An Approach to Weight Management in Children and Adolescents (2-18 years) in Primary Care

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Overweight children and adolescents can be managed by a primary care team who have a positive attitude to weight management. However the child/adolescent and family should want help and be willing to make life style changes. They may need on-going support to achieve **small incremental changes** in behaviour. Early intervention is better than waiting until the problem is severe. **A sustainable healthy lifestyle is the primary goal of management.**

Definitions and diagnosis

Body Mass Index (BMI) is the most practical measure of obesity/overweight, **provided values are related to reference standards for age.** Currently available British Childhood BMI charts show 91st, 98th and 99.6th centile lines. The 2002 charts also show the recommended International Obesity Task Force cut-offs for obesity and overweight in children. These correspond to the adult definitions of overweight (BMI ≥25) and obesity (BMI ≥30) at age 18. Rapid changes in BMI can occur during normal growth. There is great potential for reducing overweight in childhood and adolescence.

Management decisions depend on:

- the degree of overweight.
- age. Clearly, this influences intervention decisions as well as relative roles of child and family.
- related physical or psychological morbidity.
- the level of commitment to change, by child and family.

However, the lifestyle approaches described below may be of value to all.

Assessment

Consider:

Why help is being requested.

- Personal and family history of obesity and related problems e.g. diabetes and CVD. Family structure and social support.
- Physical activity levels, diet and eating patterns. Consider binge eating disorder and night eating syndrome.
- Psychological factors leading to or resulting from obesity. Consider self-esteem, bullying, depression, loss or bereavement, sexual abuse etc.
- Academic progress.
- Physical examination. Height and weight **in light clothing, no shoes**. Plot on standard charts with any previous measurements.
- Features of congenital syndromes, endocrine disorders, learning disability and obesity related morbidities such as orthopaedic problems and sleep apnoea.
- If acceptable to child/adolescent, evaluate pubertal development.
- BP measurement is good practice but requires a suitably sized cuff and table of norms for age.
- Test urine for glucose and protein.
- Further investigation should be guided by history and examination, but is seldom required. Indications for possible investigation include short stature, dysmorphic features, severe learning disability, no family history of obesity/overweight.

Rare causes of obesity:

- Endocrine problems (Usually have short stature or faltering growth):
  - Hypothyroidism (particularly in Down's syndrome)
  - Cushing's syndrome (truncal obesity, hypertension, hirsutism, purple striae)
  - Growth hormone deficiency (may have weight gain and delayed puberty)
- Chromosomal abnormalities e.g. Prader-Willi (poor linear growth, developmental delay, small genitalia, dysmorphic).
- Drug related e.g. steroids

Also predisposing factors such as:

- Spina bifida
- Muscular dystrophy
- Other causes of immobility
- Polycystic ovarian syndrome

Refer to Paediatrician if:

- Serious morbidity related to obesity (e.g. sleep apnoea, orthopaedic problems, type 2 and NID diabetes mellitus, hypertension).
- Height below 9th centile, unexpectedly short for family or slowed growth velocity.
- Precocious or late puberty. (Before 8 years or no signs at 13 in girls, 15 in boys).
- Significant learning disability.
- Symptoms / signs of genetic or endocrine abnormalities.
- Severe and progressive obesity before age 2.
- Other significant concerns.

Weight management options:

- No weight gain as height increases.
- Weight gain slower than height gain.

NB **Rapid weight loss and strict dieting are not appropriate** for growing children unless under specialist care. Children over 7 years old with obesity and / or complications may benefit from gradual weight loss e.g. 0.5kg / month. If adolescents have stopped growing, weight loss of around 0.5kg / week may be appropriate.

Action

Successful interventions involve the family and are tailored to each individual. Parents are important role models, particularly for younger children. Weight gain is controlled by addressing eating habits, physical activity and inactivity, psycho-social and family issues.
The multi-disciplinary team needed may include GP, Practice Nurse, Health Visitor, School Nurse and other professionals if available e.g. Paediatric Dietician, Clinical Psychologist, Community Paediatrician.

Physical activity suggestions:

- Any increase in activity will help.
- Aim for sustainable lifestyle activity such as walking, cycling, using the stairs instead of lifts.
- Develop an active lifestyle in the whole family.
- Walk or cycle to school.
- Encourage active play that is enjoyable and activities that do not cause embarrassment.
- Decrease TV viewing and other sedentary behaviours.

Dietary suggestions:

- A balanced, varied diet for the whole family.
- Meals at regular times; avoid grazing and TV snacks.
- Smaller portions.
- Avoid using food / snacks as rewards or treats.
- Healthy snacks (e.g. fruit) as alternatives to sweets, chocolates, crisps, nuts, biscuits, cakes.
- Less energy dense food e.g. semi-skimmed milks, low fat spreads.
- Whole foods which take time to eat e.g. fruits and wholemeal bread.
- At least 5 portions of fruit and vegetables per day.
- Low calorie drinks (preferably water).
- Grill, boil or bake foods without added fat, rather than frying.

- **Negotiate realistic goals** and monitoring plans. Parents should be involved as much as possible, but adolescents may prefer to take responsibility for themselves.
  - Make small, progressive, sustainable changes in eating habits, physical activity and inactivity.
  - Develop coping strategies for teasing/bullying and steps to increase self-esteem and confidence.
  - Address psycho-social issues. Consider using counselling or specialist services.
  - Encourage positive parenting styles which will develop emotional well being. Involve Health Visitor and use parenting education and support as appropriate.
  - Offer regular follow up, e.g. weekly initially, then monthly.

- **Make available information on:**
  - local physical activity facilities.
  - healthy eating.
  - local parenting support groups.

Keep a positive attitude!
Always consider the feelings and sensitivities of each child or adolescent.

Further information is available on:
www. rcpch.ac.uk
www. nationalobesityforum.org.uk
www. hebs.scot.nhs.uk/learningcentre/weightmanagement/childhood
www. aso.org.uk
www. health-for-all-children.co.uk
www. foodstandards.gov.uk/healthiereating/dailydiet
www. bda.uk.com
www. hda-online.org.uk