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# Assessment and management of eating disorders: an update

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## SUMMARY

Eating disorders are common, but treatment is often delayed despite good outcomes with therapy.

Family-based treatment is recommended for children and adolescents with anorexia nervosa.

An extended form of cognitive behaviour therapy is effective for bulimia nervosa and binge eating disorder and can be used for adults with anorexia nervosa.

Selective serotonin reuptake inhibitors may help with bulimia nervosa and binge eating disorder.

Integrated primary and specialist care is recommended for optimal management.

## Introduction

Up to 1 in 10 Australians will experience an eating disorder in their lifetime with a general population point prevalence of around 5%.[1] Eating disorders, including anorexia nervosa, bulimia nervosa and binge eating, are characterised by disturbances in eating behaviour and psychological distress centred on food, eating and body image (Box 1).[1-3]

Diagnostic criteria for eating disorders are in a state of revision with new criteria introduced in 2013.[4] With less restrictive criteria, fewer patients fall into the residual category now termed 'other specified/unspecified' disorder, the most common category.

While there is a large unmet need, outcomes with treatment are good with most patients making a sustained recovery.[5,6] Even for anorexia nervosa, up to 40% of patients will make a good recovery within five years, a further 40% will make a partial recovery and those with persistent illness may yet benefit from supportive therapies. At least 50% of people with bulimia nervosa fully recover and the outcomes with treatment are also as good if not better for binge eating disorder.

## Risk factors

Eating disorders are associated with heritable psychological and physical vulnerabilities, most notably:

- a predisposition for perfectionism and compulsivity
- mood intolerance and impulsivity
- obesity (more likely in bulimic and binge eating disorders).

Environmental factors such as adverse life experiences including trauma and abuse, often associated with ensuing low self-worth, can also play a role. Exposure to the western ideal of being thin and restrictive dieting appears to be a specific risk factor.

Comorbidity is common. Mood, anxiety (especially social phobia) and substance use disorders occur most frequently.[3]

### *Box 1* Definitions and features of eating disorders

**Anorexia nervosa**

- underweight for age and height
- self-starvation
- compulsive exercising is common
- with or without episodes of binge eating and extreme weight control behaviours
- self image that is unduly influenced by weight and shape
- often age of onset in early teens or younger[2]
- 10 times more likely in females

**Bulimia nervosa**

- uncontrollable overeating followed by extreme weight control behaviours such as vomiting or purging (laxative or diuretic abuse)
- self view that is unduly influenced by weight and shape
- 10 times more likely in females

**Binge eating disorder**

- recurrent regular binge eating
- patients often struggle with being overweight or obese
- often a midlife disorder with similar incidence in males and females[1,3]

**Other specified/unspecified feeding or eating disorder**

- patients who do not conform to the other categories – e.g. they have mixed or additional eating problems

## Assessment

Most patients present late in the course of illness. Up to 50% of adults with anorexia nervosa may never seek treatment and people with bulimia nervosa present on average a decade or more after onset. When people do seek help, it is most often first from their family doctor and frequently for advice on weight loss, whether they are normal or overweight. People with anorexia nervosa, in particular, are ambivalent about treatment. A key task for health practitioners is motivating patients to commit to better nutrition and engaging them in psychological therapies to bring about sustained change.

All people presenting with an eating disorder need psychiatric and physical assessment. The history should include questions about:

- diet and attitudes to food
- weight, shape and body image
- common comorbidities, for example depression and/or an anxiety disorder
- risk of self-harm and suicide
- predisposing factors.

Physical examination should include cardiovascular status and a calculation of body mass index (BMI) based on weight and height (kg/m$^2$). Potential complications and important biochemistry tests are listed in Box 2.

In anorexia nervosa, physical complications of starvation are also present. While amenorrhoea may be removed from diagnostic criteria, it remains a useful indicator of starvation severity and the need for bone densitometry in women. Testing hormone levels will confirm hypogonadism, but is not essential. Women with eating disorders may present for infertility treatment. For those who become pregnant, it can be a stressful and challenging time.[7]

## Role of the general practitioner

GPs play a key role in early identification of eating disorders and the SCOFF questionnaire is a reliable and valid screening tool that can be used (Box 3).[8] They also have a valuable role in the management of these disorders (Box 2) and are the key link in access to specialist services and psychological therapies. They provide important support to families and carers, and doctors who have an interest in mental health may also provide psychotherapy. Cognitive behavioural guided self-help[9] is suitable for primary care.

## Anorexia nervosa

Although the evidence base for anorexia nervosa continues to be the least developed of the eating

### *Box 2* An overview of management of eating disorders in primary care

**Primary prevention**

Promotion of healthy attitudes towards body shape and weight

Promotion of good nutrition and exercise for health and social benefits

Identification and management (where appropriate) of risk factors (e.g. obesity)

**Detection and treatment**

Ask about symptoms of eating disorder

Education and family counselling

Supportive psychotherapy

Nutritional counselling

Cognitive behaviour therapy (with appropriate training)

Monitor for medical complications

Correct electrolytes and any deficiencies e.g. iron

Consider pharmacotherapy

Specialist referral (where appropriate) – with shared-care responsibility

**Usual investigations and associated complications**

Renal function and electrolytes (dehydration and hypokalaemia)

**Additional investigations in anorexia nervosa**

Full blood count (anaemia, leucopenia)

Magnesium and phosphate (low levels can precede re-feeding syndrome)

Liver function (raised liver enzymes)

Thyroid function ('sick euthyroid' syndrome)

Fasting glucose (hypoglycaemia)

Iron, vitamin $B_{12}$ and folate (may be deficient)

Electrocardiogram (risk of arrhythmia)

Bone densitometry (for osteopenia related to sustained hypogonadism)

### *Box 3* Screening questions for identifying eating disorders in primary care

**The SCOFF questionnaire** [8]

**S** – do you make yourself **S**ick because you feel uncomfortably full?

**C** – do you worry you have lost **C**ontrol over how much you have eaten?

**O** – have you recently lost more than 6.35 kilograms (**O**ne stone) in a three month period?

**F** – do you believe yourself to be **F**at when others say you are too thin?

**F** – would you say **F**ood dominates your life?

One point for every yes

A score of ≥2 indicates further questioning is warranted

A further two questions have been found to have a high sensitivity and specificity for bulimia (but are not diagnostic):

- Are you satisfied with your eating patterns? ('no')
- Do you ever eat in secret? ('yes')

disorders, a clearer understanding is emerging of what works and for whom. There is evidence from randomised controlled trials and prospective clinical studies that early and younger age at onset (under age 18 and within the first three years of illness) are together associated with good outcomes. The treatment of choice for this group is a family-based approach.[10] This therapy moves through three phases (Box 4) in which parental experience and expertise is engaged as a therapeutic tool.

In adults with anorexia nervosa and when family-based treatment is not possible or inappropriate, individual psychotherapy is the approach of choice. Cognitive behaviour therapy or other specialised individual psychotherapies (with the exception of interpersonal psychotherapy) have support from randomised controlled trials. An extended form of cognitive behaviour therapy[11] for bulimia nervosa has been developed and evaluated for use in all eating disorders (Box 4). It addresses the core eating behaviours and body image concerns and re-feeding. Complicating problems such as mood intolerance, low self-esteem, clinical perfectionism and interpersonal deficits are also considered.

In conjunction with psychotherapy, all patients need to be re-fed and monitored for medical complications. Re-feeding is the phase of gradual increase in food to promote weight regain and normalisation of eating behaviour. A dangerous reduction in serum electrolytes (phosphate, potassium and magnesium) can precipitate the re-feeding syndrome. This can cause arrhythmias, seizures and potentially death.

The majority of people are treated as outpatients with a collaborative approach. A dietitian provides essential expertise for meal planning and nutritional care in the re-feeding phase. Treatment goals include improved nutrition as one of the 'non-negotiables'.

When it is not possible to reverse weight loss or weight loss is rapid and severe and there may be medical and psychiatric complications, patients will require more intensive residential day or inpatient care. Children and adolescents (who may suffer growth retardation) and pregnant women are at particular risk. Compulsory treatment is now rare, but can be life saving. While a small number develop severe and enduring illness it is most important not to lose hope as improvements and even recovery can still occur.[12]

### *Pharmacotherapy* [13]

Antidepressants appear to offer little benefit for the dysphoria or depression associated with starvation. However, they are useful when there is comorbid major depression. There is insufficient evidence for the newer antipsychotics (for example quetiapine).[14] They are however used off-label in low doses in the re-feeding phase where it is thought they ameliorate psychological distress and anxiety. They should be withdrawn following weight regain and monitoring metabolic status is important as with any patient treated with antipsychotics.

*Box 4* **Psychological treatment approaches in eating disorders**

**Family-based treatment for anorexia nervosa** [10]

Parental empowerment to facilitate re-feeding the patient (including having a family meal)

Negotiating a new pattern of relationships

Establishing healthy relationships between the adolescent or young adult and the parents (with increased personal autonomy for the adolescent)

**Cognitive behaviour therapy**[11] **for anorexia nervosa, bulimia nervosa and binge eating**

Psycho-education and introduction to daily monitoring of relevant thoughts and behaviours

Prescribe 'normal' eating and prohibit dietary restriction

Gradual reintroduction of avoided foods into the diet

Cognitive restructuring of problematic beliefs

Problem solving

Relapse prevention strategies and addressing lapses

## Bulimia nervosa and binge eating disorder

Cognitive behavioural therapy[11] is the first-line treatment for bulimia nervosa (Box 4). It is also appropriate for binge eating disorder. In both disorders, it reduces binge eating and other eating symptoms and improves mood and general well-being. Additional modules, particularly the training in skills to regulate mood, improve outcomes in patients with additional psychological problems.[15]

When patients are overweight, increasing physical activity that is not compulsive but enjoyable and preferably sociable (for example tennis vs solitary gym exercises), and 'mindful' eating may be helpful in weight management. In treating comorbid obesity it is important to be cognisant that physical health and a healthy diet are not usually realised by any absolute weight, and may be found in people with a BMI range up to 30 (kg/m$^2$).

Inpatient admission is seldom required. Indications are pregnancy (as there is increased risk of spontaneous first trimester abortion in bulimia nervosa), severe symptoms (and failed outpatient care), and the presence of psychiatric complications such as suicidality.

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### *Pharmacotherapy* [13]

Selective serotonin reuptake inhibitors in high doses reduce binge eating and improve other symptoms in bulimia nervosa and binge eating disorder. The best evidence is for fluoxetine 60 mg daily.[16-18]

Antidepressants are also used to treat comorbid major depression when present. However, unlike extended cognitive behavioural therapy, maintenance of change is unclear and they are mostly used as an adjunct to psychotherapy. Effects on weight loss in binge eating disorder are mixed. In contrast topiramate may reduce binge eating and weight, but in randomised controlled trials the rate of adverse effects and discontinuation was high.[19]

## Conclusion

Eating disorders have moderate to high morbidity and increased mortality. However, many people with an eating disorder present late (if at all) for treatment. Early identification is associated with good outcomes, particularly for anorexia nervosa in children and adolescents and for bulimia nervosa and binge eating. Evidence-based treatments include family-based therapy for young people with anorexia nervosa, and a specific form of cognitive behavioural therapy with or without a selective serotonin reuptake inhibitor in bulimia nervosa and binge eating disorder. Optimal management should include coordinated care between primary and specialist care. ◀

*Professor Hay is deputy chair of the National Eating Disorders Collaboration. The views expressed in this article are entirely her own. There are no funding sources relevant to this article to declare.*

See also Eating disorders: the patient's perspective. www.australianprescriber.com/magazine/21/4/artid/277

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### SELF-TEST QUESTIONS

*True or false?*

3. Family-based therapy for adolescents with anorexia nervosa is the first-line treatment.
4. Fluoxetine can improve symptoms in bulimia nervosa.

*Answers on page 179*

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## The Butterfly Foundation

The Butterfly Foundation is a national organisation providing information and support for people with eating disorders. A phone line offers confidential counselling, as well as information on local support organisations across the country. Support is also available by email and one-on-one web chats.

The website contains useful factsheets about body image, anorexia and bulimia, and tips for recovery. The Butterfly Foundation's Twitter (@BFoundation) and Facebook sites are popular sources of information. Some financial relief is offered for those unable to afford treatment.

### Contact

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| National Support Line | 1800 334 673 (Mon–Fri 9am–5pm AEST) |
| Website | www.thebutterflyfoundation.org.au |
| Email | support@thebutterflyfoundation.org.au |

### See also

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| Eating Disorders Victoria | www.eatingdisorders.org.au |
| Eating Disorders Association Queensland | http://eda.org.au |