Adolescence is a time of rapid physical and psychosocial change. Physical changes include the growth spurt and pubertal maturation, which require nutritional adequacy and which result in significant changes in body composition. The psychosocial tasks of adolescence, which are essential to the transition to functioning adulthood, include increased independence from family of origin and integration into the peer group, which in turn alter many lifestyle behaviours. There is evidence that the nutritional habits acquired in adolescence persist into young adulthood. Meal skipping, snacking, eating away from home and binge drinking may all affect dietary balance. There are also changes in physical activity throughout adolescence that may alter energy balance, particularly for females who reduce their activity levels. Puberty itself is a risk factor for obesity in adolescence, particularly in females.

Adolescent nutritional issues include underweight and overweight, as well specific nutrient deficiencies, restrictive dieting and fad dieting behaviours and the use of nutritional supplements. The presence of an eating disorder is a common cause of underweight and the diagnosis carries implications for both adolescent and future morbidity. A growing group of adolescents with potential for nutritional problems are the survivors of chronic childhood illness whose life expectancy has increased with improved medical and surgical therapies. These young people need to transition into adult care and are at risk of inadequate engagement with adult services. Nutritional advice and intervention needs to take into account the illness specific needs and the specific needs of adolescence.

The prevalence of overweight and obesity among children and adolescents has been increasing since the mid-1980s in most developed economies, as well as developing economies, making overweight one of the most common chronic disorders of childhood and adolescence. Adolescence is a “critical period” for the development of adult obesity, with obese adolescents having a 70-80% risk of becoming obese adults. Overweight and obese adolescents suffer a range of immediate and longer-term health and psychosocial problems. For these reasons, effective management of overweight and obesity during adolescence is a priority. There are barriers to successful intervention that include factors intrinsic to adolescence, as well the failure to perceive overweight as being present. Other barriers are the belief that overweight will resolve spontaneously at puberty and unfounded concerns that weight management might impair the adolescent growth spurt or induce an eating disorder.

The NH&MRC Clinical Practice guidelines for the management of overweight and obesity in children and adolescents were released in 2003, including a general practitioner resource. Unfortunately, these guidelines were not supported by any funding to educate health professionals, and it is impossible to determine their impact. There are about 10 published studies of randomised controlled trials of obesity management among adolescents, of which a third are pharmacological studies. The majority of these randomised controlled trials were performed in North America, generally in a tertiary care setting, and all involved intense behavioural management support. Such studies provide guidance as to the efficacy of treatment interventions for adolescents in resource-intensive settings. Research interventions are costly to operate, making them difficult to sustain, and tertiary care settings are unlikely to have the capacity to meet the high need or to be sufficiently convenient for the potential large numbers of young people who may require therapy. Interventions which operate at a sustainable intensity in accessible, community-based settings are required, as these do not exist for adolescents in Australia. However, there is no high level evidence regarding what types of interventions may be useful.

A major challenge when targeting adolescent health is to ensure easy access and retention. When adolescents are asked their views of an ideal health service, their suggestions include group programs, wide publicity, youth-specific services, confidentiality, respect and location in a setting that is informal and with welcoming staff. These findings are highly relevant to the development of a successful adolescent weight management program, or indeed any nutrition program. Community health centres are readily accessible by adolescents and offer a multi-disciplinary approach and competence in group programs, both of which are well-established elements of adult obesity management. However, information is needed on whether a community-based weight management. Initial results from an evaluation of a community-based weight management program for adolescents, the Loozit study, has shown positive results in weight management and lifestyle competency and is presented as a model on how adolescent interventions might best be accomplished.