

Understanding Eating Disorders & Cardiovascular Consequences

Eating disorders can affect the heart and circulation, sometimes with serious complications. Early recognition and comprehensive care can help prevent long-term problems and support recovery.



What Are Eating Disorders?

Eating disorders are serious medical and mental health conditions that affect eating behaviors, body image, and overall health. They can have significant effects on the heart and cardiovascular system.

Anorexia Nervosa

Bulimia Nervosa

Binge-Eating Disorder

Other Restrictive or Purging Disorders

Why the Heart Can Be Affected

- Malnutrition and rapid or significant weight loss
- Changes in body composition and reduced metabolic demand
- Dehydration and reduced blood volume
- Electrolyte abnormalities (e.g., from vomiting, laxatives, diuretics)
- Hormonal and autonomic nervous system changes
- Excessive exercise
- Refeeding changes during nutritional rehabilitation



Common Cardiovascular Consequences



Sinus Bradycardia

Slower heart rate due to reduced metabolic demand. Very common with significant restriction.



Low Blood Pressure

Reduced cardiac output, dehydration, and malnutrition.



Orthostatic Intolerance

Dizziness, rapid heart rate, presyncope or fainting when standing.



Reduced Heart Size and Mass

Loss of heart muscle mass with prolonged malnutrition.



Pericardial Effusion

Associated with severe malnutrition. Usually small, but should be clinically assessed.



Electrolyte Abnormalities

Vomiting, diarrhea, laxatives, diuretics, or dehydration can cause low potassium, magnesium, sodium, and chloride.



QT Abnormalities

Often related to electrolyte disturbances or certain medications. May increase risk of dangerous arrhythmias.



Mitral Valve Prolapse

Reduced heart muscle mass may alter mitral valve geometry. Often improves with nutritional restoration.



Cardiac Dysfunction

Can occur with severe or prolonged malnutrition.



Arrhythmias

Electrolyte abnormalities, medications, starvation, or autonomic changes. Can be life-threatening in severe cases.

The Electrolyte-Arrhythmia Connection

Purging behaviors (vomiting, laxatives, diuretics) can cause dangerous electrolyte abnormalities, especially low potassium and low magnesium, which increase the risk of ventricular arrhythmias.



Refeeding: A Critical Period

During nutritional rehabilitation, electrolyte levels can shift rapidly (especially phosphate, potassium, and magnesium), leading to serious complications such as arrhythmias, cardiac dysfunction, fluid overload, and respiratory or neurologic problems.



Many Changes Can Improve

With proper nutritional rehabilitation, hydration, electrolyte correction, cessation of purging behaviors, and multidisciplinary treatment, many cardiovascular abnormalities are potentially reversible.



When to Seek Medical Evaluation

- Syncope (fainting)
- Chest pain
- Severe or worsening shortness of breath
- Significant palpitations
- Marked bradycardia or low blood pressure
- Substantial dizziness with standing
- Dehydration or significant electrolyte abnormalities
- Abnormal ECG or concerning heart findings



Evaluation May Include



- Vital signs and orthostatic measurements
- ECG
- Blood tests (electrolytes, kidney function, magnesium, phosphorus, etc.)
- Echocardiography (when indicated)
- Additional testing based on symptoms and clinical findings

Key Takeaways

- ✓ Eating disorders can be cardiovascular illnesses, not just psychiatric or nutritional conditions.
- ✓ Serious complications can occur even without severe underweight.
- ✓ Early recognition and coordinated medical, nutritional, and mental health treatment are essential.
- ✓ Activity and return to sports should be individualized, not based solely on weight or appearance.



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