Eating Disorders

Key facts for GPs

Definitions and numbers

Eating disorders are common, often serious and potentially fatal. Lifetime prevalence of eating disorders is around 3% of the adult female population with 0.4% Anorexia Nervosa, 1% Bulimia Nervosa and the rest Binge Eating Disorder and atypical eating disorders.

Anorexia Nervosa:

1. Self imposed weight loss to a BMI of 17.5 or less.
2. Body image distortion. The patient feels fat when underweight, denies thinness when clearly present or acts in a way that suggests such beliefs (such as self-induced vomiting of meals when underweight).
3. A widespread endocrine disorder manifesting as amenorrhoea of at least 3 months duration.
4. The condition is termed *Anorexia Nervosa, restrictive subtype* if bingeing and or vomiting or laxative abuse are absent and *bulimic subtype* if present.

Bulimia Nervosa

1. Episodes of massive overeating (bingeing). Binges must be objectively large and accompanied by distress as a feeling of loss of control. They should have happened at least twice a week for the previous 3 months.
2. Inappropriate compensatory behaviours such as self-induced vomiting, laxative abuse, excess exercise or prolonged fasting.
3. A body image disturbance in which body shape, weight and size are abnormally important in determining self esteem. Body image disparagement (hating parts of the body) is often present.
4. The condition is termed *purging subtype* if vomiting, laxative or diuretic abuse are present and *non-purging subtype* if they are absent.
5. Weight may be normal or high. If BMI is <17.5 the condition is termed *Anorexia Nervosa, Bulimic sub-type.*

Binge Eating Disorder

1. Episodes of massive overeating, as in Bulimia Nervosa. The episodes have occurred at least twice a week for the previous 6 months.
2. Absence of compensatory behaviours.
3. Presence of significant distress regarding binge eating.
4. Weight may be normal or high. Because of the absence of compensatory behaviours, weight is often high, and can be in the obese range.

Atypical Eating Disorders or Eating Disorder Not Otherwise Specified (EDNOS)

The patient has eating disorder symptoms but fails to reach criteria for the full disorder, e.g. as for AN but BMI is 18, or as for BN but frequency less than indicated.

Aetiology - The causes of eating disorders are many and interactive. Thus, there is an increased family incidence of eating disorders indicating a possible genetic influence, and monozygotic twins are much more likely to be concordant if one has anorexia nervosa, than dyzygotic twins. There is also an increased family rate of affective disorder which may be genetic. Childhood experience appears to be relevant in that a fair proportion of patients with eating disorders (as well as those with other psychiatric disorders) have a history of child abuse. Whether more subtle childhood influences are relevant is unknown, although the daughters of women with anorexia nervosa do seem to have an increased rate of the disorder. Life events appear to play a role as they do with many conditions, and parental breakup, relationship breakup, exams and family e.g. grandparental deaths, often figure in the year prior to the onset of an eating disorder. Lastly, the culture of thinness has an impact in western countries, and it is of interest that as countries, for example in Eastern Europe, become more affluent, the rate of eating disorders increases.

Clinical features - Three typical presentations follow:

A 16 year old girl is brought by her mother because of weight loss a loss of menstruation. She is resentful and not keen to come to the GP but does admit to feeling low and anxious, with difficulty concentrating on her upcoming GCSE exams. She feels cold and wears large jumpers to conceal her thinness and keep warmer. She is keeping her weight down by restriction and exercise. You find that her BMI is 17 and that she has lost 7kg since the previous year, when she was last weighed on joining the practice. She has an older sister at Oxford, and feels very stressed about her academic achievement. Blood tests show a mild hypothyroidism with low TSH and a mild normocytic anaemia.

A 25 year old lawyer presents because of failure to lose weight, wanting referral to a weight loss clinic. You note that her BMI is 22, and that it was 24 when she joined the practice 3 years ago. On further questioning she describes low mood and hatred of her body with a wish to lose more weight. She also admits to bingeing about which she feels very ashamed, because she regards herself as greedy and out of control. After bingeing she either induces vomiting or takes huge doses of laxatives, something her mother advised. Onset was 2 years ago after a broken engagement. She has had postural dizziness and you find a significant postural drop in her BP of 35mm Hg. Blood tests show a potassium level of 2.9 and an ECG shows U waves and multiple ventricular ectopics.

A 45 year old man with gradually increasing obesity presents with a request for referral for bariatric surgery. You note that his BMI is 45 and that he has recently developed Type 11 diabetes. On questioning he has pain in both knees and symptoms of sleep apnoea. He diets for several days but then loses control once or twice a week and eats vast quantities of food, which results in an increase in his weight. His sister and mother both suffer from obesity and diabetes. Blood tests show normal thyroid function, but a respiratory consult confirms severe Obstructive Sleep Apnoea and he is prescribed a CPAP mask which he finds claustrophobic and does not use.

Other complications of eating disorders - The complications mostly arise from low weight, purging or social isolation. Hence, in AN, amenorrhoea longer than about 6 months is associated with the development of osteopaenia and osteoporosis. Low potassium lead to cardiac and renal problems, and muscle wasting leads to difficulty rising from squatting or sitting up from lying flat (the SUSS (SitUpSquatStand) test). Bingeing and vomiting can cause gastric bleeding, reflux and dental damage and laxative abuse can lead to colonic atony and severe constipation and prolapse. The infertility associated with AN is due to hypothalamic dysfunction and is reversible by weight gain. Psychological reactions, mainly depression, occur as a result of weight loss, nutritional disturbance and social disruption, but obsessive compulsive disorder may precede the onset of anorexia nervosa and get worse as weight declines.

Treatment

General points:
Eating disorders are treatable conditions and results are improved by early intervention. In general, adolescents and young adults with anorexia nervosa often respond to a combination of individual and family therapy, while patients with bulimia nervosa and binge eating disorder do well with guided self-help, cognitive behavioural therapy and, in those who do not respond to psychological approaches, antidepressant drugs such as Fluoxetine. A minority of patients with anorexia nervosa and fewer still with bulimia nervosa require intensive treatment such as day and inpatient care.

A care pathway for management of Bulimia Nervosa:
1. Assessment and diagnosis
2. Monitor electrolytes. Baseline ECG. Repeat if hypokalaemic.
3. Guided self-help:
Patient obtains a self help book (*Getting Better Bite by Bite*, by U Schmidt and J Treasure, or *Overcoming Binge Eating* by C Fairburn) and meets with a practice worker trained in guided self-help. Patient works every day with the book, and meets every 1-2 weeks with the practice worker for support and guidance in using the book. At 6 weeks reassess and if no significant progress refer for Cognitive Behaviour Therapy (CBT).
4. CBT: Patient keeps a dietary diary and receives 12-24 weekly sessions of CBT to discuss and change eating behaviour, other unhelpful behaviours (e.g. social withdrawal), cognitions about food, weight and shape, other unhelpful cognitions.
5. Offer information about B-EAT (www.b-eat.co.uk)

A care pathway for management of Hypokalaemia:
1. K <3.5, >3: Perform ECG. If ECG is normal, continue therapy and repeat K. If ECG is abnormal refer to hospital. If K persistently low, consider Sando K, 2-6 tablets per day.
2. K <3: Perform ECG and refer to hospital.

A care pathway for management of Binge Eating Disorder: As for BN but miss out step 2.

A care pathway for management of Anorexia Nervosa:
1. Assessment and diagnosis
2. Monitor BMI and electrolytes if vomiting or abusing laxatives. Baseline ECG, liver and thyroid function, Calcium, Magnesium, Phosphate. If amenorrhoeic for >6 months order Bone Mineral Density Scan.
3. Offer information about B-EAT (www.b-eat.co.uk)
4. Refer for specialist treatment (non-urgent) unless clinical risk factors present
5. Assess Clinical Risk Factors (Levels for concern are given in brackets)
a. BMI: 15-17.5 Low risk, 13-15 moderate risk, <13 high risk. High rate of fall of BMI (e.g. 1 kg per week) can cause increased risk at higher BMI. Also, beware of patient falsifying BMI (e.g. water-loading)
b. Physical examination:
(i) Check teeth and hands (calluses over knuckles, Russell's Sign) for signs of vomiting
(ii) Check pulse (bradycardia <50 bpm) and BP (<90/70) or postural drop (>10).
(iii) Check Muscle Strength:
SUSS test (SitUpSquatStand). Ability to sit up from lying flat and stand from squatting
(iv) Check temperature (<35 deg C)
c. Psychiatric examination: for thoughts of suicide and self harm, lack of appreciation of physical danger of weight loss.
d. Blood tests: Electrolytes (esp Na and K), LFTs (transaminases can increase with weight loss)
e. ECG: Check heart rate (<50), QTc (Corrected QT interval) (>450msec), (any arrhythmia).
6. If any risk factors in the "concern" range, refer urgently to specialist services. Consider referral to medical services if any marked physical abnormality.

Specialist services for anorexia nervosa, what do they offer?

- Assessment
- Outpatient therapy: Medical review, Dietetic support, Family therapy, family support, individual supportive therapy, CBT
- Day Therapy: the above plus meals and therapy groups
- Inpatient Care: above plus a bed (including compulsory treatment, naso-gastric feeding)

Compulsory admission

Criteria:

- Diagnosis of an eating disorder
- Life threatening physical or psychological symptom
- Refusal to accept recommended treatment.

Procedure: Section 2 or 3 need an Approved Mental Health Professional (AMHP), a Section 12 approved doctor and a registered medical practitioner. The AMHP makes the application (although in theory the nearest relative can). Section 4 needs only an AMHP and one medical recommendation.

Once in hospital, the patient is under the care of an Approved Clinician (the former RMO). This is still usually a consultant but now can be another mental health professional.

Once discharged the patient can continue to be under a Community Treatment Order to ensure that the patient receives treatment (eg Day Care) and if they refuse, readmission can rapidly be arranged.

Prognosis of eating disorders

Anorexia Nervosa	**Bulimia nervosa**
47% recover fully	45% recover
33% improve but remain symptomatic	27% improve but remain symptomatic
20% develop Severe & Enduring Eating Disorder	22.6% develop chronic Bulimia Nervosa
5% die from malnutrition or suicide	0.3% die

Further reading

National Collaborating Centre for Mental Health: Eating Disorders: Core interventions in the treatment and management of anorexia nervosa, bulimia nervosa and related eating disorders. British Psychological Society and Royal College of Psychiatrists, 2004.
http://www.nice.org.uk/CG009

MARSIPAN: Management of really sick patients with anorexia nervosa. College Report CR162, Royal College of Psychiatrists, Royal College of Physicians. 2010
http://www.rcpsych.ac.uk/files/pdfversion/CR162.pdf

eGuidelines.co.uk (2011) Primary Care Protocol for the management of adults with eating disorders.
http://www.eguidelines.co.uk/eguidelinesmain/guidelines/summaries/nutrition/rcpsych_eating_dis.php