

POTENTIAL COMPLICATIONS OF UNMODIFIED EXERCISE WITH AN EATING DISORDER

EATING DISORDER (IRRESPECTIVE OF WEIGHT, SHAPE OR SIZE)

↓ ENERGY & FLUID AVAILABILITY, MALNUTRITION, STARVATION, PURGING

HEALTH CONSEQUENCES OF ED

PSYCHOLOGICAL Exercise dependence Anxiety Depression Irritability Dysfunctional attitudes Emotional distress Decreased stress tolerance Interpersonal dependence Reliance on pain medication Increased medication side effects Decreased health related QOL Exercise withdrawal	Postural tachycardia Orthostatic hypotension Hypotension Prolonged QTc interval Arrythmia Superior mesenteric artery syndrome Cardiac arrest Heart failure Angina Palpitations Heart attack Mitral valve disease Torsade de pointes Organ damage and failure Abnormal blood oxygen saturation Aortic obstruction Pericardial effusion Decreased stroke volume	Decreased left ventricular mass Peripheral blood pooling RESPIRATORY Shortness of breath Rapid, shallow breathing Hyperventilation Respiratory compromise Respiratory paralysis MUSCULAR Muscular dysfunction Weakness Cramping Tremors and fasciculation Pain Rhabdomyolysis Tetany Catabolism	SKELETAL Uncoupling of bone Decreased bone mineral density and geometry Decreased lying down of lifetime bone Difficulty reacquiring bone Osteoporosis and osteopenia Cortical thinning Lower trabecular number and density Decreased space between trabecular Lower bone calcium regulation Permanent postural damage NEUROLOGICAL Autonomic nervous system dysfunction	Neuralgia Ataxia Vertigo Dysphagia Requirement of pain med'n Irreversible brain damage ELECTROLYTES Hyponatremia Hypokalemia Hypophosphatemia Hypercarbia HYDRATION Hypohydration Dehydration Hypovolemia TEMPERATURE Hypothermia Cold extremities	METABOLIC Decreased resting metabolic rate Decreased glycogen Decreased leptin Decreased growth hormones Decreased insulin-like growth factor 1 Decreased urine specific gravity Decreased blood urea nitroge Increased ghrelin Increased cortisol Increased transaminase Hypoglycaemia SEXUAL Decreased oestrogen Decreased testosterone Decreased lutinising hormone	Decreased follicle stimulation hormone Risk of menstrual disturbance and dysfunction Functional hypothalamic amenorrhea COMORBID ILLNESS Increased risk of psychological and physical comorbidities ANTHROPOMETRY Altered body fat percentage Altered body mass index Altered ideal body weight HAEMATOLOGICAL Anemia IMMUNOLOGICAL Increased risk of infection
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CONSEQUENCES OF EXERCISING WITH AN ED WITHOUT APPROPRIATE MODIFICATION

PSYCHOLOGICAL Exacerbate exercise dependence Decreased psychological capacity Increased rigidity Increased compulsivity CARDIOVASCULAR Decreased cardiac output during exercise	Decreased endurance Decreased performance MUSCULOSKELETAL AND NEUROLOGICAL Bone and muscle catabolism Worsened long term bone health Increased amino acid catabolism	Increased stress fracture risk and prevalence Increased muscle pain due to circulatory lactate Increased oxygen perfusion, uptake and utilization Decreased muscle strength Increased injury risk	Decreased concentration in sport Decreased judgment in sport Decreased coordination Decreased training adaptations and responses ELECTROLYTES Increased electrolytes lost in sweat	HYDRATION Hypohydration Dehydration Hypovolemia TEMPERATURE Increased risk of heat illness and heat stroke	METABOLIC Induce or worsen hypoglycaemia Adrenal dysfunction Increased blood urea nitrogen (indirectly) SEXUAL Induce or worsen FHA and associated risks	COMORBID ILLNESS Increased risk of negative outcomes with comorbid condition OTHER Exercise intolerance ENERGY AVAILABILITY FURTHER DECREASED
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