

ADOLESCENTS, NUTRITION AND EATING DISORDERS

Rosemary Stanton, OAM
Dietitian and Nutritionist

Adolescent girls in Australia have some of the worst eating habits of any group in the community. Some consume too many foods of poor nutritional value, while others try to eat as little as possible. The incidence of anorexia nervosa and bulimia nervosa is highest during the adolescent years for girls. Although adolescent boys suffer much less from eating disorders and most have a higher intake of nutrients because of their legendary appetites, some make poor food choices. Obesity is a growing problem for both boys and girls, with the National Nutrition Survey classifying 25 per cent of boys and 19 per cent of girls as overweight or considered at risk of being overweight.¹

This article examines some of the eating disorders presenting in adolescents and their impact on oral health. It also describes the patterns of food consumption by adolescents and how this can be influenced to minimise the consumption of unnecessary sugars and saturated fats.

EATING DISORDERS

Surveys show that many adolescent girls are underweight and are dissatisfied with their body weight.² Estimates of eating disorders vary, and they depend on the diagnostic criteria used, but studies in South Australia indicate that bulimia nervosa and anorexia nervosa may occur in about 0.5–1.0 per cent of women, while up to five per cent of women have some degree of eating disorder.^{3,7} Young women who diet are at most risk. Diagnosis of bulimia and anorexia nervosa is sometimes made by dentists who observe dental erosion due to the acidity of repeated vomiting attacks.

Treatment of eating disorders is difficult. However, the earlier treatment begins, the greater the chances of success. A team approach is necessary, and this should involve a general practitioner, dietitian and psychiatrist or a health professional with expertise in this area.

Anorexia nervosa does not always involve vomiting, although this is a common feature. Some girls simply do not eat, and boys suffering this problem often engage in excessive exercise coupled with low food intake. Bulimia, whether it occurs in conjunction with anorexia nervosa or on its own, is more likely to be noticed by dentists. The diagnostic criteria for bulimia nervosa are:

- recurrent episodes of binge eating
- feeling of lack of control over eating behaviour during binges
- regular inappropriate behaviour to prevent weight gain

- such as self-induced vomiting, misuse of laxatives or diuretics, strict dieting or fasting, or excessive exercise
- minimum average of two binge and compensatory episodes a week for at least three months
- persistent over-concern with body shape and weight.

GENERAL NUTRITION IN ADOLESCENTS

Adolescents who are growing and playing sport need more food than their parents do. They also have extra requirements for many nutrients, especially calcium and iron. The average adolescent boy meets his needs for these and most other nutrients, although many do not consume enough dietary fibre. The major problem for boys is their consumption of large quantities of saturated fat. Their starch intake is relatively low.

Many girls fail to consume enough iron, zinc, calcium, starch and dietary fibre. Their mean potassium intake is also towards the lower end of the desirable range. Fat intake for both boys and girls is likely to be higher than that reported, since almost everyone in the community now under-reports intake of fat and foods rich in fat. More high-starch foods, such as bread and cereals, in place of fatty foods would be nutritionally desirable.

Both sexes consume a lot of sugars from sucrose added to foods as well as intrinsic sugars present in fruits, and in milk products. In Table 1, the intrinsic sugars in the reported consumption of different types of fruit, vegetables, and natural milk products have been calculated from information in the National Nutrition Survey and compared with consumption of total sugars.⁴ Note that sugars in fruit drinks and juices have not been included in intrinsic sugars.

The Australian Dietary Guidelines suggest the consumption of 'only a moderate amount of sugars and foods containing added sugars'.⁵ It is difficult to define 'moderate', but the Committee of Medical Aspects of Food Policy (COMA) recommends that no more than 11 per cent of energy should come from non-milk extrinsic sugars,⁶ considerably less than Australian adolescents consume.

There is a strong argument that the body does not distinguish between different types of sugars, and any fermentable carbohydrate can contribute to dental decay. However, when discussing nutrition, we need to look beyond such concepts to examine the nutritional company that sugar keeps.

Most breakfast cereals, flavoured milk and yoghurt, and fruits canned in syrup or concentrated juice contain nutrients with their sugar. Sweetened breakfast cereals contributed 4.2 per cent of the sugar in the boys' diets and 2.7 per cent in those of girls.² Flavoured milk and yoghurt and canned fruits contributed less than four grams of sugar

TABLE 1**CONSUMPTION OF INTRINSIC AND EXTRINSIC SUGARS**

Sex Age (years)	Boys		Girls	
	12-15	16-18	12-15	16-18
Average total consumption of sugars (g)	181	212	128	119
Calculated consumption of intrinsic sugars (g)	39	38	35	27
Average consumption of extrinsic sugars (g)	142	174	93	92
% kilojoules from added sucrose	20	22	17	17

for both boys and girls. Much of adolescents' sugar intake comes from foods with low nutritional value, such as soft drinks, cordials, ice cream, iceblocks, chocolate, spreads, cakes, confectionery, sweet biscuits, pastries and sweet buns. Many of these foods also make substantial contributions to saturated fat intake.

This information is presented not specifically to damn sugar, but to point out that sugar-containing foods form a major part of adolescents' diets. Crisps and similar fatty salty snacks are also popular, and teenage boys and 12- to 15-year-old girls consume more of these foods than any other age group. Such foods also contain a lot of saturated fat.

The combined impact of foods of poor or negative nutritional value leads to a displacement of such nutritionally important foods as fresh fruits. The National Nutrition Survey found that 50 per cent of boys and 42 per cent of girls aged 12 to 15 years and 60 per cent of boys and girls aged 16 to 18 years had consumed no fruit in the 24 hours before the survey. Surveys by the Australian Horticultural Corporation have shown similar figures.

Healthy eating does not mean that any specific food needs to be eliminated. However, better nutrition means that some foods should be restricted to particular occasions. This philosophy complements dental education practices that suggest restricting foods with high caries potential to times when it is appropriate and possible to clean the teeth soon after eating.

Adolescents, like younger children, can accept the idea of menus. What is on the everyday lunch menu or the afternoon snack menu can be quite different from a party or holiday menu, or even what kids eat when out with friends. The everyday menu should feature such foods as fruits, vegetables, legumes, nuts, breads and cereals (with at least some being wholegrain), dairy products (low fat varieties are excellent), plus high-protein foods such as

fish, lean meat or poultry. When fats and sugars are added to these basics, they should not dominate the daily diet.

CONCLUSION

Some health professionals who work in the field of eating disorders believe we should not try to change adolescents' eating behaviour in case they develop an avoidance of food, which can lead to disordered eating. However, with the increasing problem of obesity in adolescents, better eating habits are urgently needed. Therefore, we should not shrink from nutrition education, but strive to avoid extremes. Oral health professionals, including dentists, can play an important role in nutrition education and need to understand some of the general health problems associated with nutrition and eating habits among Australian adolescents.

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