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Review Article

Diet Counselling For Pediatric Patient: A Review

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Abstract: It has become increasingly evident that dietary counseling is the most neglected of all preventive measures suggested by the researchers in terms of daily diet on the level of health as well as the susceptibility to a wide variety of diseases including that of the oral cavity. The dental practitioner is faced with a wide variety of diseases including that of the oralcavity. At times the clinician must teach the patient about diet, health and cause and prevention of disease. Successful diet counseling depends on the ability of the clinician to make the patient see the problem clearly and thereby work upon its solution. Objective of this paper is to review the evidence for an association between nutrition, diet and dental diseases and to present dietary recommendations for their prevention.
Keywords: Dentist, Pediatric Patients, Diet Counseling, Diet Diary

INTRODUCTION

Nutrition is defined as the sum of processes concerned in the growth, maintenance and repair of living body as a whole or its constituent parts [1]. According to WHO1971, Nutrition is a science of food and its relationships to health. It is concerned primarily with the part played by the nutrients in body growth, development and maintenance. Diet is referred to as food and drink regularly consumed. Balanced diet is one which contains varieties of foods in such quantities and proportion that the need for energy, aminoacids, vitamins, fats, carbohydrates and other nutrients is adequately met for maintaining health, vitality and general well being and also makes provision for a short duration of lenness.

The food that we eat affects our body in two ways [2]:

Systemic effect

Depends on their content of nutrients and includes the influence of such nutrients on general health, growth and development, cell renewal, ability of the tissues to repair and resistance to disease.

Local effect

Consists of what food can do to the tissues or their environment because of their mere presence in such environment. In dentistry, most local effects result from the interaction between food residues and oral bacteria, which lead to plaque bacteria, have effects on the soft and hard oral tissues.

Classes of Nutrients [3]

The classes of nutrients necessary for the growth of the child are:

- Energy providing carbohydrates and lipids
- Tissue building proteins
- Regulator vitamins and minerals
- Water comprising 55 to 65% of the total body weight.

Table 1: Caloric requirement for different age group [3]

	Toddler	Preschool	School	Adolescent	Adult	Pregnant women
Caloric requirement	1200-1500	1500	1800	2500	2800	2800
RDA – Protein requirement	18-20mg	22g	33g	50g	55g	100g

Diet and Dental Caries [4]

The patient diet and dental caries activity are related. From the dietetic viewpoint, dental caries is widely accepted as being caused ability by the ingestion of fermentable carbohydrates, particularly sucrose.

The cariogenic potential of foods containing sucrose depends on many variables such as the ability to:

- Be retained by teeth
- Form acids
- Dissolve enamel
- Neutralize or buffer acids [5]

Certain characteristic of sucrose- containing foods or conditions surrounding their consumption are more important in terms of carcinogenicity than the amount of sugar they contain. Thus, solid and retentive sucrose containing foods are more cariogenic than sugar containing foods that are liquid and non-retentive.

The frequency and time of ingestion of foods are also important. The sucrose containing food becomes more dangerous if it is eaten more frequently. Food eaten at meals produces less caries than the same eaten in between meals.

In decreasing order of cariogenicity, the foods are grouped as

- Adherent sucrose containing foods eaten frequently between meals
- Adherent sucrose containing foods eaten during meals
- Non retentive sucrose containing beverages consumed frequently between meals
- Non retentive sucrose containing foods consumed during meals.

OBJECTIVES OF DIET COUNSELLING

Objectives of diet counseling includes

- Conducting a Interview, where diet diary forms are introduced with a brief discussion of the purpose of diet counseling.
- A 24-hour diet record is prepared to get an idea of food the child is consuming.
- A six – day's diet diary is advised to be prepared by the patient.
- Complete records of six days diet diary are analyzed regarding the balanced and unbalanced diet.
- Isolating the sugar factors
- Educating the patients in the role of sugar in the decay process.
- The consumption of acceptable substitutes instead of more cariogenic foods.
- The recognition of practical limitations to immediate success.
- Provision of continuous positive reinforcement.

Diet Diary

Parents are asked to record every food item consumed- solid, liquid-during 6 consecutive days. Record food consumed at mealtime, between meals, at soda fountain or while watching television. Also record candies, chewing gum, cough drops. The approximate amount in household measures such as 1 cup, 1 table spoon, 1 tea spoon. The kind of food and how it was prepared, such as baked chicken, raw apple, cooked cereal etc. Additions to food in cooking or at the table: butter, sugar, cream etc.

Educate the patient in the role of sugar in decay process

The paque that forms in the teeth every day contains bacteria. These bacteria change the sugar present in food into acid shown below [6]:

SUGAR (in food) + PLAQUE/BACTERIA (germs) = TOOTH + ACID = DECAY

The grand total time of exposure to acid is used here, to give the patient a rough idea of the risk that his diet is imposing on his teeth.

Parents are asked to use substitutes, which are acceptable to the dentists in terms of lesser cariogenicity as well as to the patient as far as taste and preferences are concerned.

It is not fair to cut down all the sugar from the child diet. Intelligent use of sugar must be there and that is

- Use sugared food during meal time and
- Food consumption followed by appropriate oral hygiene measures.

Some times a compromise may be necessary. It is better to go from a very cariogenic to a less cariogenic than to obtain nothing.

Recall Visits

During the next months at regular intervals, the dentist should evaluate the patient's progress and provide psychological reinforcement.

Evaluations are made by means of:

- The patient's comments
- New diet diaries

- Susceptibility tests such as Snyder Test
- Clinical judgment

Reinforcement is provided by praising the patient's efforts.

Patients with high caries activity diet-counseling should be part of preventive procedure and it should include:

- Immediate removal of all carious tissue and placement of ZnOE restorations
- Topical fluoride applications
- Plaque control instructions
- Home use of fluoride containing dentrifrices and mouth rinses.

CONCLUSION

Diet counseling and frequent patient contact makes the dental professionals to screen patients for dietary shortfalls and nutritional deficiencies that may impact oral health.

REFERENCES

1. Sheiham A; Dietary affects on dental diseases. Public Health Nutrition, 2001; 4: 569-591.
2. Kelly M, Steele J, Nuttall N, Bradlock G, Morris J, Nunn J, Pine C *et al*.; Adult Dental Health Survey - Oral Health in the United Kingdom 1998. London: The Stationery Office, 2000.
3. Navia JM; Nutrition and dental caries: ten findings to be remembered. International Dental Journal, 1996; 46(Suppl. 1): 381-387.
4. Scheinin A, Makinen KK, Ylitalo K; Turku sugar studies. V. Final report on the effect of sucrose, fructose and xylitol diets on the caries incidence in man. Acta Odontol Scand., 1976; 34(4):179-216.
5. American Academy of Pediatric Dentistry; Policy on baby bottle tooth decay (BBTD)/Early Childhood Caries (ECC).. Pediatr Dent., 2002; 24(7): 23.
6. American Academy of Pediatrics; The use and misuse of fruit juice in pediatrics. Pediatr., 2001; 107(5): 1210-1213.