough literature study. The results of this study will help people make wise dietary decisions to support their dental health by giving them important new insights into the role that nutrition plays in the development of oral health. They will also influence public health activities.

Achieving good oral health involves much more than just diligent brushing and routine dental exams. It dives deeply into the area of nutrition, where each bite of food we take in has a significant impact on how our teeth turn out. While the majority of us are aware of the need to reduce our sugar intake and maintain good oral hygiene, the importance of a balanced diet full of vital nutrients is sometimes overlooked. Like every other organ in the body, our teeth depend on a precise ratio of vitamins, minerals, and other nutrients to stay healthy and strong. Each nutrient contributes in a different way to the general health of our mouths, from the calcium that strengthens our enamel to the antioxidants that fight gum disease. This article will explore the world of nutrition and show how it profoundly affects our dental health, emphasizing the crucial link between all nutrients and the upkeep of a brilliant smile [12-15].

Phosphorus works in cooperation with calcium to preserve tooth structure, while calcium is necessary for the development of robust tooth enamel. These minerals can be found in abundance in dairy products, leafy greens, and nuts. Strong teeth and bones require calcium

absorption, which vitamin D is essential for. Vitamin D intake is influenced by diet, solar exposure, and fortified foods such as fatty fish. Calcium absorption is necessary for healthy teeth and bones, and vitamin D is crucial for this process. Diet, sun exposure, and fortified foods like fatty fish affect vitamin D intake. Healthy teeth and bones depend on the absorption of calcium, and vitamin D is essential for this process. Vitamin D intake is influenced by diet, sunlight exposure, and fortified foods such as fatty fish. Antioxidants, which may be found in foods like berries and green tea, lower gum inflammation and shield oral tissues from harm. The production of saliva, which washes the mouth and counteracts bacterial acids, depends on being hydrated. Sugary and acidic meals and drinks should be consumed in moderation to avoid tooth decay. Sugar-eating bacteria in the mouth release acids that eat away at tooth enamel. You can make sure you're getting all the nutrients you need for good oral health with a balanced diet that features a range of meals from all the food categories.

2. LITERATURE REVIEW

To analyze the body of knowledge about the relationship between oral health and nutrition, this review of the literature will concentrate on the effects of dietary practices, particular nutrients, and nutritional deficiencies.

2.1 Dental Health and Eating Patterns

Eating habits and nutritional preferences have a direct impact on dental health. You're eating habits, frequency of meals, and overall diet all have a big influence on how healthy your teeth and gums are. The following are some crucial details about eating habits and oral health. Throughout the day, frequent nibbling, particularly on sweet or acidic foods and drinks, might raise the risk of tooth decay. The bacteria in your mouth release acids after each meal that can damage tooth enamel. Keeping your snacking between meals to a minimum might help keep your teeth healthy.

Acidic and sugary foods and beverages, such as fruit juices, soda, and sweets, can cause tooth decay. Your mouth's bacteria consume sweets and generate acids that destroy tooth enamel. It's best to consume these things in moderation.

Diet that is well-balanced and composed of a variety of meals from various food categories is the best way to ensure that your teeth and gums

are healthy. For sustaining oral health, calcium, vitamin D, vitamin C, and phosphorus is essential. Your diet should include dairy products, fruits, vegetables, lean proteins, and grains. Saliva production is stimulated by chewing fibrous meals, such as fruits and vegetables. Saliva lowers the risk of tooth decay by cleansing the mouth and balancing acidity. Water consumption is crucial for maintaining excellent dental health. Water aids in rinsing out acids from meals and helps avoid dry mouth, which can lead to dental issues. Your oral health can be improved by eating regular meals and avoiding late-night snacks. Since less saliva is produced while you sleep, midnight munching may be damaging to your teeth. Whatever you're eating habits, it's important to practice good dental hygiene. Plaque may be removed, and dental problems can be avoided by brushing your teeth at least twice a day, flossing every day, and using mouthwash. It is crucial to have regular dental checkups with a dentist or dental hygienist. They may offer advice on preserving oral health and can spot dental issues early. Make sure you are still getting all the nutrients required for oral health if you are on a specific diet, such as a vegetarian or vegan one. Pay attention to calcium and vitamin B12 sources, as these nutrients are frequently present in animal products. Oral practitioners may give nutritional advice as well as information and direction on how you're eating habits may be influencing your oral health.

In conclusion, your oral health is significantly impacted by your dietary habits. Healthy teeth and gums can be promoted by eating a balanced diet, limiting the intake of sugary and acidic foods, and practicing good dental hygiene. Consider speaking with a dentist or certified dietitian for personalized advice if you have dietary issues relating to oral health. Several research studies have looked into how nutrition affects dental health results. An increased incidence of dental caries, tooth decay, and gum disease has been linked to high sugar intake, frequent eating, and poor food quality. On the other hand, eating a diet high in fruits, vegetables, whole grains, and lean meats has been associated with superior dental health results.

2.2 Nutrition and Dental Health

A healthy diet is essential for sustaining oral health. Your teeth and gums are immediately impacted by what you eat and drink. The

following are some critical elements of the connection between diet and oral health:

For the construction and maintenance of healthy dental enamel and bone structure, calcium and phosphorus are crucial. Exceptional sources of calcium include dairy items like milk, cheese, and yoghurt, whereas sources of phosphorus include meat, fish, and eggs. For calcium to be absorbed, vitamin D is essential. It makes sure that the calcium you take in is efficiently used to build your bones and teeth. Egg yolks, fatty fish (such as salmon and mackerel), and fortified meals are sources of vitamin D. Gum health and gum disease prevention depend heavily on vitamin C. It supports the ligaments that keep teeth in place. Vitamin C is abundant in strawberries, bell peppers, and citrus fruits.

Saliva production and maintaining oral mucous membranes depend on vitamin A, which also helps to keep the mouth clean and avoid dry mouth. Vitamin A is included in leafy greens, sweet potatoes, and carrots. Green tea, berries, and nuts are just a few examples of foods high in antioxidants that can help lower gum inflammation and shield oral tissues from free radical damage. Water consumption is necessary for the formation of saliva, which is important for dental health. Saliva assists in washing away meal residue, balancing bacterial acid production, and preventing dry mouth. Fruits and vegetables, which are high in fiber, encourage salivation and help to naturally clean teeth. Eating crunchy foods can also aid in plaque removal. Foods and drinks that are high in sugar and acid can cause tooth decay. Sugar-eating bacteria in the mouth release acids that eat away at tooth enamel. It's crucial to keep your intake of sugary and acidic foods under control. You can make sure you're getting all the nutrients you need for good oral health with a balanced diet that features a range of meals from all the food categories. Important components include a variety of fruits and vegetables, nutritious grains, and lean meats. It's okay to sometimes indulge in sweets and salty snacks, but moderation is crucial. Practice excellent dental hygiene after indulging, such as brushing and flossing, and be cautious of how much you consume. For the early identification and prevention of dental problems, routine dental examinations are crucial. Your dentist can offer tailored dietary and oral health recommendations.

In conclusion, sustaining excellent dental health requires a balanced diet rich in important nutrients, good oral hygiene habits, and routine dental exams. In order to promote strong teeth, healthy gums, and general oral wellness, nutrition is important. Nutrients are essential for preserving oral health. For the growth and mineralization of teeth, calcium and phosphorus are necessary, and vitamin D improves their uptake and utilization. For healthy gums and the prevention of periodontal disease, vitamin C is essential. These vitamin deficiencies can affect oral health and increase sensitivity to oral illnesses.

2.3 Oral Health and Nutritional Deficiency

Nutritional deficits have a substantial impact on oral health. The growth, upkeep, and healing of oral tissues, such as teeth, gums, and oral mucous membranes, depend on a variety of nutrients. A deficiency of these vital nutrients in the body might result in a number of oral health issues. Following are some typical dietary deficits and how they affect oral health:

2.4 Calcium and Vitamin D Deficiency

Impact: Too little calcium and vitamin D can erode tooth enamel, raising the risk of gum disease and tooth decay. Additionally, it might cause the jawbone to weaken and delay the eruption of teeth in youngsters.

Dairy goods, leafy greens, and nuts are good sources of calcium. Sunlight exposure, fatty fish, and fortified meals are ways to get vitamin D.

2.5 Vitamin C Deficiency (Scurvy)

Scurvy, which is characterized by bleeding gums, gum disease, and loose teeth, can result from severe vitamin C deficiency. For strong connective tissues and healthy gums, vitamin C is crucial.

Vitamin C is abundant in citrus fruits, strawberries, kiwis, bell peppers, and strawberries.

2.6 Vitamin A Deficiency

Saliva production and the maintenance of oral mucous membranes both require vitamin A. Dry mouth, and an elevated risk of oral infections can result from a deficit.

Carrots, sweet potatoes, spinach, and liver all contain vitamin A.

2.7 Iron Deficiency (Anemia)

Oral tissues that are pale, inflammatory, and painful might result from iron deficiency anemia. Additionally, it may cause tongue irritation and burning feelings.

Lean meats, chicken, fish, beans, and fortified cereals are some examples of foods high in iron.

2.8 Vitamin B Deficiencies (B2, B3, B6, B12)

Different B vitamin deficiencies can lead to oral health issues such as mouth ulcers, inflammation of the tongue, and a burning feeling in the mouth. Glossitis, or an inflamed tongue, can result from a vitamin B12 deficiency. Meat, fish, dairy products, whole grains, and other foods all include vitamin B.

2.9 Fluoride Deficiency

Although it is often not received only from diet, fluoride is crucial for protecting tooth enamel and preventing dental decay. It may be required to take fluoride supplements or apply topical treatments in locations where the water supply is deficient in the mineral.

Fluoridated water, toothpaste, and some dental treatments all include fluoride.

The prevention of nutritional deficiencies and the promotion of excellent dental health both depend on having a well-balanced diet that includes a range of foods from all food categories. Regular dental examinations can aid in identifying and treating oral health problems linked to dietary deficits. Consult a healthcare professional or qualified dietitian if you believe you may be nutritionally deficient for the best advice and care. Oral health can be negatively impacted by nutritional deficiencies and malnutrition.

Glossitis, angular cheilitis, and slow wound healing are oral symptoms that can be brought on by inadequate vitamin and mineral intake. Nutritional deficiencies reduce immunity, impede tissue repair, and raise the risk of oral infections and gum disease.

3. EFFECT OF SALIVA ON DIETARY STATUS

Saliva plays several important roles in maintaining oral and overall health, and it can have indirect effects on dietary status. Here are some ways in which saliva can impact dietary status:

Amylase is one of the enzymes found in saliva that aids in the digestion of food's carbohydrates. Starches are transformed into simpler sugars during this first phase of digestion in the mouth, making them easier for the body to absorb throughout the digestive system. For your body to properly absorb the nutrients from the food you eat, proper digestion is necessary.

Molecules that trigger taste receptors on the tongue are transported and broken down by saliva. The capacity to taste and appreciate food may be lessened if there is insufficient saliva. This may result in eating habits changing, which may impact the variety and caliber of food ingested.

Because saliva lubricates the mouth, it is simpler to chew, swallow, and talk. People who have xerostomia, or dry mouth, may find it difficult to chew certain meals, especially those that are dry or crunchy. This could affect the foods they choose to eat.

Saliva assists in cleaning the mouth, removing food particles, and neutralizing acids created by bacteria, all of which are essential for maintaining dental health. For appropriate chewing and digesting, dental health is crucial.

Saliva assists in the digestion of nutritional components, making it easier for the digestive tract to absorb them. In order to maintain a healthy diet and overall diet status, proper digestion and nutrient absorption are essential. A healthy amount of saliva is produced, which serves to hydrate the body generally and keep the mouth moist. It can have an impact on nutritional status and is crucial for general health to stay hydrated. Clear speech and communication depend on proper salivation. Dietary decisions may be influenced by speaking and communication difficulties because people who have trouble speaking may avoid particular meals.

Gum disease and tooth decay are two disorders that might affect salivation and its quality. These ailments may impair a person's capacity to chew and appreciate particular foods, thus necessitating dietary restrictions.

In conclusion, saliva, while not directly affecting nutritional status, is an essential component of the whole eating, digesting, and oral health processes. The activities of saliva may indirectly affect food preferences, selections, and ease of gastronomic experience. In order to improve overall nutritional status and wellbeing, it is crucial to maintain excellent dental health, which includes enough saliva production.

Consult with a dentist or healthcare practitioner for an assessment and proper therapy if you have ongoing dry mouth or other oral health concerns. Saliva is essential for maintaining dental health because it buffers acids, cleans the mouth, and demineralizes teeth. Saliva output and composition can be influenced by nutritional status. Lack of specific nutrients, such as vitamin A or B complex, can cause dry mouth, reduced salivation, and a higher risk of dental caries.

4. SYSTEMIC AND ORAL HEALTH

Oral health and systemic (general) health have a strong link, and research has revealed that the two are intertwined. Not only is a healthy mouth necessary for good nutrition and communication, but it also helps prevent and treat a number of systemic health issues. The relationship between systemic and oral health is best shown by the following main points:

Studies have revealed a connection between cardiovascular conditions including heart disease and stroke and gum disease (periodontitis). Gum infection and inflammation may lead to other body-wide inflammation, which might raise the risk of heart-related problems. People who have diabetes are more likely to get gum disease. Diabetes that is not well controlled might exacerbate dental health issues. In consequence, gum disease can make it harder to regulate blood sugar levels. Particularly in those with illnesses like chronic obstructive pulmonary disease (COPD), oral health can have an influence on respiratory health. Inflammation and oral infections can cause respiratory infections and exacerbate respiratory problems that are already present. Preterm delivery and low birth weight are only two of the negative pregnancy

outcomes that have been linked to poor dental health. Pregnant women must practice good dental hygiene since hormonal changes during pregnancy might raise their risk of developing gum disease. Dietary preferences and the capacity to chew and digest food adequately are influenced by oral health. Dietary constraints caused by missing teeth or oral discomfort may have an impact on one's overall nutrition and health. The systemic inflammation that is linked to a number of chronic disorders, including arthritis and several autoimmune diseases, can be exacerbated by persistent gum inflammation. A person's mental health may be negatively impacted by oral health problems, such as tooth loss or mouth discomfort, which can result in stress, worry, and a worse quality of life. Oral health and certain malignancies, like oral cancer, are closely associated. Early identification and treatment can be aided by routine dental checkups. A healthy mouth is essential for a strong immune system. Mouth infections and inflammation can make the immune system less effective in protecting the body from external dangers.

Dry mouth (xerostomia), a side effect of several drugs such as antihistamines and some antidepressants, might result in issues with your dental health. Additionally, a side effect of several medical procedures, such as radiation therapy, might be dry mouth.

In conclusion, there is a connection between oral and overall health. Maintaining good oral hygiene, scheduling routine dental exams, and leading a healthy lifestyle can improve overall wellbeing. Conversely, systemic health issues can have an influence on oral health, highlighting the significance of an integrated healthcare strategy that takes both oral and systemic health variables into account. People can manage and resolve these connections more effectively by speaking with medical professionals and dentists.

Oral health issues and systemic health issues have a well-established link. Poor dental health outcomes and a higher risk of periodontal disease are linked to chronic diseases including diabetes, cardiovascular disease, and obesity. These systemic conditions' nutritional treatment can have a good influence. The significance of dietary sugars in the etiology of dental caries has been demonstrated by a plethora of data from several types of research, including human studies, animal tests, and experimental

investigations in vivo and in Vitro. Data from all of this research together paints a complete picture of the cariogenic potential of carbs. Without a question, the most significant dietary component in the emergence of dental caries is sugar. Numerous other cross-sectional studies in other nations or regions, including China, Denmark, Saudi Arabia, Sweden, Thailand, and the United Kingdom, have demonstrated a connection between sugar intake and caries levels in primary and/or permanent teeth. A thorough investigation of more than 400 youngsters in England, aged 11 to 12, discovered a slight but significant correlation between total sugar intake and an increase in caries over the course of two years. In children beginning between the ages of 10-15 years, American state-sponsored Michigan Study looked studied the association ingestion of sugar and the progression of tooth decay over a r a three-year period. The quantity of dietary sugars ingested and the likelihood of developing dental caries were shown to have a tenuous link. Dental Caries Process demonstrates that a large portion of the American population is still affected by dental caries. As a result, it is important to comprehend the caries development in order to grasp what is happening within the mouth. Consuming fermentable sugars including sucrose, glucose, fructose, lactose, maltose, and starch and allowing these sugars to remain on the tooth are the two main causes of dental decay. [16]. The bacteria that live on the teeth ferment these food sources, and the byproducts of their metabolism are acidic, demineralizing the enamel. The essential pH range of 5.5-5.7 for the enamel can be caused by the fermentation process as well as acidic foods and beverages be attained. Products like candy, soft drinks, fruit juices, or coffee with added sugar, claims Joel and Linstrom, might cause the pH of the enamel to fall to the necessary level for the demineralization process to start. Eating healthily is crucial if you want to stop the caries process. This diet offers the ideal quantity of vitamins and minerals for a good mineralization of enamel. Among the essential vitamins and minerals that aid in protection are vitamin D, calcium, phosphate, vitamin B6, and vitamin K [16]. Foods rich in these vitamins and minerals include dark, leafy greens, cheese, milk, cod liver oil, eggs, oyster mushrooms, and a few types of wild salmon. for a child's teeth to mineralize as best they can. These foods must be a part of the diets of young children and expecting moms. last but not least Numerous studies show that those who consume minimal amounts of carbohydrates are less likely to develop tooth decay and gingival

bleeding. As one of the studies they analyzed, Joel and Linstrom [16] describe a study where participants had a diet similar to that of the stone age, which was primarily made up of protein and low-sugar sources. The results were unexpected since, despite increases in plaque, there was no gingival bleeding. This shows that while keeping good dental hygiene is important, it shouldn't be the key factor in how you take care of your teeth. Other factors that could affect dental health are Diabetes Mellitus. The person having diabetes should maintain adequate oral hygiene if they wish to prevent dental problems. There is an increased risk of developing cavities, gum disease, gum bleeding, and difficulties tasting food when blood sugar levels are poorly managed since less saliva is generated in this situation.

Early tooth emergence may occur in children with diabetes. These symptoms must be recognized in order to manage the patient's blood glucose levels or identify undiagnosed diabetes mellitus. Periodontal disease can be brought on by poor blood glucose management. About 22% of diagnoses are for periodontal disease, the most common dental ailment. Due to reduced saliva production, gingivitis is brought on by an increase in bacteria and germs along the gum line. The tooth becomes unstable because the inflammation weakens the connection. Periodontal disease can raise blood glucose levels, which lowers the prognosis. Because of the gum line infection, an infection can spread fast into the bloodstream, especially after eating or brushing your teeth (Vinas & Hess-Fischl, 2018). As the body starts using resources to halt the sickness from spreading, blood sugar levels will increase. Therefore, it is challenging to manage periodontal health with this diagnosis demands the development of a dental action plan.

Research shows that treating gum disease decreases blood sugar and inhibits the progression of the disease in diabetics [17]. In Vinas and Hess-Fischl's study, the dental technique known as scaling and root planning was in type 2 diabetics, planning—a more comprehensive technique for eliminating plaque from below the gum line. In this study, scaling and planning or ultrasonic treatment were randomly assigned to 90 people with type 2 diabetes mellitus with an average A1C of 7.7. After six months, the A1C was 0.06% lower in individuals whose plaque removal was limited to ultrasonography. Root planning and scaling

recipients had a substantial average decline of 0.51%. Even while a 1% drop in the A1C may not seem like much, it can reduce the risk of death from diabetes by reducing the risk of heart attacks by 14% and by 21% (Vinas & Hess-Fischl, 2018). The need to visit the dentist at least every six months, and maybe every three months if periodontitis is severe, is highlighted by these variables (Vinas & Hess Fischl, 2018). Young individuals have started using e-cigarettes more often. In the U.S., these devices were utilized by 13% of people in 2013, rising from 1.8% (Huilgol et al., 2018). Research on this subject has extended to determine whether there are any health consequences for this growing demographic. There is hardly much research on despite the fact that the bulk of research has concentrated on their association with oral health impact on the respiratory and cardiovascular systems. According to the Huilgol et al. questionnaire research Al., their investigation was the first to look into a relationship between adult e-cigarette use and bad. In America, oral health is important. Prior studies have shown that sealants used in clinical or educational settings can halt deterioration in their tracks for as long as nine years (Gryphon et al., 2016), averting 81% of instances at two years and 50% at four. Low-income households, which are most at risk for tooth carriers, do not apply dental sealants as often as they should. 60% of low-income children aged 6 to 11 lacked sealants, according to Gryphon et al.'s 2016 study. The development of programmers focused on schools has made it feasible to offer these protective covers for little or no cost. These kinds of programmers can help communities avoid future dental cavities, which might be more expensive. There were three times as many first molar cavities in children without sealants as there were in children with sealants.

5. DIETARY PRACTICES AND FOOD PREFERENCES

As previously stated, if fluoridation and dental sealants are not an option, the protection of our teeth may depend on the foods we eat. Certain nutrients are necessary for protecting the teeth as well as the other elements of the oral cavity. Making sure to maintain a nutritious diet throughout infancy and maturity protects teeth from demineralizing processes and keeps them strong and resistant. Another tactic is to avoid using substances that are very sweet or acidic in order to protect the mouth mucosa. Limiting the

use of sweetened beverages to a few times each week is a remedy that gives the teeth more time. If there is enough time between meals or snacks, teeth may have the chance to adequately remineralize and prepare for the next meal. According to Marshall [18], a daily schedule of three meals and three snacks lasting 30 minutes each, plus an additional 30 minutes for the pH of the plaque to return to normal, should support 6 hours of demineralization and 18 hours of remineralization. Simply waiting 30 minutes between meals and snacks will allow the pH to return to normal and prevent it from falling below the critical pH for an extended period of time less time than 30 minutes might lessen demineralization. By maintaining this time, tooth decay is prevented before enough demineralization occurs. If this guideline is followed, teeth will remain healthy and maintain a beautiful appearance.

6. ORAL CLEANLINESS

Despite these preventative measures, maintaining proper dental hygiene is still necessary. It has been shown that brushing your teeth twice a day is a really effective way to keep your mouth healthy. Brushing the teeth helps to maintain the teeth and gumline healthy and avoids infection by eliminating the cariogenic plaque that builds up all day and night. Furthermore, it is suggested to floss at least once every day. Plaque can still build up between the teeth, where a brush is less efficient, thus dental floss is required to help clean this area. The most common piece of advice is to see the dentist every six months. If just once a year is possible, this frequency will work. A dentist can spot problems that a patient cannot. They aid in slowing these anomalies' evolution and preventing consequences later in life. Since the mouth is a doorway to the rest of the body, dentists also detect nutritional deficiencies before they manifest and interfere with daily activities. Oral hygiene practices and routine dental visits may enhance your oral health.

7. CONCLUSION

It is impossible to overestimate the role that diet plays in dental health. The well-established link between food and oral health outcomes emphasizes the important role that dietary components play in maintaining a healthy mouth. The growth and mineralization of teeth, the

health of the gums, the generation of saliva, and the integrity of oral tissues are all supported by proper nutrition. People may provide their bodies with the nutrients they need for strong teeth and healthy gums by eating a balanced diet. For the best tooth formation, nutrients like calcium, phosphorus, and vitamin D are essential, while vitamin C promotes gum health and guards against periodontal disorders. The resilience and health of oral tissues are maintained by consuming enough important vitamins, minerals, and antioxidants, which helps to avoid diseases such as angular cheilitis and glossitis. On the other hand, unhealthful eating patterns, including consuming too much sugar, Regular snacking might raise the risk of tooth decay and dental caries.

Refined carbohydrates and sugars encourage the development of oral bacteria, which produces acids that erode tooth enamel. Changing to a diet abundant in fruits, vegetables, healthy grains, and lean meats can assist in preventing dental cavities and aid general dental health. Additionally, systemic health and nutrition are tightly related, with illnesses including Periodontal disease is more prevalent when a person has diabetes or obesity disease. By addressing these underlying conditions of health, you can have positive effects on dental health as well. Raising awareness of the relevance of diet and its effect on oral health outcomes is crucial for promoting good oral health. People can be empowered to make decisions that support their dental health by receiving education on nutritious eating habits, cutting back on sweets, and the value of nutrient-rich foods. Collaboration between dietitians and oral health specialists can result in integrated strategies that take both oral and systemic health into account, ensuring that each patient receives complete treatment. Last but not least, it is impossible to overstate the significance of diet for dental health. People may protect their oral health, stave off dental illnesses, and improve their general health by prioritizing a balanced diet. It will need further investigation into the complex interaction between diet and oral health as well as multidisciplinary and public health activities in order to create efficient methods for ensuring the best possible oral health results.

CONSENT AND ETHICAL APPROVAL

It is not applicable.

COMPETING INTERESTS

Authors have declared that no competing interests exist.

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