
EATING DISORDERS:

A RESOURCE FOR PRACTITIONERS
PROVIDING COMMUNITY BASED CARE

ADDITIONAL INFORMATION

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WOMEN'S HEALTH CLINIC
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women's
health clinic

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DSM-V Criteria

Anorexia Nervosa

- » Restriction of nutritional intake leading to a significantly low body weight that is less than minimally normal, or for children and adolescents, less than minimally expected. Typically, a low body weight is defined as a BMI <18.5.
- » Intense fear of gaining weight or becoming fat, or a persistent behaviour that interferes with weight gain.
- » Disturbance in the way one's body weight or shape are experienced or denial of the seriousness of the current low body weight.

Specify Type

Restricting type: Weight loss is accomplished through dieting, fasting, or excessive exercise. During the last three months, the client has not engaged in binge-eating or purging behaviour (self-induced vomiting or misuse of laxatives, diuretics, or enemas).

Binge-eating–purging type: During the last three months, the client has regularly engaged in binge-eating or purging behaviour (self-induced vomiting or the misuse of laxatives, diuretics, or enemas).

Specify if:

In partial remission: Full criteria for Anorexia Nervosa were previously met. The client no longer has a significantly low body weight, but still meets the other DSM-V criteria for Anorexia Nervosa.

In full remission: Full criteria for Anorexia Nervosa were previously met, and for a sustained period of time, the client no longer meets any of the diagnostic criteria.

Specify Severity:

Mild: BMI >17

Moderate: BMI 16-16.99

Severe: BMI 15-15.99

Extreme: BMI <15

Bulimia Nervosa

Recurrent episodes of binge eating 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 and a sense of lack of control over eating during the episode.

In addition to:

- » Recurrent inappropriate compensatory behaviour to prevent weight gain such as self-induced vomiting; or the use of laxatives, diuretics, enemas, fasting, or excessive exercise
- » Binge eating and compensatory behaviour both occur at least once a week for 3 months
- » Self evaluation is influenced by body shape and weight
- » The above behaviours do not occur exclusively during episodes of Anorexia Nervosa

Specify if:

In partial remission: Criteria for Bulimia Nervosa were previously met although some of the criteria have not been met for a sustained period of time.

In full remission: Full criteria for Bulimia Nervosa were previously met, and for a sustained period of time, the client no longer meets any of the diagnostic criteria.

Specify Severity:

Mild: 1-3 episodes of inappropriate compensatory behaviours per week

Moderate: 4-7 episodes of inappropriate compensatory behaviours per week

Severe: 8-13 episodes of inappropriate compensatory behaviours per week

Extreme: 14 or more episodes of inappropriate compensatory behaviours per week

Binge-Eating Disorder (BED)

Recurrent episodes of binge eating 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 and a sense of lack of control over eating during the episode.

The binge eating episodes are linked with three or more of the following:

- » Eating more rapidly than normal
- » Eating until feeling uncomfortable
- » Eating when not physically hungry
- » Eating alone due to embarrassment
- » Feeling disgusted, depressed, or guilty after the binge episode

In addition:

- » The client is distressed about the binge eating episodes
- » The binge eating occurs at least once a week for 3 months
- » The binge eating is not associated with any compensatory behaviour and does not occur in the context of an Anorexia or Bulimia diagnosis

Specify if:

In partial remission: Criteria for BED were previously met although the binge eating occurs less than one episode per week for a sustained period of time.

In full remission: Full criteria for BED were previously met, and for a sustained period of time, the client no longer meets any of the diagnostic criteria.

Specify Severity:

Mild: 1-3 episodes of binge eating per week

Moderate: 4-7 episodes of binge eating per week

Severe: 8-13 episodes of binge eating per week

Extreme: 14 or more episodes of binge eating per week

Other Specified Feeding or Eating Disorder

This category includes clients that engage in eating disorder behaviours that cause significant distress or impairment to their activities of daily living but do not meet full DSM criteria for previously discussed eating disorders. It is helpful for the practitioner to communicate the specific reason that the client does not meet full DSM criteria.

Examples include:

- » ***Atypical Anorexia Nervosa:*** All of the criteria for anorexia nervosa are met except that the client has a weight within an expected, or normal range.
- » ***Bulimia Nervosa of low frequency/limited duration:*** All of the criteria for bulimia nervosa are met except that the binge eating and inappropriate compensatory mechanisms occur less than once a week or for less than 3 months.
- » ***Binge Eating Disorder (BED) of low frequency or limited duration:*** All the criteria for BED are met, except that the binge eating occurs less than once weekly or for less than 3 months.
- » ***Purging Disorder:*** recurrent purging to influence weight or shape (vomiting, laxative use, or diuretics) in the absence of binge eating.
- » ***Night eating syndrome:*** recurrent episodes of night eating (waking from sleep) that are remembered and recalled by the client. The night eating caused distress and impairment in the client's functioning. The night eating is not suggestive of an underlying mental disorder, substance use, effect of a medication, or binge eating disorder.

General Goals of Eating Disorder Treatment

In caring for clients with eating disorders, a multidisciplinary team approach is recommended. Care providers should include a mental health professional, a medical practitioner, and a dietitian.

For clients who are below normal weight/BMI:

- » Weight restoration
- » Resumption of menses if experiencing amenorrhea
- » Monitoring and correction of electrolyte abnormalities
- » Prevention of osteoporosis
- » Monitoring and management of physical complications (renal, gastrointestinal, hepatic, psychological, endocrine, and cardiac)

For clients who purge or use laxatives:

- » Treat binge and purge behaviour (set goals for normalization)
- » Monitoring and management of physical complications as above; including esophageal tears, PUD, GERD, and gastritis
- » Monitoring and correction of electrolyte abnormalities
- » Prevention of dehydration secondary to fluid losses
- » Promotion of healthy dentition, recommend biyearly dental exams

For all clients with eating disorders regardless of behaviours or weight:

- » Develop rapport and a therapeutic alliance
- » Normalization of eating behaviours/develop healthy eating habits
- » Adequate caloric intake
- » Healthy thinking regarding body shape, size, and nutrition
- » Multidisciplinary approach/with facilitation of coordination of care among other providers and services if applicable
- » Identification, intervention, and support of co-morbid conditions including self harm behaviours, substance abuse, depression, anxiety, OCD, and personality disorders
- » Promotion of psychological health including cognitive and emotional function
- » Especially with adolescents, promote involvement of family/support system to maximize compliance with treatment and behaviour change
- » Provide support to the family
- » Enhance motivation to cooperate with treatment approach
- » Prevention of relapse

Follow-Up

Initially, and as a general starting point, our team recommends follow-up with your client in office weekly or biweekly. Depending on the client's behaviours and medical stability, medical visits can be gradually decreased based on your clinical discretion.

History Taking

We recommend taking a thorough history with special attention to:

- » Eating habits/dietary history/24 hour food recall
- » Presence and severity of food restriction
- » Binge/Purge behaviour
- » Use of laxatives, diuretics, or weight loss supplements
- » Chewing and spitting behaviours
- » Degree of exercise
- » Body image
- » Current weight
- » Highest and lowest documented weight
- » Current supports, presence of family dysfunction, or abuse
- » Previous eating disorder treatment/support
- » Treatment goals
- » Mental health status, presence of substance abuse, or self harm behaviours

General Symptom Review

A general review of systems is recommended at visits. Asking similar questions at each visit can assist clients in understanding that their eating disorder behaviour has negative consequences to both their physical and psychological health. Questions should be tailored to each individual client depending on their specific eating disorder behaviours.

- » Dizziness/Syncope
- » Fatigue
- » LMP
- » Peripheral Edema
- » Cold intolerance
- » GI status: presence of constipation, bloating, nausea, and abdominal pain
- » Cardiac complaints: chest pain or palpitations
- » Mental Health Status +/- suicidal ideation if applicable
- » Presence of hematemesis if purging
- » Symptoms of hypokalemia if purging or using laxatives
- » Presence of tooth sensitivity, dental caries, and reduced enamel if purging
- » Presence of seizures
- » Symptoms of dehydration
- » If applicable, symptoms associated with refeeding syndrome: peripheral edema, pulmonary edema, and symptoms associated with cardiac failure

Physical Examination

Weight: We recommend weighing your client each visit, and to ensure accuracy, the client should be wearing similar clothing and you should use the same scale. The client should be offered the option of being weighed with his/her back to the scale in order to conceal the number or weight, as we have found this to be quite distressing and detrimental to progress in some clients.

Vital signs: We recommend checking the client's blood pressure and pulse after five minutes lying down and then repeated after one minute standing. We also recommend checking temperature.

The remainder of the exam should be determined based on the client's eating disorder behaviours and history. It is educational to discuss abnormalities found on the physical exam and history, as it assists the client in recognizing that their eating disorder behaviour has negative physical health consequences.

Physical Exam: As a general rule, it is helpful to examine:

- » Extremities: color, warmth, capillary refill, presence of peripheral edema
- » The cardiac system: bradycardia, tachycardia, arrhythmia, MVP
- » The abdomen if symptomatic or experiencing issues with bowel movements (constipation), or if considering other causes for weight loss/vomiting
- » Parotid gland enlargement if purging
- » Dentition if purging
- » Skin and mucous membranes: hydration, dryness, lanugo, and Russell's sign (abrasions/scarring on knuckles secondary to induced vomiting)
- » Neurological exam if you are considering other causes for weight loss/vomiting
- » Psychological status including affect, speech, grooming, and eye contact

Investigations

We recommend laboratory studies as suggested by the Manitoba Health Eating Disorder Guidelines. Please see the below link for laboratory screening suggestions.

Manitoba Health: Eating Disorders

<http://www.gov.mb.ca/healthyliving/mh/eatingdisorders/physicians.html>

Frequency and type of laboratory investigations is based on the client's behaviours, review of symptoms, physical exam, and, of course, your discretion as a practitioner.

Initially and as a general guideline you can consider:

- » CBC with differential, ferritin, B12, electrolytes, BUN, Cr, AST, ALT, Total Protein, Albumin, Globulin, TSH, Ca, Mg, Phosphate, RBS, Amylase (if purging), urinalysis, and MSU.
- » CBC, Ferritin, Folic Acid, and Vitamin B12 can be repeated every six months if clinically indicated.

If purging, we recommend weekly:

- » Na, K, Cl, CO₂, and BUN

If at risk for refeeding syndrome, we recommend weekly or biweekly:

- » Na, K, Mg, Phosphate, Ca, and RBS

Re-feeding syndrome is a potentially fatal condition resulting in severe electrolyte changes as a result of refeeding, or renourishment, after a period of malnutrition.

BMJ Clinical Review: Refeeding Syndrome: What it is, and How to Prevent and Treat it

<http://www.arabmedmag.com/issue-01-02-2009/miscellaneous/main02.htm>

Miscellaneous Testing

An EKG is of importance especially in clients with bradycardia to rule out a prolonged QTc interval (normal <0.44). A repeat EKG is usually not required unless cardiac symptoms persist, new cardiac symptoms develop, or if abnormalities were noted on EKG previously.

For patients with Anorexia Nervosa and amenorrhea lasting longer than six months, we suggest a bone scan every two years to monitor bone mineral density.

If your client is experiencing amenorrhea, we recommend ruling out other medical causes at your discretion with labs including:

- » Quantitative Beta-hCG, estradiol, FSH, LH, prolactin, and TSH

If your client is experiencing weight loss and/or chronic vomiting, it is helpful to consider differential diagnoses including:

- » New onset diabetes
- » Hyperthyroidism
- » Adrenal insufficiency
- » Depression or other psychiatric illness
- » Chronic infection
- » Celiac Disease, Inflammatory Bowel Disease, & Malabsorption
- » CNS lesions/tumors
- » Abdominal mass (benign or malignant)

Additional laboratory testing is dependant on the differential diagnosis you are excluding.

General Recommendations

- » Multivitamin once daily
- » Potassium supplementation as needed
- » Treat nutritional and mineral deficiencies (folate, B12, anemia, Mg, etc.)
- » Calcium (1200-1500 mg daily) and Vitamin D (400-1000 IU daily) for general bone health in accordance with Osteoporosis Canada, Health Canada, and American Academy of Pediatrics (note- supplements do not prevent osteoporosis)
- » Prevent and treat constipation
- » Activity restriction in underweight clients
- » Activity restriction with abnormalities in vital signs
- » Awareness of pharmaceuticals that prolong the QTc interval
- » Provide multidisciplinary care within a treatment team
- » Emphasize treatment goals as previously discussed
- » In Anorexia Nervosa: it is unclear if bone loss is fully reversible. Weight gain and resumption of menstruation is associated with an increase in bone mineral density.
- » Pregnancy is possible in client's with amenorrhea so contraception is encouraged if needed
- » There is conflicting evidence regarding the role of combined hormonal contraception in increasing bone mineral density and bisphosphonates are not supported in the area of osteoporosis treatment and prevention.

Indications for Hospitalization

Manitoba Health Eating Disorder Guidelines

Hospital admission should be considered in adults if:

- » Heart Rate < 40 bpm
- » Blood Pressure < 90/60 mm Hg
- » Symptomatic hypoglycemia\ Potassium < 3 mmol per litre
- » Temperature < 36.1 C

Hospital admission should be considered in adolescents if:

- » Heart Rate < 50 bpm
- » Orthostatic blood pressure resulting in an increase of heart rate > 20 bpm or a systolic drop in blood pressure of > 10 to 20 mm Hg
- » Blood pressure < 80/50 mm Hg
- » Hypokalemia or hypophosphatemia
- » Symptomatic hypoglycemia or RBS < 3 mmol per litre

Hospital admission should be considered in all clients if they experience/ demonstrate:

- » Dehydration
- » Cardiovascular Abnormalities other than bradycardia
- » Weight < 75% of expected weight
- » Poor motivation or insight
- » Poor cooperation in outpatient treatment
- » Inability to eat independently; complete food refusal
- » Require nasogastric feeding for weight restoration
- » Anti-therapeutic and/or unsafe environment, especially if abuse is present
- » Symptoms of Refeeding Syndrome: peripheral edema, pulmonary edema, and symptoms associated with cardiac failure
- » Medical instability (VS, glucose, dehydration, organ compromise)
- » Lack of improvement or worsening of condition in outpatient treatment
- » Rapid weight loss
- » Suicidal plan or marked suicidal ideation
- » Severe coexisting psychiatric diseases including psychosis

Eating Disorder Treatment Programs in Manitoba

- » Provincial Eating Disorder Prevention and Recovery Program
(tel) 204-947-2422 ext. 137
- » Health Sciences Centre Adult Eating Disorder Program (*physician referral required*)
(tel) 204-787-3482
- » Health Sciences Centre Child and Adolescent Eating Disorder Program (*physician referral required*) (tel) 204-958-9660

Miscellaneous Treatment Resources

Substance Abuse

Addictions Foundation of Manitoba

Winnipeg, Manitoba

(tel) 204-944-6200

CODI Outreach Program: Mental Health and Substance Abuse Case Management Services

Winnipeg, Manitoba

(tel) 204-787-5005

Addictions Program: Health Sciences Center

Winnipeg, Manitoba

Inpatient service for clients experiencing complications with substance withdrawal +/- treatment for associated mental health conditions

(tel) 204-787-3855

Outpatient services

(tel) 204-787-3843

Mental Health: Adolescents

MATC

Winnipeg, Manitoba

Offers a wide range of mental health services for children, adolescents, and families

(tel) 204-958-9660

Mental Health: Adults

Anxiety Disorders Clinic: St. Boniface Hospital

Winnipeg, Manitoba

Assessment and treatment services

(tel) 204-237-2335



WRHA Central Intake for Adult Psychiatry

Winnipeg, Manitoba

One time visit consultation service providing mental health assessment and treatment support. Consults will be forwarded to the first available site including St. Boniface, Health Sciences Center, or Misericordia Mental Health Services.

(tel) 204-787-7627

STAT Program: Health Sciences Center

Winnipeg Manitoba

Day treatment/outpatient programming for acute psychiatric support and/or crisis.

(tel) 204-787-7056

Mood Disorders Program: Health Sciences Center

Winnipeg, Manitoba

Comprehensive assessment and treatment for multiple mood disorders.

(tel) 204-787-7056

Intensive Case Management: Health Sciences Center

Winnipeg, Manitoba

Case management service for clients with Axis 1 and Axis 2 disorders.

(tel) 204-787-5172



Common Medical Complications

Anorexia Nervosa

Mortality Risk

Anorexia Nervosa is associated with an increase death, or all cause mortality, compared to the general population. Suicide accounts for 20 per cent of deaths, while medical complications including cardiac arrest account for approximately 50 per cent of deaths. Long term recovery rates are estimated at 32-70 per cent.

Electrolyte Disturbances

Vomiting, laxatives, and diuretic use can result in hypokalemia, hypochloramia, hyponatremia, and metabolic alkalosis. Hypophosphatemia and hypomagnesaemia should also be ruled out. Electrolyte abnormalities can be extremely dangerous, leading to cardiac arrhythmias and sudden death.

Endocrine Changes

Hypoglycemia and euthyroid hypothyroxinemia are possible findings in a client with Anorexia Nervosa.

Dehydration and Edema

Vomiting, laxatives, diuretic use, and dietary restriction can result in dehydration with subsequent water retention. Water retention is visible in the form of peripheral or facial edema, and usually occurs after vomiting and laxative use has ceased after regular use.

Cardiac Irregularities

Anorexia Nervosa is associated with bradycardia, hypotension, mitral valve prolapse, QT prolongation, T wave inversion, myocardial atrophy, arrhythmia, and heart failure. A prolonged QT is often associated with electrolyte abnormalities, specifically hypokalemia, which is a precursor to cardiac arrhythmias and sudden death. Heart failure usually results from a combination of reduced cardiac contractility and refeeding edema.

Bone Abnormalities

Osteopenia and Osteoporosis are potentially irreversible complications associated with Anorexia Nervosa. The pathogenesis of bone loss is likely multifactorial, and is thought to be associated with estrogen deficiency secondary to amenorrhea, inadequate calcium and vitamin D, in addition to low BMI. It is estimated that 40-60 per cent of bone mass is accrued during the adolescent years. Osteopenia places clients at risk for fractures.

Pulmonary Changes

Anorexia Nervosa is associated with emphysematous changes (also called nutritional emphysema) on chest imaging although the complications and medical sequelae of this finding remains unclear. It is suggested that decreased lung density is a reversible consequence of starvation/malnutrition. Clients with Anorexia Nervosa: Purging Type are also at risk for aspiration pneumonia (rare).

Renal Dysfunction

Renal abnormalities include electrolyte disturbances, inability to concentrate urine, elevated BUN (from intravascular depletion), decreased GFR, renal calculi, and polyuria secondary to abnormal vasopressin secretion.

Gastrointestinal Changes

In malnourished clients, delayed gastric emptying is common, resulting in complaints such as bloating, constipation, and stool changes. Superior mesenteric artery (SMA) syndrome is a rare finding that is associated with weight loss or low BMI, causing compression of the duodenum between the aorta and the vertebral column. Clients with Anorexia Nervosa: Purging Type may also experience dental erosion, parotid hypertrophy, esophagitis, Mallory-Weiss tears, esophageal/stomach rupture (rare), Barrett esophagus, fatty liver infiltration, acute pancreatitis, and gallstones.

Hematological Changes

Hematological changes include leukopenia, thrombocytopenia, and anemia. B12 deficiency can be a common finding in clients with a vegetarian diet.

Neurological Changes

Seizures can result from coexisting electrolyte abnormalities including hypoglycemia, hyponatremia, and hypomagnesaemia. Seizures can also be precipitated by decreased cerebral perfusion. Cerebral atrophy, cognitive impairment, and Wernicke's encephalopathy (rare) are also associated with Anorexia Nervosa.

Cognitive/Emotional Changes

Malnutrition is linked with, or can exacerbate, depression, anxiety, irritability, mood swings, and personality changes.

Dental Erosion

If clients are experiencing Anorexia Nervosa: Purging Type, they are at risk for tooth sensitivity, loss of enamel, periodontal disease, and dental caries.

Hepatic Changes

Acute hepatic insufficiency can result from prolonged malnutrition.

Reproductive Changes

Menstrual irregularities, amenorrhea, and secondary fertility issues can result from caloric restriction and malnutrition.

Re-feeding Syndrome

Refeeding syndrome is a potentially fatal condition resulting from the rapid refeeding of a malnourished client. Refeeding syndrome can cause potentially fatal shifts in both fluids and electrolytes. Risk factors for refeeding syndrome include low BMI, little or no nutritional intake for five days, electrolyte disturbances before refeeding begins, and unintentional weight loss. Electrolyte abnormalities seen in refeeding syndrome include hypophosphatemia, hypomagnesium, hypokalemia, hypocalcemia, and hypoglycemia. A deficiency in phosphorus is the most dangerous as it is linked with acute pulmonary edema due to dilated cardiomyopathy.

Bulimia Nervosa

Mortality Risk

The risk of death, or all cause mortality, in clients with Bulimia Nervosa is two times greater than the general population. The rate of suicide has been estimated at seven times greater than the general population. Long term follow-up shows recovery rates of around 60 per cent.

Electrolyte Disturbances

Vomiting, laxatives, and diuretic use can result in hypokalemia, hypochloramia, hyponatremia, and metabolic alkalosis. Hypophosphatemia, hypocalcaemia, and hypomagnesaemia should also be ruled out. Electrolyte abnormalities can be extremely dangerous, leading to cardiac arrhythmias and sudden death.

Dehydration and Edema

Vomiting, laxatives, diuretic use, and dietary restriction can result in dehydration with subsequent water retention. Water retention is visible in the form of peripheral or facial edema, and usually occurs after cessation of regular vomiting and laxative use.

Cardiac Irregularities

Bulimia Nervosa can be associated with bradycardia and hypotension, which is often a result of periods of restriction or dehydration. Palpitations are a common complaint and often a result of tachycardia post purging, hypokalemia, or dehydration. QT prolongation is often associated with electrolyte abnormalities, such as hypokalemia, which is a precursor to ventricular arrhythmias and sudden death.

Reproductive Changes

Menstrual irregularities or amenorrhea can result from caloric restriction, erratic nutritional patterns, and overall malnutrition.

Bone Abnormalities

Osteopenia and Osteoporosis are potential complications of Bulimia Nervosa. The pathogenesis of bone loss is likely multifactorial, and is thought to be associated with estrogen deficiency if the client is experiencing amenorrhea, inadequate intake or absorption of calcium and vitamin D, and a low BMI which is a possible finding in clients with Bulimia Nervosa. It is estimated that 40-60 per cent of bone mass is accrued during the adolescent years. Osteopenia places clients at risk for fractures.

Renal Dysfunction

Renal abnormalities include electrolyte disturbances, inability to concentrate urine, elevated BUN (from intravascular depletion), renal stones, and decreased GFR.

Gastrointestinal Changes

If malnourished, delayed gastric emptying is common, resulting in complaints such as bloating, constipation, and stool changes. Clients with Bulimia Nervosa: Purging Type may also experience parotid hypertrophy, esophagitis, Mallory Weiss tears, esophageal/stomach rupture (rare), Barrett esophagus, fatty liver infiltration, acute pancreatitis (secondary to binge eating), and gallstones.

Pulmonary Changes

Although extremely rare, clients with Bulimia Nervosa: Purging Type are at risk for aspiration pneumonia.

Neurological Changes

Seizures can result from coexisting electrolyte abnormalities including hypoglycemia, hyponatremia, and hypomagnesaemia. Seizures can also be precipitated by decreased cerebral perfusion.

Cognitive/Emotional Changes

Malnutrition is linked with, or can exacerbate existing depression, anxiety, irritability, mood swings, and personality changes.

Dental Erosion

If purging, clients are also at risk for tooth sensitivity, loss of enamel, periodontal disease, and dental caries.