

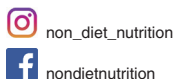
NUTRITION IN ADOLESCENCE: KEY CONSIDERATIONS



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This article considers some of the key nutritional considerations for adolescents, in terms of helping them achieve and maintain a healthy and balanced diet during this significant time.

Puberty is the period of rapid and significant change during adolescence, when a child's body begins to develop and transition into adulthood. It's the second largest growth period after infancy. During this time, there are significant hormonal changes involving areas of the brain, reproductive organs and the adrenal glands. This shift in hormonal balance triggers changes such as bone growth, gain of muscle and weight, hair growth and maturation of reproductive organs. The average age for onset in the UK is 11 for girls and 12 for boys.

Proper nutrition is very important during this developmentally sensitive time, which can influence health during subsequent life stages. This can be achieved through a varied, balanced diet in the right quantities, but there are certain nutrients that are additionally important during adolescence, including B vitamins (especially folate and B12), vitamin A, vitamin D, iron, calcium, magnesium, zinc and selenium. There are also factors influencing the diets of this age group which are likely unique to this life stage.¹ These include:

- Parents and extended family – in relation to income, education, culture and religion
- Exposure to foods as an infant and child
- Schools – in relation to food education and availability
- Convenience



- Friends and social interactions
- Influencers and social media

CURRENT NUTRITIONAL CONCERNS

Iron

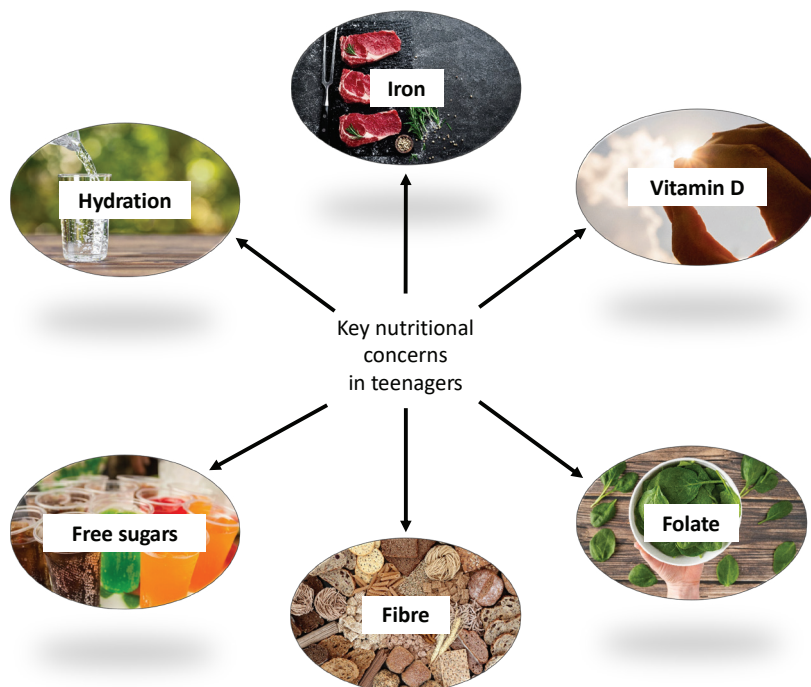
Using the best data we have on teenagers' diets in the UK – the National Diet and Nutrition Survey (NDNS)² – we can identify some general areas of concern for this age group (see Figure 1). Teenage girls have an increased requirement for iron compared with same-age boys (14.8mg/day vs 11.3mg/day).³ However, low iron intake is common for both girls and boys, with average intake at just 9.1mg/day. This puts a significant proportion of this age group at risk of deficiency. In fact, the proportion of teenage girls in the UK with haemoglobin and ferritin concentrations below the World Health Organisation (WHO) threshold for iron deficiency anaemia is 9%.

Vitamin D

Vitamin D is an essential micronutrient involved in immune, teeth and musculoskeletal health. Adolescence is the time of most rapid bone growth and sufficient vitamin D intake during this time is integral for reaching peak bone mass between the ages of 25 and 30. However, 19% of 11- to 18-year-olds have a serum 25(OH)-vitamin D level, placing them at increased risk of poor musculoskeletal health. Teenagers are advised to take a vitamin D supplement of 10µg/day during autumn and winter months.

REFERENCES

Please visit: www.NHDMag.co.uk/article-references.html

Figure 1: Key nutritional concerns in teenagers (NDNS)²

Folate

Folate is found in green, leafy vegetables, pulses, seeds, wholegrains and nuts and is essential for protein metabolism, and DNA and erythrocyte formation. In the UK, 53% of 11- to 18-year-olds have serum folate levels indicative of possible deficiency. This low level is especially concerning for teenage girls (potential future mothers), as during pregnancy, folate is crucial for the healthy development of the foetus.

Fibre

Fibre intake in this age group is below the recommended 30g/day, with only 4% meeting this recommendation. One contributing factor could be fruit and vegetable intake, which is the lowest average intake of all age groups at just 2.9 portions/day. Only 12% meet the recommendation for fruit and vegetables, demonstrating a potential for increasing fibre intake if the advised five portions a day is met.

Free sugars

In terms of overconsumption, free sugar intake in this age group is currently double the recommendation (12.3% of total energy intake).

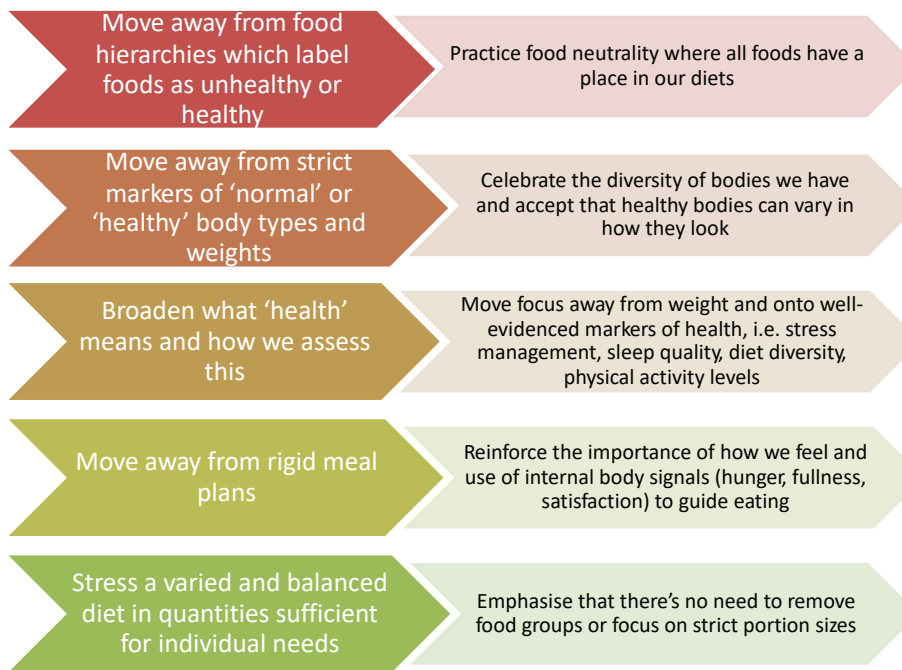
Sugar-sweetened soft drinks are the biggest contributor of free sugars in this age group and are consumed more by teenagers than any other age group.

DIETING AND BODY IMAGE

Concern with body weight and shape is very common in this age group. In addition to unrealistic beauty standards being set in the media and online, the relentless messaging from health campaigns against obesity keeps the focus on weight as a (poor) indicator of health. One study found that in 2015, 42% of 14-year-olds had been trying to lose weight, an increase of 12% from 2005.⁴ As previously mentioned, this age group requires a range of important nutrients and sufficient calories not just for their health through adolescence, but to ensure healthy adulthood too. The repercussions of weight loss diets are far reaching, ranging from less nutritious diets to an increase in depressive symptoms to, in some cases, eating disorders.

Eating disorders are much more common in teenage years, with unhealthy weight control behaviours being experienced by half of girls and one third of boys.⁵ The peak age for onset

Figure 2: Tips for moving towards a non-diet approach to nutrition and health



of eating disorders starts in mid-adolescence, a developmentally sensitive time. These are very serious psychological disorders and mortality from eating disorders is greater in young people (aged 15-24 years) than for many other conditions, such as type 1 diabetes or asthma.

When we communicate with adolescents it is, therefore, integral to move focus away from weight and onto holistic health and nourishment. See Figure 2 for some tips for moving towards a non-diet approach to nutrition and health.

FURTHER CONSIDERATIONS

The years of adolescence often end with more independence for the individual, meaning they're usually taking on most of the responsibility for feeding themselves. Therefore, the skills of meal and snack planning, grocery shopping and cooking are required so that they can transition to complete independence, which is often what a teenager is looking for. As they're adults of the future, it's key they have the skills to nourish themselves properly and ensure their health throughout life. Food education, however, isn't necessarily part of every school curriculum. As nutrition professionals, we could

offer considerable support to this age group as although many have a reasonable idea of what to eat, the ability to implement this day-to-day can be lacking.

Individuals in this age group are also more likely to be non-meat eaters; rates of vegetarianism and veganism are greater in this age group than others. One survey found that nearly half of all vegans in the UK are aged 15-34, compared with just 14% of over 65s.⁶ Plant-based diets are becoming more common in general but it's important to be aware that this might be especially so in this age group.

CONCLUSION

The key differences and challenges that are unique to this age group should be considered when working with adolescents and helping support them with their diets. Puberty can be a difficult time for many and is a sensitive time for both physical and mental wellbeing. A varied and balanced diet is one way to help ensure proper development and healthy adulthood. A shift away from focusing on weight and onto holistic health and emotional wellbeing is crucial at this important life stage.