

Department of Social Protection

Eating Disorders

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1. Overview and Definition of Eating Disorders

1.1 Overview

In the last decade the significant morbidity and mortality that eating disorders cause has become more recognised in medical terms, and the subject of far greater public awareness. Eating disorders are a group of conditions which cause significant psychological, physical and social effects. They are often long term, chronic recurring conditions which have considerable short and long term effects on the health, relationships, employment, fertility and family life of affected individuals.

Eating disorders comprise of three main conditions:

- Anorexia Nervosa (and atypical presentations)
- Bulimia Nervosa (and atypical presentations)
- Binge Eating Disorder

Whilst Anorexia and Bulimia have been relatively well recognised over the last two decades, binge eating disorder has only recently been recognised as an eating disorder.

Anorexia and bulimia appear to be closely related, and there is a considerable overlap between these two eating disorders.

Obesity, although an increasingly common global problem for healthcare providers, does not have the same psychiatric connotations as the other problems which are the main focus of this protocol, and hence is not further discussed here.

1.2 Anorexia Nervosa

Anorexia nervosa sufferers have a preoccupation or intense fear of gaining weight, or an abnormal desire to achieve thinness. They refuse to maintain a minimum acceptable body weight and typically do not recognise (or deny) the adverse effects on health that the extreme weight loss or low bodyweight brings. Individuals with this condition often have a perceived body size and shape which is inconsistent with reality.

Individuals with this condition have a body mass index (BMI) below 17.5 kg/m² or 15% lower than the average expected weight for their age and height (for information on body mass index please see Appendix B). Anorexia Nervosa is not always diagnosed on weight loss alone; the condition is increasingly being recognised in young adolescent girls where there has not been an actual weight loss, but an expected weight gain in puberty has not occurred due to the anorexia, resulting in the individual becoming underweight without weight loss.

Most individuals who go on to develop anorexia initially have eating and dieting habits that are not concerning and may result in positive comments from family and

friends. As the condition develops the individual becomes more pre-occupied with dieting, eventually affecting all areas of their lives and causing concern to those around them. The preoccupation with weight loss can result in social isolation, educational and employment issues and have a considerable effect on the individuals' daily living activities.

Two sub-types of anorexia have been recognised:

- **Binge - purge** behaviour, where individuals have repeated episodes of uncontrolled eating, often followed by purging behaviour which involves self-induced vomiting or the misuse of laxatives, diuretics, or enemas. This type of behaviour becomes more frequent with chronicity of the condition and increasing age.
- **Restricting** behaviour, where individuals restrict calorie intake to a minimum, follow drastic diets and may exercise to excess without adjusting food intake to compensate.

In general, only a small number of individuals will seek treatment themselves. Most individuals with eating disorders are either prompted to seek treatment by family and friends, identified by teaching staff or within primary care settings by General Practitioners. Particularly with younger sufferers, individuals are inactive in seeking help and will often deny they have an issue or problem – this may be to the extent of refusing treatment.

1.2.1 Anorexia Nervosa - Diagnostic and Statistical Manual of Mental Disorders 4th Edition Text Revision (DSM-IV-TR) Classification

The DSM-IV-TR (American Psychiatric Association, 2000) classification for Anorexia Nervosa defines the condition as:

- Refusal to maintain body weight at or above a minimally normal weight for age and height (e.g., weight loss leading to maintenance of body weight less than 85% of that expected; or failure to make expected weight gain during period of growth, leading to body weight less than 85% of that expected).
- Intense fear of gaining weight or becoming fat, even though underweight.
- Disturbance in the way in which one's body weight or shape is experienced, undue influence of body weight or shape on self-evaluation, or denial of the seriousness of the current low body weight.
- In postmenarcheal females, amenorrhea, i.e., the absence of at least three consecutive menstrual cycles. (A woman is considered to have amenorrhea if her periods occur only following hormone, e.g., oestrogen, administration.)

Subtypes specify if the anorexia is of the binge-purge type, or restricting type.

1.2.2 Anorexia Nervosa - International Classification of Diseases; 10th Edition (ICD-10) Classification

The World Health Organisation (WHO, 2007) states Anorexia Nervosa can be diagnosed if the following symptoms exist:

- “Body weight is maintained at least 15% below that expected (either lost or never achieved). Prepubertal patients may show failure to make the expected weight gain during the period of growth.
- The weight loss is self-induced by avoidance of "fattening foods". One or more of the following may also be present: self-induced vomiting; self-induced purging; excessive exercise; use of appetite suppressants and/or diuretics.
- There is body-image distortion in the form of a specific psychopathology whereby a dread of fatness persists as an intrusive, overvalued idea and the patient imposes a low weight threshold on himself or herself.
- A widespread endocrine disorder involving the hypothalamic - pituitary - gonadal axis is manifest in women as amenorrhoea and in men as a loss of sexual interest and potency. (An apparent exception is the persistence of vaginal bleeds in anorexic women who are receiving replacement hormonal therapy, most commonly taken as a contraceptive pill.) There may also be elevated levels of growth hormone, raised levels of cortisol, changes in the peripheral metabolism of the thyroid hormone, and abnormalities of insulin secretion.
- If onset is prepubertal, the sequence of pubertal events is delayed or even arrested (growth ceases; in girls, the breasts do not develop and there is a primary amenorrhoea; in boys, the genitals remain juvenile). With recovery, puberty is often completed normally, but the menarche is late.”

1.2.3 Atypical Anorexia Nervosa

In some individuals, including those who are in the process of recovering from anorexia nervosa, the clinical picture may point towards a diagnosis of anorexia but the individual may not have all of the symptoms that are required by the diagnostic classification for the disorder. For instance, an individual may have a weight which is slightly above the BMI limit of 17.5 kg/m² or have extreme weight loss but have continued to menstruate. Individuals who have all symptoms but to a very mild extent may also be described as having atypical anorexia.

This diagnosis excludes conditions where a psychiatric condition is the reason for the weight loss.

1.3 Bulimia Nervosa

Bulimia Nervosa was first described by the psychiatrist Russell in 1979. The core feature of bulimia nervosa is a preoccupation with weight loss accompanied by

periods of uncontrolled binge eating and compensatory vomiting and / or purging, fasting or excessive exercise. Laxatives, diuretics, thyroxine or amphetamines are commonly misused. There are associated overvalued ideas concerning shape and weight of the type seen in anorexia nervosa.

Individuals who have bulimia are often extremely secretive regarding their eating habits. As individuals may be of normal weight the condition is often undetected by family and friends until the consequences become extreme. Individuals who develop bulimia have often had past episodes of anorexia.

Evidence suggests that individuals who have bulimia will often have co-existing psychiatric disorder; with studies in the United States suggesting nearly all individuals with the condition had an additional disorder such as mood disorder, anxiety, depression, impulse control problems or substance abuse issues (Hudson, 2007).

1.3.1 Bulimia Nervosa - Diagnostic and Statistical Manual of Mental Disorders 4th Edition Text Revision (DSM-IV-TR) Classification

The DSM-IV-TR (American Psychiatric Association, 2000) classification for Bulimia Nervosa defines the condition as:

- Recurrent episodes of binge eating, where episodes of binge eating are characterised by both of the following:
 - 1) eating, in a discrete period of time (e.g., within any 2-hour period), an amount of food that is definitely larger than most people would eat during a similar period of time and under similar circumstances
 - 2) a sense of lack of control over eating during the episode (e.g., a feeling that one cannot stop eating or control what or how much one is eating)
- Recurrent inappropriate compensatory behaviour in order to prevent weight gain, such as self-induced vomiting; misuse of laxatives, diuretics, enemas, or other medications; fasting; or excessive exercise.
- The binge eating and inappropriate compensatory behaviours both occur, on average, at least twice a week for 3 months.
- Self-evaluation is unduly influenced by body shape and weight.
- The disturbance does not occur exclusively during episodes of Anorexia Nervosa.

The DSM-IV-TR specifies two types of bulimia:

Purging Type: during the current episode of Bulimia Nervosa, the person has regularly engaged in self-induced vomiting or the misuse of laxatives, diuretics, or enemas

Non-purging Type: during the current episode of Bulimia Nervosa, the person has

used other inappropriate compensatory behaviours, such as fasting or excessive exercise, but has not regularly engaged in self-induced vomiting or the misuse of laxatives, diuretics, or enemas

NOTE: this classification differs from the ICD-10 classification in that it details Non-purging behaviour as a diagnostic feature, where ICD-10 specifies that purging behaviour is a feature of the diagnosis.

1.3.2 Bulimia Nervosa - International Classification of Diseases; 10th Edition (ICD-10) Classification

The World Health Organisation (WHO, 2007) states Anorexia Nervosa can be diagnosed if the following symptoms exist:

- (a) "There is a persistent preoccupation with eating, and an irresistible craving for food; the patient succumbs to episodes of overeating in which large amounts of food are consumed in short periods of time.
- (b) The patient attempts to counteract the "fattening" effects of food by one or more of the following: self-induced vomiting; purgative abuse, alternating periods of starvation; use of drugs such as appetite suppressants, thyroid preparations or diuretics. When bulimia occurs in diabetic patients they may choose to neglect their insulin treatment.
- (c) The psychopathology consists of a morbid dread of fatness and the patient sets herself or himself a sharply defined weight threshold, well below the premorbid weight that constitutes the optimum or healthy weight in the opinion of the physician. There is often, but not always, a history of an earlier episode of anorexia nervosa, the interval between the two disorders ranging from a few months to several years. This earlier episode may have been fully expressed, or may have assumed a minor cryptic form with a moderate loss of weight and/or a transient phase of amenorrhoea."

1.3.3 Atypical Bulimia Nervosa

This diagnosis is appropriate where individuals may have a clinical picture which points towards a diagnosis of bulimia but the individual may not have all of the symptoms that are required by the diagnostic classification for the disorder. Typically this is an individual who is of normal or even excessive weight who attempts to control their weight by following periods of excessive eating with some form of purgative behaviour.

1.4 Binge Eating Disorder

This disorder is comparatively newly recognised, and currently does not exist as a condition in either the DSM-IV-TR or ICD-10 classification systems; although the DSM-IV-TR does define this condition as a research category (NCCMH, 2004). There are similarities with the ICD-10 code for 'Overeating associated with other psychiatric disturbance' (F50.4) (WHO, 2007).

Individuals who have binge eating disorder have three or more of the following:

- Eating much more rapidly than normal
- Eating until feeling uncomfortably full
- Eating large amounts of food when not physically hungry
- Eating alone through embarrassment at the amount one is eating
- Feeling disgust or extreme guilt after overeating.

Individuals can be very distressed and embarrassed by their behaviour and can become consequently socially isolated.

There are increasing reports of significant morbidity with this condition, due to excessive and rapid weight gain resulting in obesity issues and complications.

Onset of the condition is typically later than in other conditions, during the late teenage to early 20s, however the condition may not be detected until an individual is in their 40s or above and has become significantly obese.

1.4.1 Binge Eating Disorder - Diagnostic and Statistical Manual of Mental Disorders 4th Edition Text Revision (DSM-IV-TR) Classification

DSM-IV-TR contains diagnostic criteria for binge-eating disorder within the Eating Disorder Not Otherwise Specified (EDNOS) Category (Knauss and Schofield, 2009), one of a number of conditions which can be described within this category that do not meet the diagnostic criteria for the disorders detailed above.

The diagnostic criteria for this condition, according to the DSM-IV-TR (American Psychiatric Association, 2000) are:

- Recurrent episodes of binge eating. An episode of binge eating is characterized by:
 - Eating, in a discrete period of time (e.g., within any 2-hour period), an amount of food that is larger than most people would eat during a similar period of time and under similar circumstances
 - A sense of lack of control over eating during the episode (e.g., a feeling that one cannot stop eating or control what or how much one is eating).
- The binge-eating episodes are associated with three (or more) of the following:
 - Eating much more rapidly than normal
 - Eating until feeling uncomfortably full
 - Eating large amounts of food when not feeling physically hungry

- Eating alone because of being embarrassed by how much one is eating
 - Feeling disgusted with oneself, depressed, or very guilty after overeating.
- Marked distress regarding binge-eating is present.
 - The binge eating occurs, on average, at least 2 days a week for 6 months.
 - The binge eating is not associated with the regular use of inappropriate compensatory behaviours (e.g., purging, fasting, excessive exercise) and does not occur exclusively during the course of anorexia nervosa or bulimia nervosa.

2. Epidemiology

Information regarding the prevalence of eating disorders in Ireland is limited, although some figures are available.

Figures from the Health Research Board in 2007 estimate that there are 20,000 people in Ireland with eating disorders, with 400 new cases and 80 deaths annually (HRB, 2007), however the Report of the Expert Group on Mental Health Policy notes that an upper prevalence rate of 5,000 cases per 100,000 of population has been estimated for all eating disorders – which would translate to a figure as high as 200,000 cases in Ireland (Expert Group on Mental Health Policy, 2006).

The vast majority of individuals with eating disorders are female, in the 15-40 age groups.

147 admissions to psychiatric hospitals in Ireland in 2007 were for eating disorders – this is estimated to reflect only a small percentage of individuals who are actually affected, as statistics which reflect either inpatient numbers or patients who have sought psychiatric help have been shown to reflect only low patient numbers (Russell, 2009). 90 % of admissions are in the 15-24 year age group (Expert Group on Mental Health Policy, 2006).

Anorexia Nervosa

- US statistical prevalence in 2007 for Anorexia nervosa is 0.9% among women, 0.3% among men
- In the UK the incidence of anorexia nervosa is 19 per 100,000 per year in females, and 2 per 100,000 per year in males.
- Female teenagers (aged between 13 and 19 years) showed the highest rates at 51 cases per 100,000 per year.
- The mean age of onset is 16–17 years.
- Traditionally thought to be a condition which was more common in white ethnic groups – now recognised across a range of cultures (NCCMH, 2004)
- More common in individuals from certain backgrounds – acting, dance, modelling

Bulimia Nervosa

- US statistics indicate a prevalence rate for Bulimia nervosa of 1.5% among women, 0.5% among men
- Bulimia nervosa is more common in females (accounting for 90% of cases), affecting between 0.5% and 1.0% of young women
- Average onset is around 18 years of age. The disorder rarely occurs in pre-teenage children.

Binge Eating Disorder

- US estimates indicate a prevalence rate for Binge eating disorder of 3.5% among women, 2.0% among men
- UK estimates are of prevalence rates between 1% and 2%, depending on the definition for diagnosis of binge eating which is used.
- Typical onset for binge eating is adolescence to early 20's but the condition may not present until an individual is in their 40s.
- There is a roughly equal gender distribution for this disorder.

(NHS Institute for Innovation and Improvement, 2005; Expert Group on Mental Health Policy, 2006; Hudson, 2007)

3. Aetiology

3.1 Aetiology of Anorexia

A fundamental cause of anorexia has not been identified (Russell, 2009), however, there is a wide range of psychological, social and physical factors that are thought to have an impact on the predisposition of an individual in developing Anorexia, and the progression of the condition once it has arisen. In most cases it is probable that there will be a combination of causes.

- **Cultural Factors:** Both anorexia and bulimia are prevalent in societies where the stereotypical picture of physical attractiveness equates beauty with thinness. Adolescents are particularly vulnerable to such pressures through the impact of peer pressure and media advertising. Eating disorders are also more common in adolescents and young people with chronic illness and physical disability (Gross et al, 2000).
- **Genetic Factors:** Twin studies have estimated there to be around a 60% chance of inheriting anorexia, with female siblings of individuals with anorexia being 11 times more likely to develop the disorder than the general population. In addition, female relatives of anorexia studies were more likely to develop bulimia than the general population - indicating that there is a probable inherited female vulnerability to developing eating disorders (NCCMH, 2009; Lock and Fitzpatrick, 2009).
- **Stress and Life Events, Family Environment:** severe life stress is involved in the onset of 70% of the cases of anorexia, usually involving family relationships. There are raised rates of dieting, overeating and concern about shape and weight in the families of anorexics compared with the general population. Other family risk factors include relatives with affective disorders, substance abuse and alcohol abuse.
- **Hypothalamic Dysfunction:** There are marked changes in the functioning of the endocrine system in anorexia. These changes are generally secondary to weight loss, but the early onset of amenorrhoea in some women suggests that some changes may be primary. Serotonin plays an important role in the loss of appetite and limitation of food intake. This may be the basis for the reported success of Selective Serotonin Reuptake Inhibitors (SSRIs) in the treatment of some eating disorders.
- **Psychological Issues:** There are often abnormal relationships found in the families of sufferers of anorexia nervosa. The families may be unusually close knit or have a raised incidence of parental problems. It has been suggested that the development of anorexia may serve to prevent dissent within the family. The adolescent may feel shy or lacking in confidence and the development of anorexia is a way of coping with pressures by creating an illusion of being in control.
- **Psychological comorbidity** - individuals with affective disorder or obsessive compulsive disorder are at greater risk of developing anorexia.

- **Physical Issues** - including a history of premorbid obesity and difficulties with feeding in infancy. Early onset of puberty is also thought to play a part.

One recent study (Tozzi et al., 2003), suggested that those with anorexia nervosa perceived dysfunctional families, dieting behaviour and stressful life events as the main causes of their condition.

(NCCMH, 2009; Lock and Fitzpatrick, 2009)

3.2 Aetiology of Bulimia

There is a considerable overlap in the aetiological factors for anorexia and bulimia nervosa. Bulimia appears to be the result of exposure to general risk factors of psychological disorders and to risk factors for dieting.

Risk factors for bulimia include:

- Demographic factors – being female, adolescent and residing in a developed society
- A family history of psychiatric disorder especially depression
- Disturbed family dynamics, adverse childhood experiences
- Depression
- Alcohol and / or substance abuse both in the individual and in close relatives
- Low self esteem and/or perfectionism
- Obesity and/or parental obesity
- Parental weight/shape concern or exposure to a social environment that encourages dieting (e.g. having a medical condition where there is a concern regarding diet such as diabetes, being involved in a occupation where there is a focus on thinness such as ballet)
- Early menarche in people with the eating disorder

There is an increased incidence of depression, alcohol and / or substance abuse, and bulimia in first degree relatives of patients with bulimia.

(NCCMH, 2009; Lock and Fitzpatrick, 2009)

3.3 Aetiology of Binge Eating Disorder

As a newly recognised condition, there is not a significant literature base regarding the aetiology of binge eating disorders. There are two factors which are thought to be key in the development of binge eating disorders:

- Biological – being overweight or obese, family members who are obese
- Mood disorders – depression, anxiety, obsessive compulsive disorders.

4. Diagnosis

Individuals with eating disorders typically do not recognise they have a problem and are reluctant or even refuse to seek help. They may be encouraged to contact services by concerned families, friends or other professional such as a schoolteacher, but it is typical that an eating disorder may be identified by a primary care professional such as a GP when the patient attends for another reason. Studies indicate that individuals with eating disorders are more likely to visit their general practitioner than the average person without an eating disorder (Ogg et al, 1997). These visits tend to be for a range of issues including psychological, gastrointestinal or issues with fertility or menstruation which arise from the eating disorder but may be unrecognised or denied in cause by the individual.

Where eating disorders may be suspected, primary care professionals may consider it appropriate to initially screen individuals asking females between the age of 16 to 35 questions regarding problems with eating, controlling their eating, binge eating or if they ever make themselves sick or use laxatives to control their weight (Fairbank, 2009).

[The sources for the following sections are: NCCMH, 2004; NHS Institute for Innovation and Improvement; 2005; Hay and Bacaltchuk, 2008; Russell, 2009; Fairburn et al; 2009; Lock and Fitzpatrick, 2009;]

Note: Information regarding Body Mass Index (BMI) scales is included in Appendix B.

4.1 Clinical Features of Anorexia Nervosa

Anorexia is characterised by:

- Deliberate weight loss with a BMI of 17.5 or less or 15% less than expected body weight for age and height
- A distorted body image
- A fear of fatness
- Amenorrhoea.

Associated clinical features include

(a) Physical Symptoms: Individuals with Anorexia may present with a range of non-specific physical symptoms, which can include:

- Abdominal pain
- Amenorrhoea
- Bloating

- Constipation
- Cold intolerance
- Lanugo hair on body, other hair or skin changes
- Muscle weakness
- Anaemia
- Osteoporosis
- Bradycardia
- Light headedness
- ☐☐Hypotension

(b) Psychological Features

- Denial of the seriousness of the condition or weight loss
- Altered perception of body image or size, preoccupation with body shape, size or weight
- Fear of gaining weight or becoming obese despite being underweight
- Depressive symptoms
- Perfectionist traits
- Fear of sexuality
- Social isolation
- Preoccupation with food (e.g. may enjoy preparing elaborate meals for others and yet avoid eating in company)
- Hyperactivity (e.g. vigorous exercise to lose weight)
- Possible laxative or amphetamine abuse

(c) Endocrine Abnormalities:

- ↑ growth hormone
- ↑ cortisol
- ↓ gonadotrophin
- ↓ T3.

Medical complications occur commonly, and can be disabling or life-threatening in nature.

4.2 Clinical Features of Bulimia Nervosa

An individual who presents with bulimia is more likely to be older than individuals presenting with anorexia. In addition, as secrecy is such a strong element in bulimia, they are more likely to present alone, rather than being encouraged to attend by concerned relatives or friends. There is an average delay of 5 years between onset of the condition and presentation to clinical services (Fairbank et al, 2009).

Bulimia nervosa is characterised by:

- Body weight maintained above a BMI of 17.5 or more or at or above a normal expected body weight for age or height.
- Episodes of binge eating
- Compensatory behaviour
 - Self-induced vomiting, fasting, purging
 - Misuse of laxatives, diuretics, thyroxine, or amphetamines
- Excessive exercise
- Fear of fatness.

There is a high incidence of associated depression (about 35-40%) and obsessive-compulsive symptoms (22%). There may be a history of previous anorexia nervosa. There is also a raised rate of substance and alcohol use.

Patients with bulimia are usually of normal weight or slightly overweight, and may present with requests to aid weight loss rather than recognition of an issue with bulimia.

Individuals with bulimia may report more physical problems on presentation, than those with anorexia. Mood disturbances such as depression, anxiety or tension are also common, as are symptoms of self-harming behaviour such as cutting or scratching.

Associated clinical features include:

(a) Physical Symptoms :

- Abdominal Pain
- Major weight fluctuations
- Poor dental hygiene with pitting and acid erosion (particularly to the

lingual surfaces of the front teeth)

- Arrhythmias (due to potassium and calcium loss, less common than laboratory results may indicate)
- Cardiomyopathy (ippecacuanha abuse)
- Pancreatitis
- Stomach dilatation
- Gastric rupture
- Severe constipation, or Diarrhoea
- Megacolon
- Laxative abuse
- Carotenaemia (excessive ingestion of “health foods”)
- Muscle weakness (potassium loss)
- Oesophagitis, Oesophageal tears.
- Severe fatigue or lethargy
- Sore throat
- Rectal prolapse
- Swollen hands and feet
- Menstrual abnormalities, amenorrhea (25% of patients)

Rarely, renal damage, tetany and epileptic fits may occur.

(b) Psychological Features:

- Episodes of binge eating and purging associated with extreme guilt and shame.
- Strong sense of lack of control over binge eating
- Extreme fear of fatness, with a sharply defined weight threshold set by the individual.
- Preoccupation with food (shopping, eating, and purging).

4.3 Physical Examination

A physical examination should be performed to exclude differential diagnoses and to

determine the prevention and severity of emaciation. This is to establish the severity of the disease rather than to aid diagnosis.

In bulimia, the signs such as enlarged salivary glands, erosion of dental enamel, calloused fingers (Russell's sign) and oedema may be noted.

4.4 Investigations

Laboratory investigations to confirm a provisional diagnosis of eating disorders are not usually required, as most investigations return normal results even where quite severe eating disorders are present. Investigations may be useful to exclude differential diagnoses. There is an exception to this in Bulimia, if fluid or electrolyte imbalances are suspected - where about 10% of individuals will have some form of abnormalities such as dehydration, hypokalaemia, hypochloreaemia or alkalosis.

4.5 Screening Tests for Eating Disorders

There are a number of screening tests to assess eating disorders. The standard screening test (Fairburn, 2009) is the Eating Disorder Examination (Fairburn and Cooper, 1993). This is a 36 point questionnaire however, so may not be suitable for use as a routine screening tool. There are a number of self-reporting questionnaires available such as the Eating Disorder Inventory (Garner, 1991) and the self-report version of the Eating Disorder Examination (Fairburn, 1994), but their use may be compromised by the fact that individuals often do not acknowledge the existence of, or extent of, an eating disorder.

5. Differential Diagnosis and Comorbidity

5.1 Differential Diagnosis for Eating Disorders

Differential diagnoses for anorexia, bulimia and binge eating include:

- **Organic causes** of low weight (not usually associated with abnormal attitudes to weight or eating):
 - Endocrine: diabetes, Addison's disease, hyperthyroidism
 - Autoimmune disease
 - Chronic infections such as AIDS or TB
 - Malignancy
 - Malabsorption / gastrointestinal diseases such as Crohn's disease, coeliac disease, irritable bowel syndrome
- **Psychiatric causes** of low weight:
 - Depression (which often occurs in anorexia nervosa, and bulimic patients often experience depressive symptoms)
 - Psychotic disorders (rare)
 - Personality disorders
 - Obsessive compulsive disorders
 - Substance and alcohol abuse.

There may be a dual diagnosis involvement.

- **Causes of Amenorrhea:** Pregnancy; Primary ovarian failure; Polycystic ovary syndrome
- Hypothalamic or pituitary tumours
- Rare differential diagnoses for bulimia are Kleine-Levin (which has associated hypersomnia) and Kluver-Bucy (associated hypersexuality) syndromes.
- Diabetic women with bulimia may use their diabetes to lose weight.

5.2 Comorbidity

5.2.1 Psychiatric comorbidity

Psychiatric comorbidity is common. Conditions include:

- Depression
- Anxiety disorders, tension
- Bi-polar disorder
- Obsessive compulsive disorder
- Alcohol or substance abuse
- Self harming behaviour

5.2.2 Medical Comorbidity

Osteoporosis

Another problem which may occur as a result of eating disorders is the development of osteopenia and osteoporosis which is a long-term effect of malnutrition. Bone density will improve as eating disorders are treated, but will increase in severity in untreated eating disorders. Effects such as increased fracture rate and long-term disability such as pain, kyphosis, and loss of height can appear as soon as a year after the onset of anorexia. Treatments such as oestrogen therapy, mineral and vitamin supplements have been tried but not evaluated as yet.

Diabetes

There was some thought that there was an increased incidence in individuals with diabetes, however this has been disproved (Russell, 2009). In individuals who do develop eating disorders who have diabetes, careful management is required due to the risk of retinal neuropathy.

6. Treatment

6.1 Treatment Options for Eating Disorders

Both within the Ireland and the United Kingdom, treatment provision for eating disorders is variable, with studies suggesting that only a fraction of individuals with eating disorders ever receive specialised help for their disorder (NCCMH, 2004). The availability of specialist age-appropriate services is even more uncommon, and individuals may therefore receive treatment from general psychiatric services where specific skill sets for dealing with eating disorders are not readily available, meaning that individuals may spend considerable amounts of time being in contact with services without effectively being treated (NCCMH, 2004). This situation is further compounded by the reticence of many individuals with eating disorders to seek treatment at all, and the stigma involved in seeking help from mental health professionals.

A Vision for Change (Expert Group on Mental Health Policy, 2006) recognised that the provision of mental health services for eating disorders was poor for both adults and children in Ireland. The recommendations which were made included increasing the availability of inpatient specialist beds and locating these regionally, with a tertiary referral service available. (There were only 3 public and a small number of private specialist beds are available Dublin at the time of the report). A specialist multidisciplinary team for eating disorders is also to be provided within each health region. Reports indicate these services were starting to be available in late 2008 (Irish Times, 2008).

6.2 Management of Anorexia Nervosa

Sufferers of anorexia, in common with patients with other eating disorders, are often very reluctant to accept that they are ill, and have a realistic fear that the main aim of the treatment will be for them to gain weight. The first goal is, therefore, the establishment of a good relationship between doctor and patient in order to engage the patient in treatment. Gaining their agreement and providing an encouraging motivational relationship may provide help to ensure the individual is as compliant as possible to the treatment plan (NCCMH, 2004).

The aim of treatment is the return to a healthy weight (a BMI above 20), abolition of binges and weight control measures that threaten health, and to minimise or abolish the effect of the disorder on social functioning and lifestyle. Treatment aims should also be to reduce any psychiatric comorbidities such as depression or obsessive compulsive behaviour.

It is helpful to work towards a realistic target weight that is agreed by the patient.

6.2.1 Treatment Considerations for Anorexia Nervosa

Despite a number of studies, there is not a firm evidence base as to the best treatment plan for anorexia nervosa, nor the best form of psychotherapy which

should be used. The research which does exist is largely methodologically inconsistent (NCCMH, 2004; Russell, 2009). Agreement of treatment plan, care setting and types of psychotherapy which should be used will therefore be a decision based on the individual patient's needs.

It must be remembered that the patient suffering from anorexia nervosa sees the low body weight as a solution to her / his problems, whereas the public usually views the weight loss itself as the problem. Evidence suggests that early intervention is key in avoiding long term consequences. Although initial assessment and intervention may be carried out in primary care, individuals diagnosed with eating disorders should be referred to secondary or tertiary specialist services wherever possible.

The majority of individuals will be managed on an outpatient basis. For any treatment to succeed, the underlying problems need to be addressed with psychological measures. Methods of psychological treatment include:

- Cognitive behavioural therapy (CBT)
- Cognitive analytical therapy (CAT)
- Interpersonal Therapy
- Focal psychodynamic therapy
- Family therapy (where appropriate)

Psychological therapy should be provided for at least 6 months, accompanied by physical monitoring.

Family therapy is generally most valuable in younger and less chronically ill patients.

For the minority of individuals who require inpatient care (due to severity of condition, non-compliance or lack of response to outpatient care) treatment regimes involve re-feeding accompanied by psychological therapies which focus on attitudes to eating and weight. Inpatient treatment is recommended for individuals who have severe weight loss (i.e. BMI <13 kg/m² or weight loss > than 20%) as this requires specialist advice – individuals who weigh less than 85% of their expected weight for their height and age are unlikely to regain weight unless they participate in a highly structured programme of treatment (American Psychiatric Association, 2006) .

Outpatient care following admission should include psychological treatments for at least one year

6.2.2 Pharmacotherapy Considerations for Anorexia Nervosa

There is limited evidence to support the role of drug treatment for anorexia nervosa, and medication should therefore not be used as the only therapeutic approach. Care must be taken with medication side effects, particularly those which have cardiac side effects (NCCMH, 2009).

Research has not proven the efficacy of treatment with antihistamines, antipsychotics or tricyclic antidepressants (amitriptyline, clomipramine) and selective serotonin reuptake inhibitors such as fluoxetine or citalopram (NHS Institute for Innovation and Improvement, 2005). Generally, antidepressants are reserved for the treatment of any associated depression, however care should be taken when using antidepressants for comorbid psychiatric conditions as these conditions may well improve with weight gain alone and not require pharmacological therapies. Improvements have been reported with domperidone and cisapride in patients with delayed gastric emptying.

Many patients may benefit from self-help groups or occupational therapy, and advice and information/literature for self help groups should always be provided.

6.3 Management of Bulimia Nervosa

The treatment follows the same general principles as for anorexia nervosa; these are the establishment of a regular eating programme to maintain a healthy weight, and the abolition of binge eating and vomiting.

The management of bulimia is usually easier than that of anorexia nervosa as the patient is likely to wish to recover, and a good working relationship can often be established. The starting BMI is usually above 20 so there is no need for weight restoration.

The client's physical and psychological condition is assessed in the same way as for anorexia, and electrolyte disturbances may need to be corrected.

6.3.1 Treatment Considerations for Bulimia Nervosa

Initial recommended therapy is by encouraging the individual to follow an evidence-based self-help programme. This should be accompanied by the most extensively studied psychological treatment – cognitive behaviour therapy – which should be offered in a 15-20 session course over a period of as many weeks. Should individuals decline these therapies, other treatment lines may be considered such as interpersonal psychotherapy but evidence suggests that these treatments may require a more substantial amount of time to be effective.

Inpatient treatment is rarely indicated unless depression is a major factor (when suicide may be a real danger). A metabolic crisis may precipitate an admission, as may renal failure, arrhythmia or oesophageal tears.

6.3.2 Pharmacotherapy Considerations for Bulimia Nervosa

Some anti-depressants have an independent anti-bulimic effect, with SSRIs (especially fluoxetine in doses up to 60 mg a day) recommended as the best choice in terms of acceptability, tolerability and effectiveness in reducing symptoms (NCCMH, 2009). The drug treatment needs to be maintained for a prolonged period of time – maybe several years.

No other drugs are recommended for the treatment of Bulimia (NCCMH, 2009).

Patients with bulimia have a high propensity for addiction and should not be given tranquillisers.

6.4 Management of Binge Eating Disorder

6.4.1 Treatment Considerations for Binge Eating Disorder

As a first line treatment the individual should be encouraged to follow an evidence based self-help programme. This may be effective alone as an intervention for a number of individuals, however the majority of patients will also require cognitive behavioural therapy. There are forms of this therapy available which have been specifically adapted for treatment of binge eating disorders (CBT-BED) (NCCMH, 2009).

Interpersonal psychotherapy has also been shown to be equally as effective as CBT, but as with bulimia nervosa, takes 4-8 months longer than CBT to be effective.

Consideration should also be given to providing psychotherapy interventions focussing on obesity management where appropriate.

6.4.2 Pharmacotherapy Considerations for Binge Eating Disorders

For a small number of individuals, control of binge eating disorders may be achieved using SSRI antidepressant medication.

7. Prognosis and Complications

7.1 Outcome

The variability in presentation of eating disorders and the complexity of the disorders themselves results in difficulties in predicting overall outcome. Outcome predictions are further affected by the high number of individuals with these conditions who do not seek medical help.

In general, poorer outcomes are seen in individuals who develop eating disorders at very early ages, with higher mortality seen in individuals who develop disorders in their 20s or have extremely low body weights.

Approximate outcome statistics are:

- One third will become completely free of the disorder within 5 years
- One third will show significant improvement
- One third will have no improvement or will have deteriorated.

Mortality rates associated with eating disorders are high, particularly for anorexia where estimates average 5% but can be as high as 20%.

Anorexia

Long term studies indicate a mortality rate for individuals with anorexia nervosa of ten times more than the general population. Mortality rates are three times higher than those with other psychiatric illnesses.

In general, about 65% have a good outcome and maintain a normal weight. 20% remain moderately underweight long term, and 15% have a poor outcome with a persistently very low BMI.

Poor outcome is associated with very early or late onset of the illness, a chronic course, severe weight loss, co-existing anorexia and bulimia, and persisting relationship difficulties. Men generally have a worse prognosis.

Mortality has been reported as up to 5% over 4-5 years, but as high as 10% in the long term. Just over two-thirds of deaths are due to the effects of starvation, and one-third are by suicide.

Outcome studies of morbidity are hampered by high failure-to-trace rates and the increased likelihood of non-cooperation in those still suffering from an eating disorder. There is still a high continued incidence of depressive (38%) and obsessive-compulsive (22%) symptoms in the context of continued eating disorder symptoms.

Bulimia

There is little evidence regarding prognostic outcome factors for bulimia. Many individuals do not seek treatment. Where they do, it is thought that roughly half will become symptom free between 2 and 10 years following treatment. 30% of individuals will continue to show symptoms following treatment, either developing a pattern of remission and relapse, or developing some symptoms of bulimia but not the full blown condition (atypical eating disorder).

Some studies of combined treatment with anti-depressants and intensive group psychotherapy have reported higher recovery rates, with 70% of individuals in full or partial remission from bulimia (Keel et al, 2002).

A good prognosis is associated with shorter illness duration, younger age of onset of the condition, higher socioeconomic group and early detection of the disorder. Poorer prognoses are associated with a history of alcohol or substance abuse, premorbid or parental obesity or coexisting psychiatric disorders.

[NCCHM, 2004; NHS Institute for Innovation and Improvement, 2005; Hay and Bacaltchuk 2008; Medical Guidelines, 2009; Russell, 2009; Fairburn et al, 2009;]

7.2 Complications

Medical complications include hormonal problems, malnutrition, irregular heart rhythms, seizures, muscle wasting, kidney problems, and advanced dental decay (particularly in bulimia).

Psychiatric complications include irritability, poor mental functioning, anxiety, depression, insomnia and suicide.

(MDGuidelines, 2009).

8. Information Gathering at the In Person Assessment

8.1 Physical assessment

Physical function is usually well preserved in patients with anorexia nervosa. However, medical complications are common and may give rise to symptoms such as fatigue, which will need to be addressed during the assessment. With increasing severity and chronicity, physical weakness and osteoporosis can intervene with the attendant loss of function.

The weight is more normal in bulimia, and physical function is almost always well preserved. The likelihood of physical incapacity increases with frequent bingeing and purging due to electrolyte imbalance as well as cardiac, renal and gastrointestinal complications.

Disturbance of bowel function and menstruation may not have significant consequences for functional ability, but provide useful corroborating evidence as to the severity of the condition. Constipation is very common with laxative abuse in bulimia. Amenorrhea is frequently reported by anorexic individuals who are underweight. Dental erosion is a significant finding in people with eating disorders because of its association with regular vomiting.

The presence of oedema, abdominal pain, myopathy and arrhythmia should be noted. Metabolic disturbances and cardiac conduction defects, whilst significant, will be difficult for disability analysts to detect and a high index of suspicion should be maintained.

8.2 Mental health assessment

Psychological problems are always found to a greater or lesser extent in anorexia and bulimia. Low mood is particularly common at low weights in anorexia, and suicidal ideation and behaviour can occur. In bulimia, suicidal attempts and self-mutilation can be significant features.

The increased frequency of mood disorders, personality disorder and substance abuse also affects the psychological welfare of a claimant with an eating disorder.

Specific difficulties of mental health function in anorexia and bulimia are likely to result in one or more of the following problems:

- Poor concentration
- Interference with leisure activities
- Agitation or confusion
- Alcohol on wakening

- Distress due to mood fluctuation
- Obsessiveness with physical appearance
- Interference with daily activities
- Difficulties in coping with changes to routine
- Disruptive behavioural problems
- Impairment of interaction with others
- Irritability
- Preference for being alone.

9. Analysis of Effect on Functional Ability

Eligibility to the Department of Social and Family Affairs various Illness-related schemes and the Activation Programme, is determined primarily by the degree of Ability/Disability and its expected duration.

The degree of Ability/Disability assessed, using the Indicators in 9.1, can be depicted on the Ability/Disability Profile illustrated in 9.2. In general, the degree of disability (and thus the level of interference with daily activities, including work) correlates with the severity and chronicity of the eating disorder. Many claimants presenting for disability assessment are not impaired in terms of physical function but commonly have symptoms such as fatigue and lethargy. It is important to separate the diagnosis from functional impairment, since many patients on treatment may function well with regard to daily activities.

9.1 Indicators of Ability/Disability

Normal

- Function is often well-preserved in individuals with eating disorders
- Maintaining social contacts and interests
- Typical day indicates normal levels of activity and energy

Mild

- Frequent episodes of self-induced vomiting or purging
- Excessive exercise
- Good insight into nature of eating disorder

Moderate

- Abuse of laxatives or diuretics
- Amphetamine abuse
- Amenorrhoea
- Physical weakness
- Lack of insight
- Poor dental hygiene with pitting and acid erosion
- Co-morbid physical complications
- Co-morbidity with drug or alcohol abuse or another psychiatric illness
- Attending psychiatric day hospital

Severe

- Severe weight loss with BMI <17
- Social isolation, little contact with family and friends

- Severe co-morbid psychiatric illness

Profound

- Suicidal ideation
- Hospital inpatient treatment
- Severe weakness requiring personal care from another person

9.2 Ability/Disability Profile

Indicate the degree to which the Claimant's condition has affected their ability in ALL of the following areas.					
	Normal	Mild	Moderate	Severe	Profound
Mental health/Behaviour	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Learning/Intelligence	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Consciousness/Seizures	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Balance/Co-ordination	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Vision	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Hearing	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Speech	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Continence	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Reaching	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Manual dexterity	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Lifting/Carrying	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Bending/Kneeling/Squatting	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Sitting	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Standing	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Climbing stairs/Ladders	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Walking	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

10. Summary of Scheme Criteria

Scheme eligibility criteria are maintained on the DSP website and are accessible from the following links:

- **Carer's Allowance**
http://www.welfare.ie/EN/OperationalGuidelines/Pages/carers_all.aspx
- **Carer's Benefit**
http://www.welfare.ie/EN/OperationalGuidelines/Pages/carers_ben.aspx
- **Disability Allowance**
<http://www.welfare.ie/EN/OperationalGuidelines/Pages/disall.aspx>
- **Disablement Benefit**
http://www.welfare.ie/EN/OperationalGuidelines/Pages/oib_disableb.aspx
- **Domiciliary Care Allowance**
<http://www.welfare.ie/EN/Schemes/IllnessDisabilityAndCaring/Carers/DomiciliaryCareAllowance/Pages/DomiciliaryCareAllowance.aspx>
- **Illness Benefit**
<http://www.welfare.ie/EN/OperationalGuidelines/Pages/illben.aspx>
- **Injury Benefit**
http://www.welfare.ie/EN/OperationalGuidelines/Pages/oib_injuryb.aspx
- **Invalidity Pension**
<http://www.welfare.ie/EN/OperationalGuidelines/Pages/invalidity.aspx>
- **Respite Care Grant**
<http://www.welfare.ie/EN/OperationalGuidelines/Pages/respitegrant.aspx>

Appendix A - Comparison of Anorexia Nervosa and Bulimia Nervosa

Anorexia Nervosa (AN)		Bulimia Nervosa (BN)
Fear of fatness, inflated body image, deliberate weight loss, amenorrhoea, BMI <17.5	Definition	Uncontrolled binge eating with purging/vomiting. Preoccupation with weight and shape
<p>Symptoms: Preoccupation with food bingeing, purging, vomiting, fear of sleep, poor concentration, feeling cold, social/sexual contact, depression</p> <p>Signs: Of AN – lanugo, bradycardia, hypotension, cold extremities, bruising Of vomiting – see Bulimia.</p>	Clinical Features	<p>Fluctuating (normal or excessive) weight</p> <p>Signs of vomiting: Hypokalaemia, alkalosis, pitted teeth, finger callus, parotid swelling</p> <p>Psychiatric: Depression, poor impulse control, substance abuse (including alcohol)</p>
<p>Onset at age 13-20 (85%) 95% female 1-2% prevalence in female students ↑ in higher social class</p>	Epidemiology	<p>Onset usually age 15 – 30 Prevalence 2-4% Sex ratio 50F:1M (now increasing in males)</p>
<p>Organic: Diabetes (which may co-exist with AN), Addison's, malabsorption, malignancy, (all unlikely)</p> <p>Psychotic: Schizophrenia (delusions re. food)</p>	Differential Diagnosis	<p>Psychiatric: Anorexia Nervosa</p> <p>Neurological: Kleine-Levin, Kluver-Bucy syndromes</p>
<p>Genetic – FH of eating disorders, OCD, obsessional personality. High conflict, enmeshed</p>	Aetiology	<p>Dietary restraint triggers binge/starve cycle. Female excess due to:</p>

family interaction Cultural and peer group pressure to diet.		Socio-cultural pressures. ↑ diet induced serotonin hypofunction
Hospital if: High suicide risk Physically frail Psychotherapy	Management	Psychotherapy SSRIs
Up to 10% mortality (Third suicide, two-thirds starvation) 20% chronicity, 20% full recovery	Prognosis	Poor if low BMI High frequency of purging.

Appendix B - Body Mass Index (BMI) Information

Body Mass Index (sometimes known as the [Quetelet](#) index) is a reference calculation of the relationship between an individual's height and weight, calculated using the following formula:

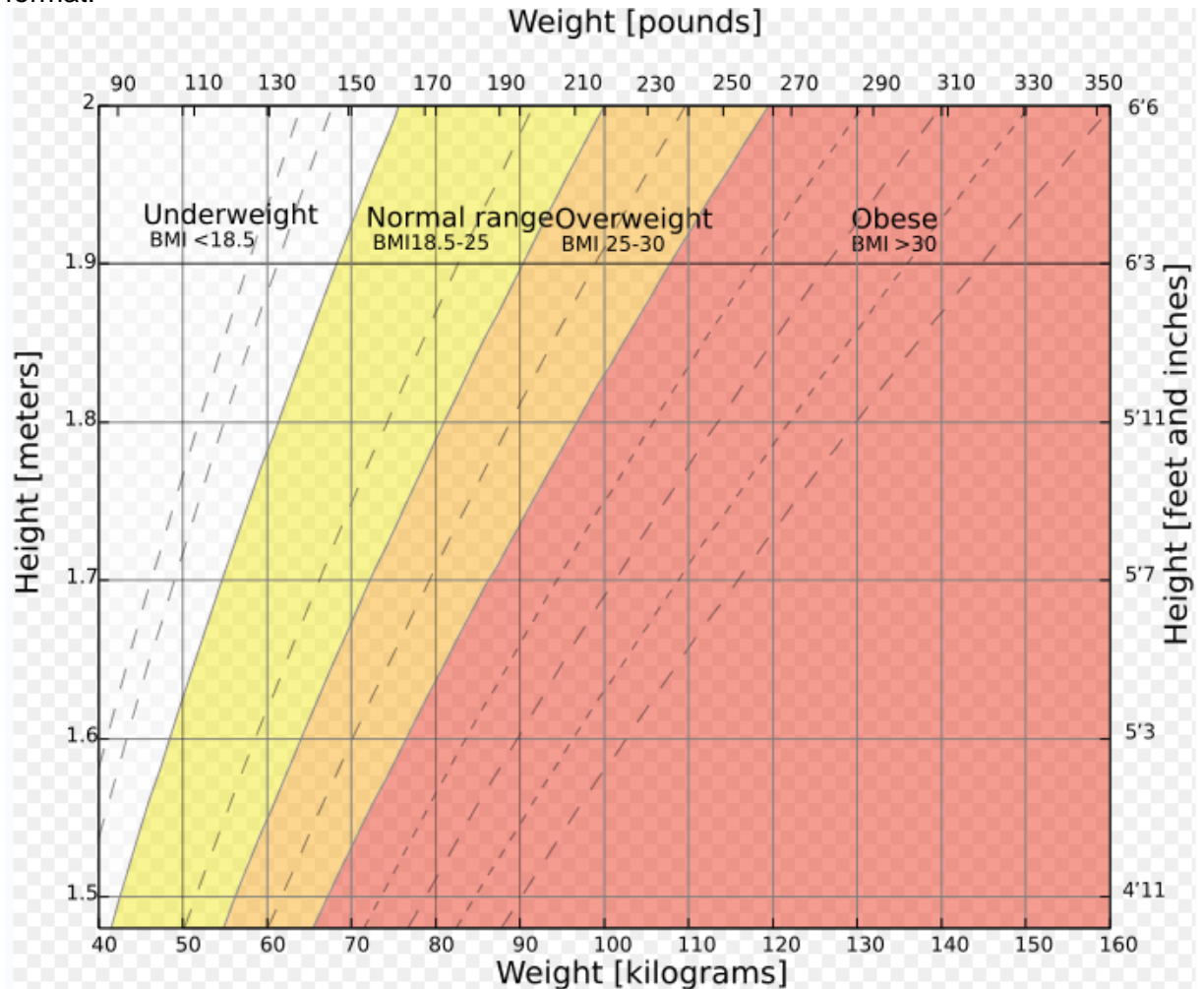
$$\text{Body Mass Index} = \frac{\text{Weight in Kilograms}}{(\text{Height in metres})^2}$$

(Kg/ M²)

The International Classification of Adult Underweight, Overweight and Obesity according to the World Health Organisation is shown below. Although these limits are accepted by many authorities, it should be noted that different classifications and boundaries between the categories exist, and BMI charts may not represent the same classification (for example, some charts used by the NHS in the UK use a BMI of <20 to classify an individual as underweight).

Classification	BMI(kg/m ²)
Underweight	<18.50
Severe thinness	<16.00
Moderate thinness	16.00 - 16.99
Mild thinness	17.00 - 18.49
Normal range	18.50 - 24.99
Overweight	≥25.00
Pre-obese	25.00 - 29.99
Obese	≥30.00
Obese class I	30.00 - 34.99
Obese class II	35.00 - 39.99
Obese class III	≥40.00

This information can be represented in a chart format:



[Source World Health Organisation, 2006; Wikipedia, 2009]

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