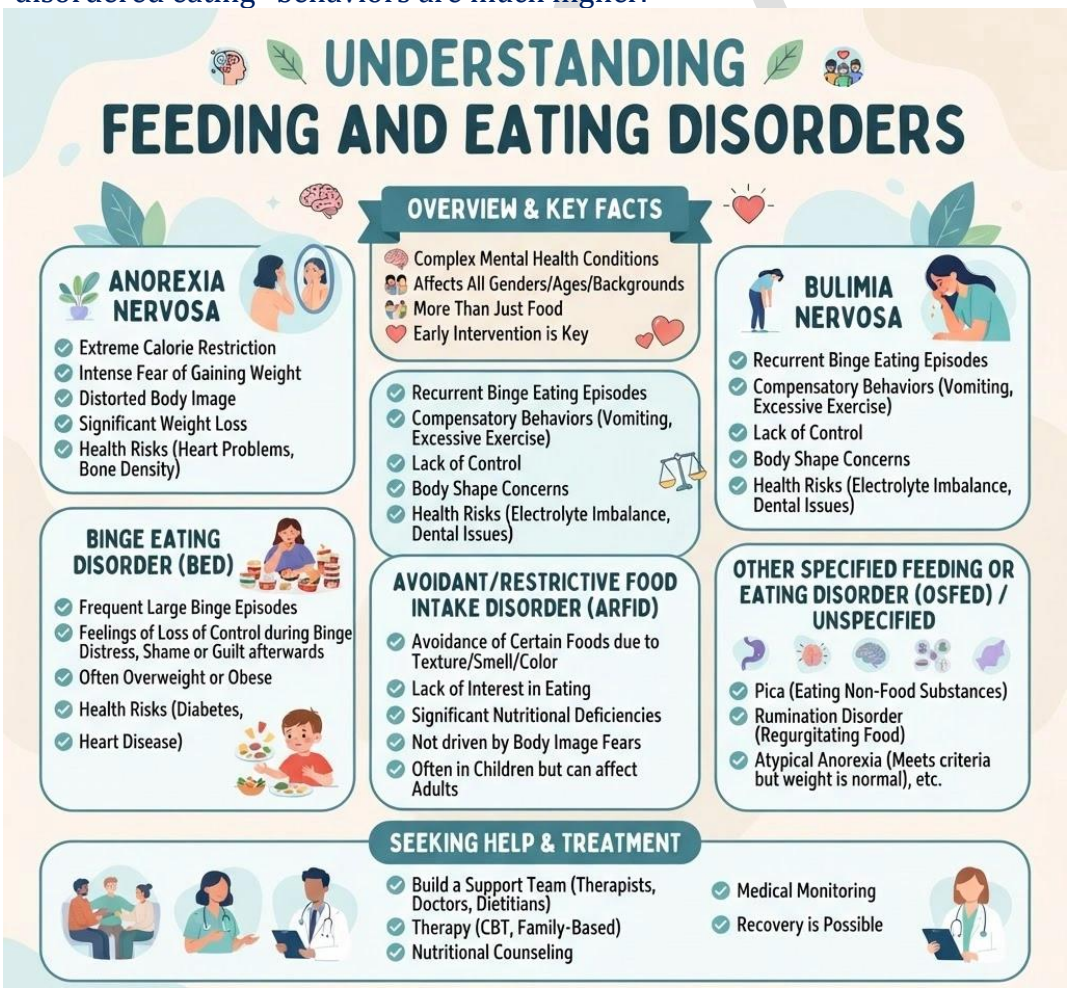
EATING DISORDERS

The lifetime prevalence of an eating disorder among U.S. adolescents (ages 13-18) is approximately 2.7%. The overall global prevalence of clinically diagnosed eating disorders in children is estimated at 1%. However, the incidence is rising, and rates for "disordered eating" behaviors are much higher.



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Identification and Screening

- **Routine Screening**: Routinely conduct confidential psychosocial assessments that include questions about eating behaviors, body image, and mood, especially when caring for adolescents and young adults. This can be part of annual health supervision visits or annual sports physical. The Bright Futures guidelines provide examples.

- **Monitor Growth**: Monitor patients' height, weight, and BMI trends longitudinally, to avoid missing critical windows for intervention before pathology becomes entrenched. Significant or rapid changes in the weight can be as harmful as low weight.

- **Pay Attention to Risk Factors**: Be knowledgeable about risk factors, including a family history of eating disorders, other mental illnesses (especially anxiety disorders and obsessive-compulsive disorder), participation in sports that emphasize leanness, and a history of dieting.

- **Be Aware of Atypical Presentations**: Not all children and adolescents with eating disorders fully meet DSM-5 criteria initially. Some may not articulate body-image dissatisfaction, or their inadequate nutrition may manifest as growth failure rather than significant weight loss. Be aware of "partial syndromes" or unspecified eating disorder or other specific eating disorder.

Screener.Dx Category	Screener.Name	Screener.Acronynm	Screener.Description
Eating Disorders	Eating Attitudes Test 12 – 18+ years Self Report	EAT-26 ⇒ English	The Eating Attitudes Test (EAT, EAT-26), created by David Garner, is a widely used self-report questionnaire 26-item standardized self-report measure of symptoms and concerns characteristic of eating disorders. The EAT has been a particularly useful screening tool to assess "eating disorder risk" in high school, college and other special risk samples such as athletes.
Eating Disorders	Sick, Control, One, Fat, Food 14+ Self Report	SCOFF ⇒ English	The SCOFF Questionnaire is a five-question screening tool designed to clarify suspicion that an eating disorder might exist rather than to make a diagnosis. The questions can be delivered either verbally or in paper format.
Eating Disorders	Eating Disorders Examination Questionnaire 14+ Self Report	EDE-Q ⇒ English	The Eating Disorder Examination Questionnaire (EDE-Q) is a 28-item self-report questionnaire, adapted from the semi-structured interview, the Eating Disorder Examination (EDE). The questionnaire is designed to assess the range, frequency and severity of behaviors associated with a diagnosis of an eating disorder. It is

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			categorized into 4 subscales (Restraint, Eating Concern, Shape Concern and Weight Concern) and an overall global score, with a higher score indicating more problematic eating difficulties.
Eating Disorders	Eating Disorders Examination Questionnaire Parent Version 8+ Caregiver Report	EDE-Q-PV ⇒ English	The EDE-Q-PV is an adapted parent/carer version of the EDE-Q, where the word 'you' has been replaced with 'your child'. It was designed to assess parent/carers' attitudes about their children's eating and weight. It was first used and mentioned by Lydecker & Grilo (2017).
Eating Disorders	Eating Disorders Examination Questionnaire Short 14+ Self Report	EDE-QS ⇒ English	The EDE-QS is a 12-item measure, derived from the EDE-Q and intended to be shorter. It was developed and validated by Gideon et al. (2016) for use with individuals with eating disorders such as Anorexia Nervosa – Restrictive subtype, Anorexia Nervosa – Binge/Purge subtype, Bulimia Nervosa, Binge Eating Disorder, and other specified feeding and eating disorders (OSFED). It was designed for use in routine outcome assessment, including session by session monitoring.
Eating Disorders	Eating Disorders Examination for Adolescents 12-13 Self Report	EDE-A ⇒ English	The EDE-A is an adapted version of the EDE-Q which was first mentioned and used in Carter, Stewart & Fairburn (2001). It was designed for use with those aged 12-13. It contains 36 items and yields the same four subscales and global score as the EDE-Q. The time frame was shortened from 28 to 14 days as this was more appropriate for the age group, and certain words and phrases were replaced with more simplified language. To aid interpretation of EDE-A scores, normative data for UK early adolescents can be found in the paper. Please be aware there is scarce evidence for the use of the EDE-A. Please also note that there is a missing response option for 11 days on the EDE-A.
Eating Disorders	Youth Eating Disorders Examination Questionnaire 8+ Self Report	YEDE-Q ⇒ English	The YEDE-Q was adapted from the EDE-Q and is designed for use with children and adolescents. It has a literacy level consistent with third grade (aged 8-9 years) reading ability.

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DSM-5 Diagnoses and their ICD10 diagnostic anchors + codes

Anorexia nervosa (AN) —ICD-10-CM: F50.01 (restricting); F50.02 (binge-eating/purging). Use specifiers: F50.010–F50.014 and F50.020–F50.024 (severity/remission); F50.019/F50.029 (unspecified).

- Energy restriction → significantly low weight.
- Intense fear of weight gain or persistent behaviors that interfere with weight gain.
- Body-image disturbance or limited insight into medical risk.

Bulimia nervosa (BN) —ICD-10-CM: F50.2 (category) → F50.20 (unspecified), F50.21–F50.24 (mild–extreme), F50.25 (in remission).

- Recurrent binge eating with loss of control.
- Recurrent compensatory behaviors (e.g., vomiting, laxatives, excessive exercise).
- Occurs ~1×/week for ≥3 months; weight/shape overly influence self-evaluation; not exclusively during AN.

Binge-eating disorder (BED) —ICD-10-CM: F50.81 (category) → F50.810–F50.813 (mild–extreme), F50.814 (in remission), F50.819 (unspecified).

- Recurrent binge eating (~1×/week for ≥3 months) with marked distress.
- No regular compensatory behaviors.

Avoidant/Restrictive Food Intake Disorder (ARFID) —ICD-10-CM: F50.82 (billable; includes in remission).

- Restrictive/avoidant intake causing weight loss/faltering growth, nutritional deficiency, supplement/tube-feed dependence, or marked psychosocial impairment.
- Not driven by weight/shape concerns; not better explained by lack of food/cultural practice.

Other Specified Feeding or Eating Disorder (OSFED) —ICD-10-CM: F50.89.

- Clinically significant feeding/eating presentations not meeting full criteria (e.g., atypical AN; subthreshold BN/BED; purging disorder; night eating syndrome).

Unspecified Feeding or Eating Disorder (UFED) —ICD-10-CM: F50.9.

- Symptoms characteristic of an eating/feeding disorder causing distress/impairment but insufficient information to make a specific diagnosis.

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Initial Evaluation

When screening raises suspicion of an eating disorder, the initial evaluation includes:

- **Establishing the Diagnosis**: Utilize DSM-5 criteria.

- **Comprehensive History**: Take a detailed history, including:
  - Weight history (fluctuations, extremes, what the patient thinks is a healthy weight, desired weight).
  - Current eating habits (adequacy of intake, portion sizes, food restrictions, picky eating, ritualized eating, recent vegetarianism, excessive noncaloric fluid intake, calorie/fat/carbohydrate counting, 24-hour diet history).
  - Binge-eating (frequency, triggers).
  - Purging history (self-induced vomiting, use of diuretics, laxatives, diet pills, ipecac).
  - Exercise patterns (amount, frequency, intensity, stress if exercise is missed).
  - Social media apps or other forms of information are being used by the patient and within their family/social groups, including involvement with pro-anorexia/bulimia websites and diet/exercise tracking apps.
  - Elimination patterns (constipation, diarrhea).
  - Menstrual history (age at menarche, regularity, last period).
  - Psychiatric comorbidity (depression, anxiety, obsessive-compulsive disorder, suicide).
  - Suicidal ideation and history of suicide attempts.
  - History of physical or sexual abuse or violence.
  - Parents' reaction to the illness (indifference, denial, inconsistent views about treatment).
  - Previous therapy (type, duration, what was helpful/not helpful).
  - Family history of obesity, eating disorders, depression, other mental illness (especially anxiety disorders and obsessive-compulsive disorder), substance abuse.
  - Use of nicotine (i.e. vaping, pouches), marijuana, alcohol, stimulants, and other illicit substances.
  - Review of systems related to eating disorders: (dizziness, fatigue, cold intolerance, palpitations, exercise intolerance, hair loss, abdominal pain, vomiting, changes in bowel habits, weakness, menstrual irregularities) as well as for the differential diagnosis: hyperthyroidism, diabetes, malignancy, infection, inflammatory bowel disease, malabsorption, chronic infection.

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- **Comprehensive Physical Examination**: Perform a thorough physical exam, looking for potential signs and symptoms:
    - Weight, height, BMI, and comparison to growth charts.
    - Vital signs (including orthostatic blood pressure and heart rate).
    - Temperature (hypothermia).
    - Skin (pallor, easy bruising, dryness, lanugo).
    - Hair (dryness, loss)
    - Mouth (dental enamel erosion, poor dentition, salivary gland hypertrophy).
    - Cardiovascular (bradycardia, arrhythmia, murmurs).
    - Abdomen (bloating, pain).
    - Extremities (coldness, edema).
    - Sexual maturity rating in adolescents (delayed puberty).

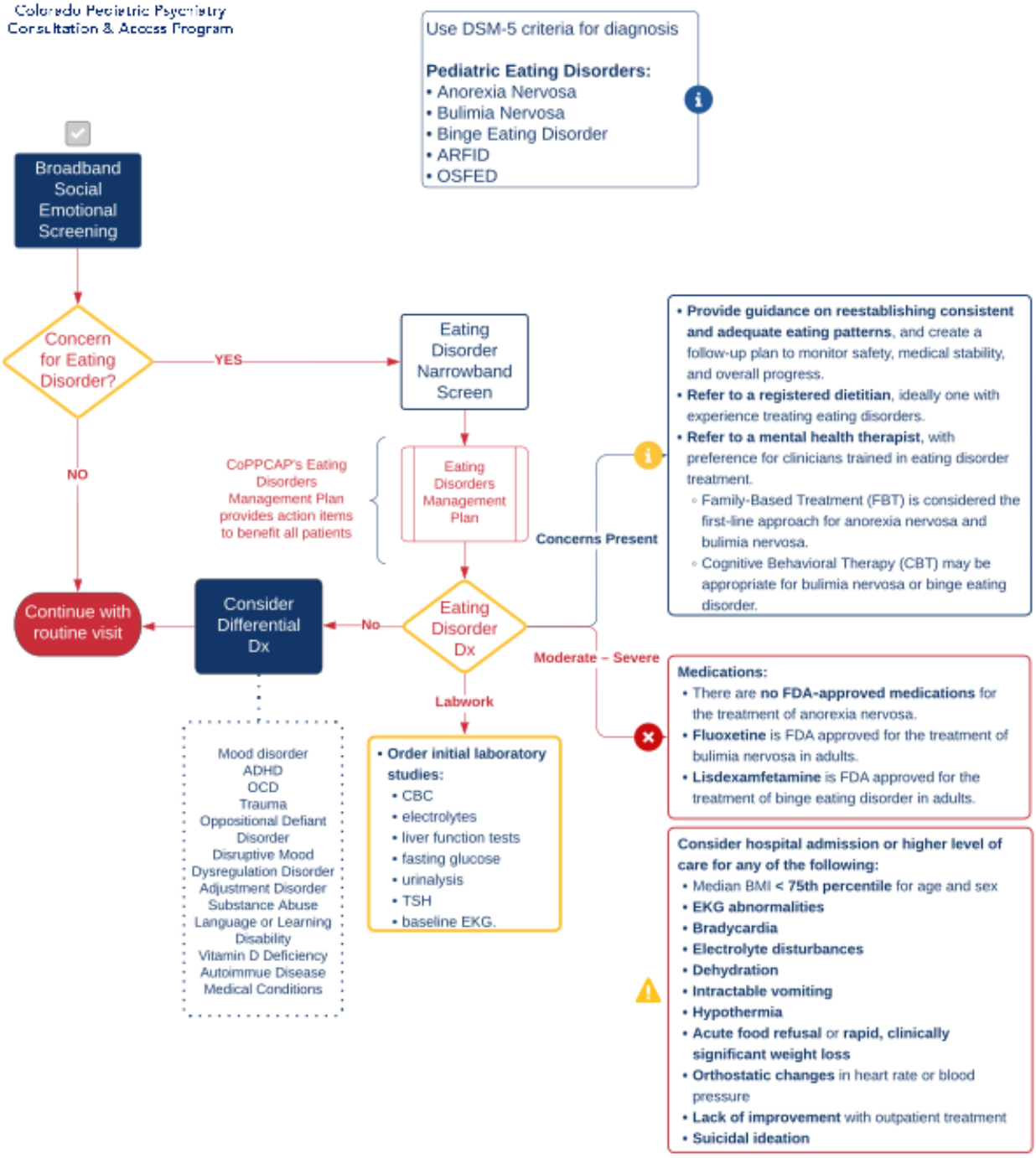
- **Laboratory Testing**: Initial labs should include:
    - CBC with differential
    - Electrolytes (sodium, potassium, chloride, bicarbonate), calcium, magnesium, phosphorus
    - LFTs (liver function tests)
    - Glucose
    - UA (urinalysis)
    - TSH (thyroid-stimulating hormone)
    - Consider: amylase (if purging suspected),vitamin B12, vitamin D, iron, and zinc (based on nutritional history); urine pregnancy, serum gonadotropin, prolactin (in cases of amenorrhea); Baseline EKG (with significant weight loss, bradycardia, orthostasis, electrolyte abnormalities); serum gonadotropin, testosterone (males with restrictive eating); inflammatory markers, celiac studies, serum cortisol, stool testing, imaging of brain or GI tract (in cases of uncertainty about diagnosis)

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Eating Disorders Algorithm

CoPPCAP | Colorado Care Guide



click the algorithm above to enlarge

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Management and Treatment

Outpatient Care: Most children and adolescents with eating disorders can be managed in an outpatient setting. Pediatricians play a crucial role in assessing progress, managing medical complications, and coordinating care. PCPs should ensure frequent weight check ins while working with the multidisciplinary team, which may include adolescent medicine, therapist, and dietician.

Nutrition Restoration: Many youths with eating disorders need caregiver involvement to help them reestablish a healthy relationship with food and ensure intake of adequate daily calories and a variety of macro and micronutrients to promote weight restoration.

- Implement regular meals and snacks with caregiver supervision.
- Encourage caregivers to work with school to support supervision during meal times.

Managing Other Eating Disorder Behaviors:

- Monitoring for purging (bathroom supervision)
- Monitor for binging
- Monitor technology and social media use
- Limit excessive activity and exercise
- Discontinue supplements/medications/products used for controlling weight

Dietitian's Role: A registered dietitian plays a central role in the assessment and treatment of pediatric eating disorders by helping children, adolescents, and their families establish safe, balanced, and sustainable eating patterns. Dietitians provide nutrition assessment, develop individualized meal plans, monitor growth and weight restoration, address nutritional deficiencies, and educate families about the impact of disordered eating on physical and emotional health. Working collaboratively within a multidisciplinary team, they support patients in challenging food-related fears, normalizing eating behaviors, and achieving age-appropriate nutritional intake to promote healthy growth, development, and recovery. Dietitians also guide caregivers in implementing structured meals and snacks, reducing mealtime conflict, and fostering a supportive home environment that reinforces treatment goals.

Evidence-based Psychotherapy Options

- **Family-Based Treatment (FBT)**: Recommended as a first-line treatment for adolescents with anorexia nervosa and bulimia nervosa, involving parents in weight restoration. Empower caregivers to take charge of selecting and monitoring all meals and snacks.
- **Enhanced Cognitive Behavioral Therapy (CBT-E)**: Cognitive Behavioral Therapy for Eating Disorders (CBT-E) is a specialized, evidence-based form of

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cognitive behavioral therapy designed specifically to address the underlying mechanisms that maintain eating disorders. CBT-E helps children, adolescents, and their families identify and challenge unhelpful beliefs about food, weight, shape, and self-worth while developing healthier eating patterns and coping strategies. Treatment focuses on establishing regular eating, reducing eating disorder behaviors, improving body image, and addressing perfectionism, low self-esteem, and emotional difficulties that may interfere with recovery.

- **Dialectical Behavior Therapy (DBT)**: Dialectical Behavior Therapy (DBT) is an evidence-based treatment approach that helps children and adolescents with eating disorders develop skills for managing intense emotions, reducing impulsive behaviors, and improving distress tolerance. DBT teaches four core skill areas: mindfulness, emotion regulation, distress tolerance, and interpersonal effectiveness.
- **Acceptance and Commitment Therapy (ACT)**: Acceptance and Commitment Therapy (ACT) is an evidence-based behavioral therapy that helps children and adolescents with eating disorders develop greater psychological flexibility and reduce the impact of difficult thoughts, emotions, and body image concerns on their eating behaviors.
- **Interpersonal Psychotherapy (IPT)**: Interpersonal Psychotherapy (IPT) is an evidence-based treatment approach that helps children and adolescents with eating disorders identify and address interpersonal challenges that may contribute to the development or maintenance of disordered eating behaviors. IPT focuses on improving relationships, communication skills, emotional expression, and coping with life transitions, conflicts, grief, or social difficulties.

Pharmacotherapy: Medications should not be used as monotherapy for anorexia nervosa or bulimia nervosa.

- Fluoxetine is FDA-approved for bulimia nervosa in adults but may be considered off-label in adolescence.
- Select antidepressants or topiramate may be considered for bulimia nervosa, and lisdexamfetamine for binge-eating disorder, to treat co-occurring conditions.
- Olanzapine may be considered in some cases of anorexia nervosa for weight gain and obsessive thinking, but evidence is still emerging.

Bridging Care: Given potential delays in accessing specialty care in Colorado, primary care providers can play a crucial role in bridging this gap.

- Schedule frequent follow-up visits
  - (weekly or bi-weekly) to monitor symptoms and support caregivers.
- Weight in gown or have patients wear the same light weight clothing
- Emphasize the seriousness of the illness and the importance of weight gain.

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- Educate families on the impact of malnutrition.
- Encourage caregivers to take charge of meals and snacks (FBT principles).
- Monitor vital signs and laboratory values regularly.
- Manage supplementation as needed (e.g., iron, vitamin D, calcium).
- Assess for medical instability and the need for hospitalization.
- Reduce guilt and blame in caregivers and patients.

When to Refer and Hospitalization

Referral: Refer patients to eating disorder specialists (medical, nutritional, and mental health professionals) when you are not comfortable managing the case independently or when the patient requires more specialized care. Utilize local resources in Colorado.

Criteria for Hospital Admission: Be aware of criteria for hospital admission due to medical or psychiatric needs or failure of outpatient treatment. These may include:

- Significant weight loss or acute food refusal.
- Medical instability:
    - Bradycardia (HR < 50 bpm awake or < 45 bpm sleeping).
    - Hypotension (SBP < 90/45 mmHg or orthostatic drop).
    - Hypothermia (< 96°F [35.6°C]).
    - Electrolyte imbalances (low potassium, magnesium, phosphate, glucose).
    - Dehydration.
    - Cardiac abnormalities (e.g., arrhythmia, QTc prolongation).
    - Syncope or seizure.
    - Acute medical complications of malnutrition or purging (e.g., heart failure, pancreatitis, hematemesis).
    - Psychiatric instability:
        - Acute suicidality or safety concerns.
        - Uncontrollable bingeing and purging.
        - Severe psychiatric comorbidity that limits outpatient treatment.
        - Arrested growth and development.
        - Failure of outpatient treatment to achieve medical, nutritional, or psychiatric goals.
    - Refeeding Syndrome: Be aware of the risk of refeeding syndrome in severely malnourished patients during aggressive nutritional rehabilitation, particularly in the first week of hospitalization. Monitor electrolytes closely.

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Medical Complications

Eating disorders can affect every organ system, and medical complications can be serious or life-threatening. Be vigilant for:

- **Cardiovascular**: Bradycardia, hypotension, orthostatic changes, arrhythmias, cardiomyopathy.
- **Endocrine**: Hypothalamic amenorrhea, delayed puberty, growth retardation, low bone mineral density. Younger patients are at higher risk for more permanent effects on growth and bone density.
- **Gastrointestinal**: Constipation, abdominal pain, bloating, delayed gastric emptying, elevated amylase (with purging), acquired lactase deficiency.
- **Renal**: Elevated creatinine, electrolyte imbalances.
- **Hematologic**: Anemia, leukopenia, thrombocytopenia.
- **Neurologic**: Seizures (related to electrolyte imbalances), cognitive deficits. Gray matter changes may persist despite weight recovery.
- **Metabolic**: Hypothermia, electrolyte disturbances (hypokalemia, hypophosphatemia, hypomagnesemia), hypoglycemia.
- **Dental**: Erosion of dental enamel (with vomiting), poor dentition.
- **Orthopedic:** low bone mineral density

Most medical complications resolve with adequate nutrition and cessation of purging. However, some, like growth retardation, structural brain changes, and low bone mineral density, may become irreversible.

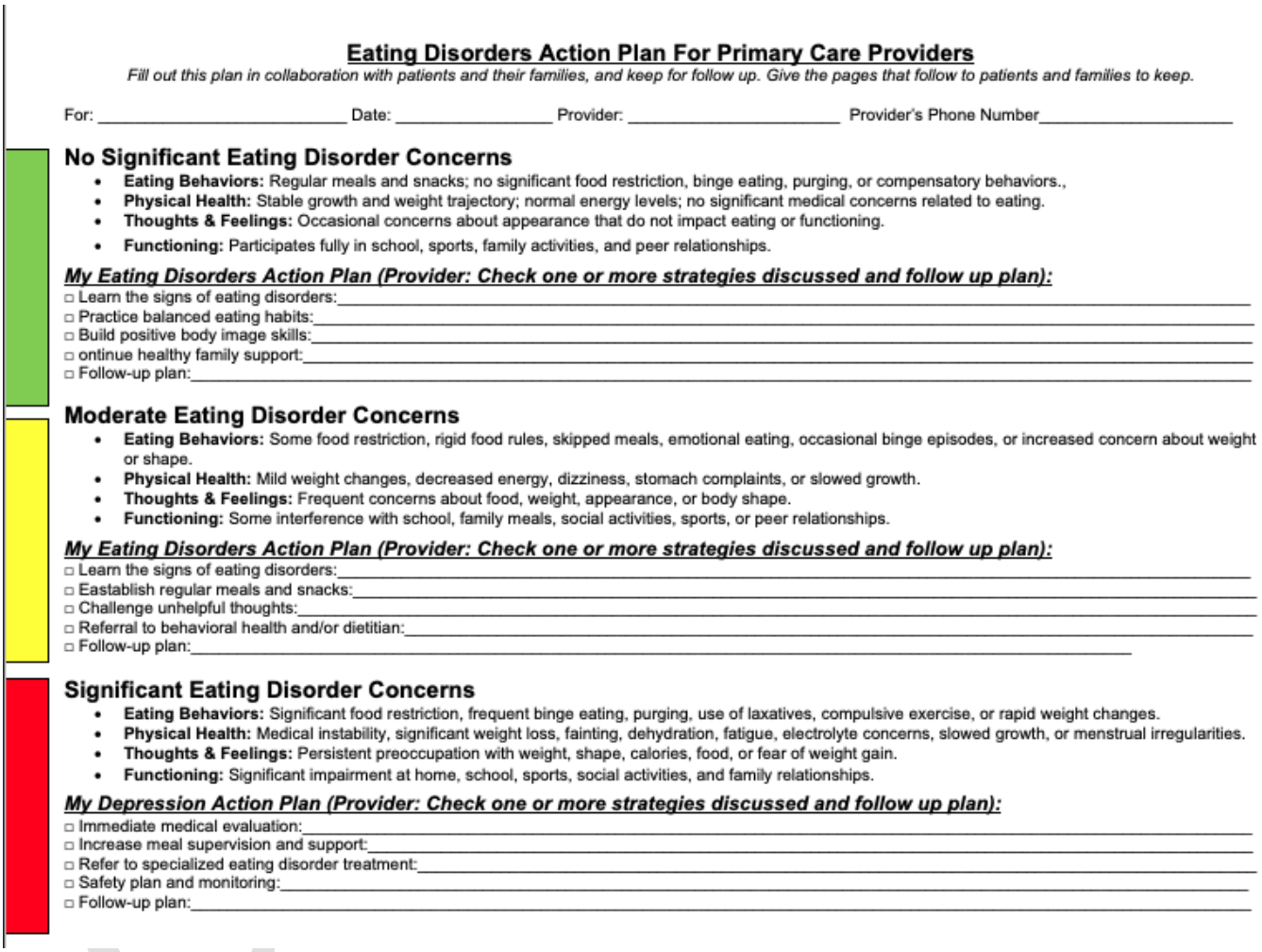
Pediatricians' Role in Prevention and Advocacy

- **Primary Prevention**: Help families and children learn about proper nutrition and physical activity and avoid unhealthy emphasis on weight and dieting. Be cautious with seemingly innocuous statements about weight.
- **Early Detection**: Screen for early signs of disordered eating or dysfunctional thought patterns in relation to eating or body image.
- **Monitoring**: Regularly calculate and plot weight, height, and BMI. Assess menstrual status in girls.
- **Intervention**: Be prepared to intervene when disordered eating is suspected or call CoPPCAP to discuss the case and review appropriate recommendations.
- **Coordination**: Be familiar with treatment resources in your community to coordinate multidisciplinary care or call CoPPCAP to receive help in identifying evidence-based resources near your patient's location.
- **Advocacy**: Advocate for legislation and policies that ensure appropriate services for patients with eating disorders, including medical care, nutritional intervention, mental health treatment, and care coordination in appropriate settings. Address reimbursement issues that limit access to care.

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Eating Disorders Management Plan

CoPPCAP developed an Eating Disorders Management Plan for use in Primary Care settings to help provide psychoeducation & actionable items providers, caregivers, and patients can take after identifying eating disorder concerns.



Eating Disorders Action Plan For Primary Care Providers

Fill out this plan in collaboration with patients and their families, and keep for follow up. Give the pages that follow to patients and families to keep.

For: _____ Date: _____ Provider: _____ Provider's Phone Number_____

No Significant Eating Disorder Concerns

- **Eating Behaviors:** Regular meals and snacks; no significant food restriction, binge eating, purging, or compensatory behaviors.,
- **Physical Health:** Stable growth and weight trajectory; normal energy levels; no significant medical concerns related to eating.
- **Thoughts & Feelings:** Occasional concerns about appearance that do not impact eating or functioning.
- **Functioning:** Participates fully in school, sports, family activities, and peer relationships.

My Eating Disorders Action Plan (Provider: Check one or more strategies discussed and follow up plan):

□ Learn the signs of eating disorders:_____
□ Practice balanced eating habits:_____
□ Build positive body image skills:_____
□ ontinue healthy family support:_____
□ Follow-up plan:_____

Moderate Eating Disorder Concerns

- **Eating Behaviors:** Some food restriction, rigid food rules, skipped meals, emotional eating, occasional binge episodes, or increased concern about weight or shape.
- **Physical Health:** Mild weight changes, decreased energy, dizziness, stomach complaints, or slowed growth.
- **Thoughts & Feelings:** Frequent concerns about food, weight, appearance, or body shape.
- **Functioning:** Some interference with school, family meals, social activities, sports, or peer relationships.

My Eating Disorders Action Plan (Provider: Check one or more strategies discussed and follow up plan):

□ Learn the signs of eating disorders:_____
□ Eastablish regular meals and snacks:_____
□ Challenge unhelpful thoughts:_____
□ Referral to behavioral health and/or dietitian:_____
□ Follow-up plan:_____

Significant Eating Disorder Concerns

- **Eating Behaviors:** Significant food restriction, frequent binge eating, purging, use of laxatives, compulsive exercise, or rapid weight changes.
- **Physical Health:** Medical instability, significant weight loss, fainting, dehydration, fatigue, electrolyte concerns, slowed growth, or menstrual irregularities.
- **Thoughts & Feelings:** Persistent preoccupation with weight, shape, calories, food, or fear of weight gain.
- **Functioning:** Significant impairment at home, school, sports, social activities, and family relationships.

My Depression Action Plan (Provider: Check one or more strategies discussed and follow up plan):

□ Immediate medical evaluation:_____
□ Increase meal supervision and support:_____
□ Refer to specialized eating disorder treatment:_____
□ Safety plan and monitoring:_____
□ Follow-up plan:_____

click the image above to access the full Eating Disorders Management Plan

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Colorado and National Resources

- **National Alliance for Eating Disorders (The Alliance):** Offers a comprehensive treatment directory, free helpline, virtual and in-person support groups, education, and more. https://www.allianceforeatingdisorders.com/ Helpline: +1 (866) 662-1235

- **National Eating Disorders Association (NEDA)**: Offers a helpline, screening tools, and a directory of treatment providers. Website: www.nationaleatingdisorders.org

- **Academy for Eating Disorders (AED)**: Professional organization with resources for clinicians and families. Website: https://www.aedweb.org/home

- **National Association of Anorexia Nervosa and Associated Disorders (ANAD)**: Provides information and support. Website www.anad.org

- **Mental Health Colorado**: A mental health nonprofit specifically for our local community. Has spearheaded eating disorder specific legislative and regulatory efforts. https://www.mentalhealthcolorado.org/

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