

DOSSIER

What do our teenagers eat?

The dietary behaviours of teenagers change and vary with the empowerment process and environmental factors. At the same time, recent studies are somewhat reassuring: if it exists, “junk food” does not dominate the teenage diet and, although a phase, is not indicative of the future eating patterns of our young adults. Beyond weight concerns, transitional changes to dietary intakes and/or behaviours reflecting the adaptation to new wants, needs and identities, some teenagers will unfortunately experience real eating disorders. The warning signs are the symptoms, which are sometimes clear, associated with this unique time of life.

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FOCUS

Adolescence is a time when energy and nutritional requirements increase. In five years, teenagers acquire 15% of their adult height and nearly half of their weight. This increase is primarily linked to the basic metabolism. Energy requirements vary from one individual to another, dependent on sex, age and above all weight and activity. Intakes must cover basic needs and additional needs generated by growth and puberty in addition to compensating for energy expenditure resulting from physical exercise, which can correspond to several hours of weekly activity.

"Tell me what you eat and I'll tell you who you are!" Or in other words, "you are what you eat..." These few words summarise the relationship between teenagers and food. From an objective nutritional purpose to a symbolic perception of foods participating in the construction of identity amongst teenagers, it will be understood that food intake, as a family, alone or with friends, easily becomes a stage where all manner of impulses, controls, empowerment, regression and conflict will be expressed. The move from passive maternal feeding to active learning and then progressive independence will not be seamless for some. The problem in our countries is not so much the risk of dietary deficiencies as the development of abnormal eating behaviour: orthorexia, "trendy" dietary patterns, poor dietary habits or even eating disorders....

WHAT TEENAGERS EAT

- **Macronutrients**

Between the ages of eleven and fourteen, the respective contribution of proteins, carbohydrates and fats to calorie intake remains stable with 15 to 17% for proteins, 45 to 47% for carbohydrates and 37 to 39% for fats. After the age of fifteen, pure macronutrient intakes remain stable overall, albeit with a reduction in protein and fat intakes in girls in favour of an increase in carbohydrates, primarily simple carbohydrates. The decrease in complex carbohydrates proves to be marked (-16%) in line with the fall seen in the consumption of bread and bakery goods, to be compared to the decrease in fibre intakes (-11%).

Adolescence entails high protein requirements due to the increase in lean body mass. Quantitatively protein should

account for 12 to 15% of total energy intake. Studies show that, with the exception of certain unconventional dietary practices, usual protein consumption easily covers the needs of teenagers.

RECOMMENDED NUTRITIONAL INTAKES (RNI)

In industrialised countries, the adaptation of dietary intake in accordance with increased appetite usually covers energy requirements:

2001 RNI	Boys		Girls	
Teenager aged	Light activity	Moderate activity	Light activity	Moderate activity
13 to 15	2,450 kcal/d	2,800 kcal/d	2,300 kcal/d	2,550 kcal/d
16 to 18	2,850 kcal/d	3,200 kcal/d	2,300 kcal/d	2,550 kcal/d

The consumption of starchy foods, fruit and vegetables is stable with an increase in cooked fruit in the compote style. Vegetables that are cooked or in sauce are generally unpopular, with teenagers preferring "aesthetic" foods and dishes (shapes, colours, etc.). The consumption of fruit and vegetables is higher in girls (70% consume at least one per day). It falls between the ages of eleven and fifteen, particularly in boys. The preference moves to raw or crunchy vegetables with soft white cheese or various dips.

Over a third of teenagers state that they consume sweet products at least once daily. The consumption of confectionary rises between the ages of eleven and fifteen, particularly in boys.

The consumption of dairy products stabilises over the course of adolescence and is identical in both sexes. "Transportable" dairy products such as drinkable yoghurts and cheese in individual portions are usually preferred by the young, with "stinky" cheeses mainly being eaten during family meals. Milk has a special status, a remnant of childhood of which consumption falls over the years, particularly in public, as it is "embarrassing", but which can be comforting in the privacy of the family home, or in the morning with cereal. It is also interesting to note a link between regular physical exercise and healthy habits: the consumption of fruit and vegetables, not skipping breakfast, lower consumption of sweet products and the multi-daily consumption of dairy products.

- Important vitamins and minerals during adolescence

Iron: during adolescence the requirements related to tissue growth and increasing number of red blood cells are high. In girls, these needs are increased by menstruation (16 mg/d in girls and 13 mg/d in boys). Current consumption is significantly insufficient in 40% of girls. The risk of iron deficiency rises in the case of heavy periods or restricted diets such as vegetarianism or veganism.

WEIGHT AND SELF-ESTEEM

At the age of fifteen, 40% of girls think that they are too fat whereas 20% of boys think that they are too thin. It is important to reassure teenagers and their families on the physical changes inherent in adolescence. Physiological pubertal changes may lead to weight fluctuations, making them questionable. Therefore, it is sometimes necessary to help teenagers to retain their common sense in the face of contradictory messages. Professionals have a duty to help families to remain vigilant and not be the source of dietary measures or even diets that are damaging to the health of teenagers.

Calcium: adolescence is a key time for bone growth and the acquisition of bone stock. The recommended calcium intake is 1,200 mg/d. Yet according to investigations, consumption is largely insufficient, particularly in girls, with the results of the INCA2 study showing that calcium intake in young people aged 15–17 does not reach 700 mg/d in girls and 870 mg/d in boys.

Vitamin D: vitamin D intake must be sufficient to enable the fixation of calcium. Daily needs vary in accordance with age, skin pigmentation and amount of sunlight. The American Academy of Pediatrics has increased its recommendations for the daily intake of vitamin D in babies, children and teenagers from 200 UI/d to 400 UI/d (i.e. 10 µg instead of 5 µg). Although substitution remains rather simple to provide (one ampoule of vitamin D every three months in autumn/winter), screening for these deficiencies is more problematic, with systematic testing for the vitamin (25-OH vitamin D3) not being common practice.

WHAT TEENAGERS KNOW

Teenagers are greatly influenced by the media and, like their parents, exposed to a complex and contradictory discourse: a society obsessed with the perfect body, associating the

personal value of an individual with the image of the ideal, a society of the "here and now", where frustration no longer appears to have educational value, and a society of opulence with pressure to consume and a cacophony of nutritional messages.

Awareness of the measures of the PNNS (National Programme of Nutrition and Health) has been observed, but the multitude of sources of nutritional information is not enlightening. Mistaken beliefs, ignorance of basic nutritional rules and confusion between the messages are not unusual, and it would be wrong to think that all teenagers have good dietetic and nutritional information.

CHANGES IN DIETARY BEHAVIOUR DURING ADOLESCENCE

From birth, children assimilate multiple dietary lessons to construct their own identity as an eater. It is within the family that children learn to eat in imitation of the parental model. Meals are an important time when children watch and learn what is "good for them".

Teenagers, who are in search of an identity and membership of a group, seek to gain independence by opposing their parents including in dietary behaviour. Adolescence is also a time of significant physical transformation when individuals construct their own relationship with food and the pleasure of eating. It is in general at this time that the consumption of snacks — pizza, sandwiches, fast food, and so on shared amongst friends — begins and seeks to oppose balanced family meals. Contrary to popular belief, the episodic consumption of this type of food is in no way disastrous (versus the consumption of sweet products or even skipping meals). However, the risk of weight gain or obesity in teenagers with a personal or family issue must not be overlooked. Teenagers must learn to control their dietary urges and diversify their diet, which is not easy. In the face of anxiety over the changes and sometimes the related depression, eating can constitute a sort of refuge and comfort for certain teenagers, which will cause greed. Some teenagers, girls in particular, will seek to control it, often excessively. The balance is difficult to find. This is where adults have an important role, provided that dietary behaviour is not reduced to a mere action and is instead situated in the psychological context of teenagers.

RECENT CHANGES IN DIETARY BEHAVIOUR

A tendency towards the destruction of dietary rhythm has been observed in young people, particularly since 1999. It is thought to be linked in part to the loss of reference points, due to the breakdown in the family setting. Ultra-precocious independence, on joining secondary school, prompts some teenagers lacking in reference points to resort to snacks and "prepared" foods (toasted sandwiches, hotdogs, etc.) which are high in fat and sugar. When going to college, lunching becomes infrequent as canteen meals are often described as "ugly and bad". Teenagers prefer to meet off the premises to eat street food or go to fast-food restaurants in groups. In 2007, however, the traditional French rhythm of three meals per day, to which an afternoon treat may be added, persists globally (> 70% of teenagers). Nevertheless, according to the INCA2 study, 50% of 15–17 year olds do not breakfast every day, particularly girls, with the trend increasing with age in both sexes. Skipping at least one meal is not unusual and more than one teenager in two is thought to snack between meals.

THE ALIMADOS STUDY

The Alimados study confirms that communitarianism is irrelevant in dietary terms. On the contrary, young French people incorporate various cultures into their diet and mix adolescent and family culture according to the circumstances. The emotional aspect remains fundamental in their relationship with food.

Family meals and home cooking remain high amongst the culinary preferences of teenagers, who assimilate this as they do everything else, for many with ease.

This study also shows the double constraint to which teenagers are subject: food is a source of freedom, pleasure and enjoyment but also self-regulation in an aesthetic and healthy ideal. Essentially, adolescent diversity, dietary diversity and population diversity are combined and organised to offer teenagers an innovative dietary pattern mirroring our society.

According to the INPES [French National Institute for Health Prevention and Education] 2005 barometer, 80% of young people eat with their family, approximately one third of young people lunch in the school canteen whereas a proportion that is small but grows over adolescence to reach 20% in 18–20 year olds frequent a fast-food restaurant. In addition to the disappearance of the family meal, even

resulting in the lack of a table making it possible to eat together, some teenagers eat alone in their bedroom, in front of the television or computer, and have what they find in the refrigerator. Other families sit down to the table but do not cook and serve pre-prepared foods. Everyone can therefore eat what s/he likes, thereby losing any notion of meals and dietary balance.

The results of the recent Alimados study (OCHA conference) appear rather reassuring, concluding that the teenage diet is more connected with pleasure and self-construction than obesity and eating disorders.

CONCLUSION

Food contributes to reassuring teenagers when it is shared in the family, to discovery when it is taken amongst friends and to the maintenance of health when it is balanced. Teenagers are not fans solely of "junk food" and remain attached to the transmission of dietary family values. They build themselves an adolescent dietary culture, incorporating cross-cultural models, and prefer sharing amongst friends, their dietary choices incorporating more dietetic, social and familial norms that enable self-construction than ever. Nevertheless childhood obesity and eating disorders remain a problem, where the place of information and methods of prevention are subject to debate. The role of general practitioners and/or paediatricians appears essential, in connection with families, in detecting abnormal or even pathological eating disorders, and for height/weight and pubertal monitoring. Not forgetting that food is one aspect of a special relationship and context that is the adolescent process.

BIBLIOGRAPHY