Common Eating Disorders in the Primary Care Setting

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Educational Objectives

By completing this educational activity, the participant should be better able to:

1. Describe the most common eating disorders in teenage and young adult patients.
2. Identify potential medical complications of common eating disorders.
3. Recognize the role of the medical provider in treating patients with eating disorders.

Speaker Disclosure

Dr. Monge disclosed that she has no financial relationships with any ineligible organizations or commercial interests.

COMMON EATING DISORDERS IN PRIMARY CARE

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DISCLOSURES

I have no financial disclosures with any commercial interest.

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OBJECTIVES

1. Describe the most common eating disorders in adolescents and young adults.
2. Identify potential medical complications of common eating disorders.
3. Recognize the role of the medical provider in treating teenage patients with eating disorders.

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AUDIENCE POLLING QUESTION 1

In the past 2 years have you and/or your practice seen an increase in patients with eating disorders?

1. YES
2. NO

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COVID-19 AND EATING DISORDERS

- Average 48% increase in medical hospitalizations over the past 2 years[1]
- Countless anecdotal reports of increased diagnosis
- Many proposed contributors

[1]J Devoe D, Han A, Anderson A, Katzman DK, Patten SB, Soumbasis A, Flanagan J, Paslakis G, Vyver E, Marcoux G, Dimitropoulos G. The impact of the COVID-19 pandemic on eating disorders: A systematic review. *Int J Eat Disord*. 2022 Apr 5:10.1002/eat.23704. doi: 10.1002/eat.23704.

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9 TRUTHS ABOUT EATING DISORDERS

1. **Many people with eating disorders look healthy, yet may be extremely ill**
2. **Families are not to blame, and can be the patients' and providers' best allies in treatment**
3. **An eating disorder diagnosis is a health crisis that disrupts personal and family functioning**
4. **Eating disorders are not choices, but serious biologically influenced illnesses**
5. **Eating disorders affect people of all genders, ages, races, ethnicities, body shapes and weights, sexual orientations and socioeconomic statuses**
6. **Eating disorders carry and increased risk for both suicide and medical complications**
7. **Genes and environment play important roles in the development of eating disorders**
8. **Genes alone do not predict who will develop eating disorders**
9. **Full recovery from an eating disorder is possible. Early detection and intervention are important**

Source: Academy for Eating Disorders; aedweb.org

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EATING DISORDER DIAGNOSES AND DEFINITIONS

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ANOREXIA NERVOSA

- Restriction of energy intake relative to requirements
- Low body weight in context of age, sex, development, physical health
- Intense fear of gaining weight or becoming fat which interferes with weight gain even at significantly low eight
- Undue influence of body weight or shape on self evaluation, denial of severity

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ATYPICAL ANOREXIA NERVOSA

- Restriction of energy intake relative to requirements
- ~~Low body weight in context of age, sex, development, physical health~~
- Intense fear of gaining weight or becoming fat which interferes with weight gain even at significantly low eight
- Undue influence of body weight or shape on self evaluation, denial of severity

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BULIMIA NERVOSA

- Recurrent binge eating
- Recurrent compensatory behavior to prevent weight gain (vomiting, laxatives, diuretics, enemas, exercising, etc.)
- Undue influence of body weight or shape on self evaluation

Restriction is almost always a feature

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BINGE EATING DISORDER

- Frequent binge episodes
- Lack of control during bingeing and feelings of distress
- Must have 3+
  - Eating much more rapidly than normal
  - Eating until feeling uncomfortably full
  - Eating large amounts of food when not feeling physical hungry
  - Eating alone due to feeling embarrassed by amount consumed
  - Feeling disgusted with oneself, depressed or very guilty afterwards

Restriction is almost always a key component

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AVOIDANT/RESTRICTIVE FOOD INTAKE DISORDER (ARFID)

- Lack of interest in food or concern about adverse consequences of eating
  - Results in significant weight loss and nutritional deficiency which cannot be attributed to another cause
- No weight or body shape concerns

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SPECIAL POPULATIONS

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DIVERSE PATIENTS

- **Well documented challenges of diagnosis, study and treatment of ED in patients who do not present as thin, white, wealthy, cis-gender, heterosexual female**
  - Cisgender men
  - Gender and sexual minority persons
  - Persons of color
  - Food insecurity
  - Bigger body size
- **Known risk factors for ED**
  - Economic and housing instability
  - Social marginalization
  - Psychological distress

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CASE 1: ED

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"WE ARE WORRIED."

- Ed is a 15-year-old male who is brought to clinic by his mother.
  - Decreased intake over the past 3 months
  - Going to the gym more often
  - Noticeably losing weight
  - Family notices more irritability and increased anxiety
- Prior medical history
  - Generally healthy, no medications
  - Last BMI between 50-75%ile for age

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"I DON'T HAVE AN EATING DISORDER, IF THAT'S WHAT YOU THINK."

- During COVID restrictions
  - "Get healthy"
  - Fitness app on phone; tries for "negative" balance every day
  - Estimates 1250-1500kcal/day
  - 1-2 hours of exercise per day
  - No vomiting, diet pills, laxatives or diuretics
  - Completely asymptomatic "feels fine" by his report

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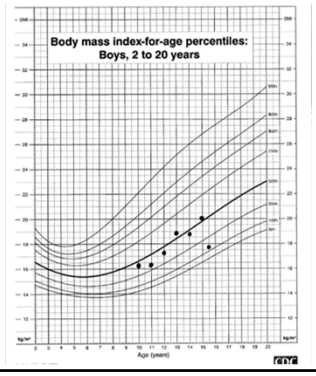

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AUDIENCE POLLING QUESTION 2

Based on this brief history and growth chart, how concerned are you?

1. Not concerned: He is asymptomatic
2. Slightly concerned: His weight has dropped
3. Moderately concerned: Way too little food
4. Extremely concerned: 2+3 and family observations
5. To early to tell, need more information

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EXPERT TIP

- Growth charts are a critical tool in eating disorder diagnosis and management.

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EXPERT TIP

- During adolescence body mass should continue to increase even if height accrual has ceased.

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ADDITIONAL HISTORY

- Ed knows that he has lost weight, but his focus is really on building muscle and "getting ripped".
  - ED specific ROS → **reports ONLY when asked**
    - Fatigue
    - Positional dizziness
    - Constipation
    - Post-prandial abdominal pain
    - Cold intolerance
    - Decreased libido
    - Worsening mood
    - Increasing anxiety

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EXPERT TIP

- A targeted, eating disorder-specific ROS can be very enlightening and help patients/families understand starvation physiology.

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FOR REFERENCE (ED SPECIFIC ROS)

General
Fatigue
Dizzy/Lightheaded

HEENT
Parotid pain/swelling
Dental Caries
Angular Chelitis

CV
Chest pain
Palpitations
Positional dizziness

GI
Abdominal pain
Reflux
Bloating
Early satiety
Constipation

Endocrine
Cold intolerance
Hair thinning
Menstrual irregularity
Low libido
Hot flashes

Extremities
Edema
Stress fractures

Derm
Poor wound healing
Easy bruising
Dry Skin

Psych
Anxiety
Irritability
Difficulty concentrating
Mood concerns

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NOTABLE EXAM FINDINGS

- Vitals
  - BMI: 17.6 (10th-15th%ile)
  - Resting supine HR: 46
  - Orthostatic BP:
    - lying 102/64 HR 49 → standing 98/66 HR 62
  - T: 97.6F
- Remainder of exam
  - Cool extremities
  - Scaphoid abdomen, decreased bowel sounds

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AUDIENCE POLLING QUESTION 3

Other than low weight, what is the most common physical exam finding in patients with restrictive eating disorders?

1. Thinning hair
2. Joint swelling
3. Enlarged thyroid
4. Bradycardia
5. Hypoactive bowel sounds

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FOR REFERENCE (ED SPECIFIC PHYSICAL EXAM)

Vitals
Height
Weight (backwards)
Pulse
Orthostatic BP and HR
Temperature

HEENT
Parotid swelling
Dentition

CV
Cardiac exam
Perfusion
Edema

GI
Abdominal exam

Derm
Lanugo
Xerosis
Scrapes/cuts

Psych
Anxiety
Irritability
Difficulty concentrating
Mood

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EXPERT TIP

- A completely normal physical exam does not exclude an eating disorder.

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AUDIENCE POLLING QUESTION 4

Based on this additional information, how concerned are you?

1. Not concerned
2. Slightly concerned
3. Moderately concerned
4. Extremely concerned
5. Need more information

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AUDIENCE POLLING QUESTION 5

What would you do next?

1. Refer to nearest eating disorder facility for evaluation
2. Discuss ways to increase calories, refer to dietician, see in 1 week for follow-up
3. Refer for cognitive behavioral therapy, see in 1 month
4. Start SSRI and refer to dietician, see in 1 month
5. Reassure Mom that current behaviors are healthy

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EXPERT TIP

- In a medically stable patient, time can be a diagnostic tool.

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ROLE OF THE PHYSICIAN IN TREATMENT OF PATIENTS WITH EATING DISORDERS

- **Medical monitoring**
  - Weight and vital sign checks every 1-4 weeks
  - Growth and development
  - Menstrual assessment
  - Lab monitoring as indicated
  - Bone health assessment
  - Exercise restrictions and return to sport
  - Overall progress
- **Symptom management**
  - GI symptoms (constipation, reflux, bloating, etc.)
  - Anxiety
  - Mood
- **Connection to Treatment**
  - Outpatient resources
  - Recommendations for more support if stalled progress

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RECOMMENDED INITIAL LAB EVALUATION

- **All patients**
  - Electrolytes including Ca, Mg, Phos
  - Liver and kidney function
  - CBC
  - UA and hcg
  - +/- free T3
  - Vitamin D
  - EKG
  - Bone density (depending on duration of disease)
- **Unsure of etiology of weight loss**
  - Inflammatory markers
  - Celiac panel
  - Thyroid testing
  - Other testing based on signs/symptoms

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RECOMMENDED ONGOING LAB EVALUATION

- For patients who are renourishing
  - CMP, Mg, Phos
    - Follow weekly
      - If weight is trending up/intake is increasing consistently, once normal x 3-4 weeks, can change to as needed
      - If weight stalls or starts to decline amidst renourishing, resume weekly labs until stable
      - If new symptoms, repeat
  - No role for ongoing CBC, TFTs, etc., unless specific questions

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CASE 2: ANNA

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"SHE IS PASSING OUT"

- Anna is a 16.5-year-old who is brought to clinic by her parents who are concerned that she has passed out twice in the past week.
  - Feels weak and dizzy when she stands
  - Parents have noticed her eating less
  - Feels good about weight loss because she used to be overweight
- Review of medical chart
  - 15 yo WCC: BMI 90th%
  - 16 yo WCC: BMI 75-85%

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I WAS OVERWEIGHT AND I WAS TRYING TO BE HEALTHY

- Started dieting about 7 months ago
- Tries to eat 500kcal/day or less
- Runs 30 min/day, Ab exercises 30 min/day
- If goes over 500kcal/day, vomits after dinner
  - 2x/week
- Has received a lot of positive comments about her weight loss

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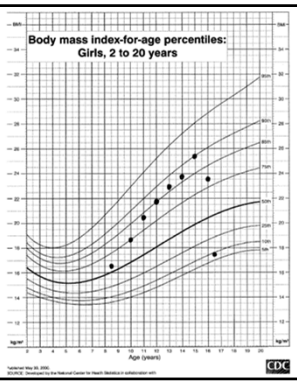

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AUDIENCE POLLING QUESTION 6

Based on this brief history and growth chart, how concerned are you?

1. Not concerned
2. Slightly concerned
3. Moderately concerned
4. Extremely concerned
5. To early to tell, need more information

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EXPERT TIP

- In dieting patients, ask about purging and be specific.

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A WORD ABOUT PURGING

- Purging is a common compensatory behavior
  - Exercise (probably most common)
  - Vomiting
  - Laxatives
  - Diuretics
- Bulimia involves *both* bingeing and purging
- In patients who restrict calories, vomiting can be very dangerous
  - Less likely to replete electrolytes
  - Electrolyte abnormalities can exacerbate medical complications of patients with anorexia

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DIETING… THE SLIPPERY SLOPE

- Not all patients who diet develop an eating disorder, but most patients with an eating disorder started by dieting.
- Thoughts about body weight/shape start early[1]
  - 42% of 1st-3rd grade girls want to be thinner
  - 81% of 10-year-olds are afraid of being fat
- Dieting statistics[2]
  - YRBS 47.7% of 9-12th graders trying to lose weight
  - Early dieting and extreme weight control behaviors predictive of later eating disorders

[1]www.nationaleatingdisorders.org/get-facts-eating-disorders
[2]http://www.cdc.gov/healthyyouth/data/yrbs/index.htm

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BEWARE THE DIET

- Most teens are very aware of their weight status
- Advice on weight reduction in overweight teens needs to be done carefully.
- Remember eating disorders impact adolescents of all sizes.

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REVIEW OF SYSTEMS

- **Gen**: fatigued, not sleeping well, difficulty concentrating (though grades all As)
- **Psych**: feels anxious and overwhelmed, passive SI
- **HEENT**: frequent headaches
- **Endo**: cold most of the time
- **GYN**: no period in 3 months
- **GI**: no appetite, post-prandial abdominal pain, constipation, reflux

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EXAMINATION

- **Vitals**:
  - BMI: 17.5 (<10th%ile)
  - Resting supine HR: 38
  - Orthostatics: 90/58 HR 38 → 84/48 HR 70 (dizzy)
  - T: 97.1F
- **Remainder of exam**:
  - Notable for flat affect, muscle wasting, dry skin, thin hair, lanugo, cool extremities, scaphoid abdomen, bradycardia

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AUDIENCE POLLING QUESTION 7

What is your next step?

1. Refer to nearest eating disorder program to start as soon as possible.
2. Express serious concern and plan to admit to the hospital for medical stabilization.
3. Discuss ways to increase food intake, decrease exercise, refer to dietician and see back in 1 week.
4. Recommend cognitive behavioral therapy, start an SSRI and see back in 3 days.

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EXPERT TIP

- Know indications for immediate higher level of care.

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RECOMMENDATIONS FOR HOSPITAL ADMISSION

	SAHM	AAP	APA
Weight	≤ 75% mBMI for age/sex	≤ 75% MBW <10% body fat	<85% healthy weight Acute weight loss and food refusal
HR	<50 day <45 night	<50 day <45 night	Near 40 >110
BP	<80/50	Systolic <90	<80/50
Orthostatic changes	>20 HR >20 SBP >10 DBP	>20 HR >10 SBP	>20 HR >20 SBP
EKG abnormalities	QTc prolongation, severe bradycardia		
Temperature	<96°F	<96°F	<97°F
Electrolytes	Low K, PO4, Na	K<3.2 Cl <88	Low K, PO4, Mg
Other considerations	Any acute medical complication of malnutrition, failure of outpatient, acute food refusal, uncontrollable binge/purge	Failure of outpatient	Poor motivation to recover

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AUDIENCE POLLING QUESTION 8

What is the most common lab abnormality in patients with restrictive eating disorders?

1. Anemia
2. Hypoglycemia
3. Hypokalemia
4. Subclinical hyperthyroid
5. Elevated Cr
6. None

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AUDIENCE POLLING QUESTION 9

What is the most common lab abnormality in patients with binge/purge eating disorders?

A. Anemia
B. Hypoglycemia
C. Hypokalemia
D. Subclinical hyperthyroid
E. Elevated Cr
F. None

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NOTABLE LABS

- H/H 12.0/35.4 MCV 83
- **WBC 3.0 (low)**
- Na 142 K 3.8
- **BUN 29 (high) Cr 0.9**
- TSH 1.5 free T4 1.3 **free T3 1.8 (low)**

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REPRESENTATIVE LAB/TEST ABNORMALITIES

Lab/Test	Potential Abnormality	Mechanism
CBC	↓WBC	Bone marrow suppression
	↓Hgb	Nutritional deficiency
Electrolytes	↓Na	Excessive fluid, nutritional deficiency, impaired renal function
	↓K	Purging (vomiting, laxative, diuretic)
	↓PO4/Mg	Typically during refeeding
Renal function	Acute kidney injury	↑BUN – muscle breakdown, high protein diet, volume depletion ↑Cr (in context of muscle mass)
	Chronic kidney disease	Prolonged direct injury due to starvation
Liver function	↑LFTs in starvation and refeeding	Initial: Starvation physiology Refeeding: transient fatty liver infiltration
Thyroid	↓free T3, +/- ↓free T4	Sick euthyroid
ESR	Low	Starvation physiology
EKG	Sinus bradycardia, prolonged QTc	Starvation physiology, electrolyte derangement

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A WORD ABOUT MENSES

- Amenorrhea is typically due to hypothalamic suppression of HPO axis due to low energy availability and/or physiologic stress
- Prolonged amenorrhea
  - Bone health
  - Cardiovascular health
  - Mood concerns
- Menstrual return typically around 90-92% of median BMI for age
  - At least 3 months at minimum weight
- Consider bone neutral contraception if needed

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SCREENING

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FORMALIZED TOOLS

- **SCOFF** (Sick, Control, One, Fat & Food) (2+ positive)
  - Do you make yourself **SICK** because you feel uncomfortably full?
  - Do you worry you have lost **CONTROL** over how much you eat?
  - Have you recently lost more than 14lb (**ONE** stone) in a 3-month period?
  - Do you believe yourself **FAT** when others say you are too thin?
  - Would you say that **FOOD** dominates your life?
- **ESP** (Eating Disorder Screen for Primary Care) (3+ positive)
  - Are you satisfied with your eating patterns?
  - Do you ever eat in secret?
  - Does your weight affect the way you feel about yourself?
  - Have any members of your family suffered from an eating disorder?
  - Do you currently suffer with or have you ever suffered in the past with an eating disorder?

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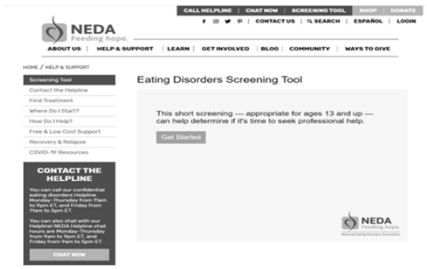
ONLINE SCREENING TOOL

nationaleatingdisorders.org/screening-tool



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TREATMENT

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MULTIDISCIPLINARY APPROACH

- Physician
- Therapist/Psychologist
- Dietician
- Psychiatrist
- Family/Friends

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EXPERT TIP

- Know your local resources and how to access them. Now resources are also virtual!

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SUMMARY

- Eating disorders are challenging for patients, families and physicians
- Remembering the role of the physician can help with comfort in evaluating and treating these patients
- Know when to escalate care and ask for help
- Familiarize yourself with resources and assemble a team
  - It takes a village!

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CONTACT

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RESOURCES FOR PATIENTS AND PHYSICIANS

- National Eating Disorders Association (NEDA)
  - www.nationaleatingdisorders.org
- Academy of Eating Disorders
  - www.aedweb.org
- Maudsley Parents
  - www.maudsleyparents.org
- F.E.A.S.T. (First 30 days)
  - www.feast-ed.org

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Notes