**Importance of a Diet Diary**

A diet diary is an essential piece of evidence in to a patient’s teeth and for the health, says Dilhani Silva

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Dietary analysis consists of two elements. *Enquiry into lifestyle.*

*Enquiry into dietary components themselves.

Information about the diet itself is of little value unless it is taken in context with the patient’s lifestyle. Only dietary recommendations tailored to the patient’s life are likely to be adopted. The diet record should include all the foods and drinks consumed the amount and the time of eating or drinking. Every morsel eaten & every drop that has been drunk. The diet record should include all the foods & drinks consumed, the amount in readily estimated units and the time of eating or drinking.

Analysis of the diet itself may be performed in a variety of way. The patient can be asked to recall all foods consumed over the previous 24 hrs. This is not very effective, relying on a good memory and honesty, and is unlikely to give a representative account. Relying on memory for more than 24 hrs, is too inaccurate. The most effective method is to keep a written record of their diet for four-five consecutive days, including two working days and two leisure days. The need for the patient to comply fully & assess their diet honestly must be stressed & of course, the diet should not be changed because of it being recorded. Ideally the analysis should be performed before any dietary advice is given. Even the patient who does not keep an honest account has been made more aware of their diet. If they know what foods to omit from the sheet to make their dentist/oral health educator/dental nurse happy, at least the first step in an educative process has been made.

How to analyse a diet sheet

Highlight sugar rich foods & drinks Note whether they are confined to meal times or whether they are eaten frequently and spaced through out the day as snacks. The number of sugar attacks should be counted and discussed with the patient. Also the consistency of the food because dry & sticky foods take longer to be cleared from the mouth. Sugared drinks taken immediately before bed are highly significant because saliva flow is reduced during sleep and clearance time is greater. Identify foods with a high hidden sugar content because patients often do not realise that such foods are in significant, e.g., baked beans, breakfast cereals, tomato ketchup, & plain biscuits.

If the diet sheet shows the main problem for the patient is too many sugar contains drinks and frequent drinks & carbonated drinks & frequent snacking of biscuits and cakes. Most meals or snacks contain high sugar item & some more than one. The patient needs to be educated in safer diet. The patient should be educated in the relationship between caries & high frequency in consumption of sugar. The dental profession has been aware for over half a century that the frequency of sugar intake is far more significant in the development of caries than the amount consumed at any given time.

Advice based on Diet Diary

- Particularly those containing sugar. It is important to give the same advice as other health professionals such as dieticians and health visitors, who are concerned with other aspects of health, such as obesity. But it is rare that patients fail to have a healthy diet having concerns about their teeth rather than size.
- Dental profession has suggested that plain crisps, peanuts & cheese are tooth-friendly alternatives to sweet, biscuits & confectionary. When reading labels, it can be seen that some nut snacks contain hidden sugars, and this should be pointed out to the patients.
- Should always check and liase with the patients medical condition. Some must have been a told by their health professionals to avoid such foods for other health reasons. Advice always must be balanced and accurate.
- Particularly school children & adolescent require frequent intakes of carbohydrates to sustain energy. In such cases it is essential to mention frequent snacks such as pasta, bread & toast, bread sticks fruit and raw vegetables.
- Public has raised awareness of hidden sugar & salt with the current trend towards healthy eating. It is important to be able identify hidden sugars (eg. Glucose, fructose, dextrose, maltose, lactose & molasses) to look for these on food labels.
- Also the relationship with such food can contribute to obesity & heart disease as well as caries and behavioural disorders.
- The use of artificial sweeteners is increasing as the public becomes more diet conscious, since their low calorific value means that they are virtually non-cariogenic & non fattening. Sweeteners can be of synthetic or natural origin. (eg. xylitol, a plant extract).

Facts-The advice below can elaborate on it more

*Reduce the amount of sugar*

Check manufacturers’ labels and avoid foods with sugar such as sucrose, glucose & fructose listed. Natural sugars (eg honey, brown sugar) are as cariogenic as purified/added sugars. When sweet foods are required, choose those containing sweetening agents such as saccharin, acesulfame- & aspartame. Diet formulations contain less sugar than their standard counterparts. Reduce the sweetness of drinks & foods. Become accustomed to a less sweet diet overall.

**Restrict frequency of sugar intakes to meal times as far as possible**

Try to reduce snacking. When snacks are required select safe snacks such as cheese, crisps, fruit or sugar free sweets, such as mints or chewing gum (which not only sugar but also stimulates salivary flow and increases pH). Use artificial sweeteners in drinks taken between meals. 

Speed clearance of sugar from the mouth

Never finish meals with a sugary food/drink. Follow sugary foods with a sugar free drink, chewing gum or a protective food such as cheese. The dietary advice is almost always provided using the health belief model of health education. How ever it is well known that education about the risks and consequences of life style, habits & diet is often ineffective. It is important to judge the patients likely compliance & provide dietary advice which can be used to make small but significant changes rather than attempting to eradicate all the sugar from diet. As the diet improves, the advice can be adoped & extended. Advice must be acceptable, practical and affordable. In this case the patient has already suffered consequences from his poor diet & this may help change behaviour. The patient must be made aware that damage to teeth continues up to 20 mins to 2 hrs of sugar intake. The statement should be rephrased with Stephen curve without difficulty.

The Stephan Curve describes the change in dental plaque pH in response to a challenge. The type of challenge does not matter but it is usually some element of the diet. Characteristically the Stephen Curve reveals a rapid drop in plaque pH, followed by a slower rise until the resting pH is attained. The time course varies between individuals and the nature of the challenge. The initial drop is usually rapid with the lowest pH being attained within a very few minutes. However, pH recovery can take any-thing between 15 & 40 minutes depending to a large extent on the acid-neutralising properties of the individual's saliva.

The patient should be advised to use fluoride containing toothpaste. During the period of dietary change it would also be beneficial to use a weekly fluoride rinse as well. This could be continued for as long as the diet is felt to be unsafe. Oral hygi-ene instruction is also important in view with elaborating importance of diet.

The Committee on Medical Aspects of food Nutrition Policy established in 1996 in the UK. It is the panel on Dietary sugars to look at the role of the sugars in the diet. Make sure all the patients are very welcome to do their own research. Amongst the panel recommendations:

- The frequency of sugary snacks and drink consumption should be minimised.
- Food and drinks that predispose caries should be limited to main meal times. This is specially important for older dentate people, children and adolescents.

**Conclusion**

According to the U.K Department of Health ‘Eating a healthy, balanced diet which contains plenty of fruit and vegetables and is low in fat, salt and sugar and based on whole grain products, is important for promoting good health.’

Food is the fuel which provides energy for the cells of living organism to grow, reproduce and eliminate waste; and if the cells of the body are to function efficiently, all the nutritio-nal substances must be consumed in the correct proportions.

About the author

Dilhani Silva is a qualified and reg-istered Dental Nurse who has done the OHP exam and is getting ready to sit for the Dental Radiography exam in December 2010. She works as a Dental Nurse/Recep-tionist/Oval Health Educator & an Administrator for Apex Dental Care, London.