



ADVANCING INTEGRATED HEALTHCARE

Restrictive Eating Disorders ECHO®

Session 2: Medical Basics

Date: October 19th, 2023

PLEASE NOTE: Project ECHO case consultations do not create or otherwise establish a provider-patient relationship between any clinician and any patient whose case is being presented in a project ECHO setting

Care Transformation Collaborative of RI

Welcome

- This session will be recorded for educational and quality improvement purposes
- Please do not provide any protected health information (PHI) during any ECHO session

- Please turn on your video
- Please enter your name and organization in the chat box

Introduce Yourself



- Please mute your microphone when not speaking

Microphones



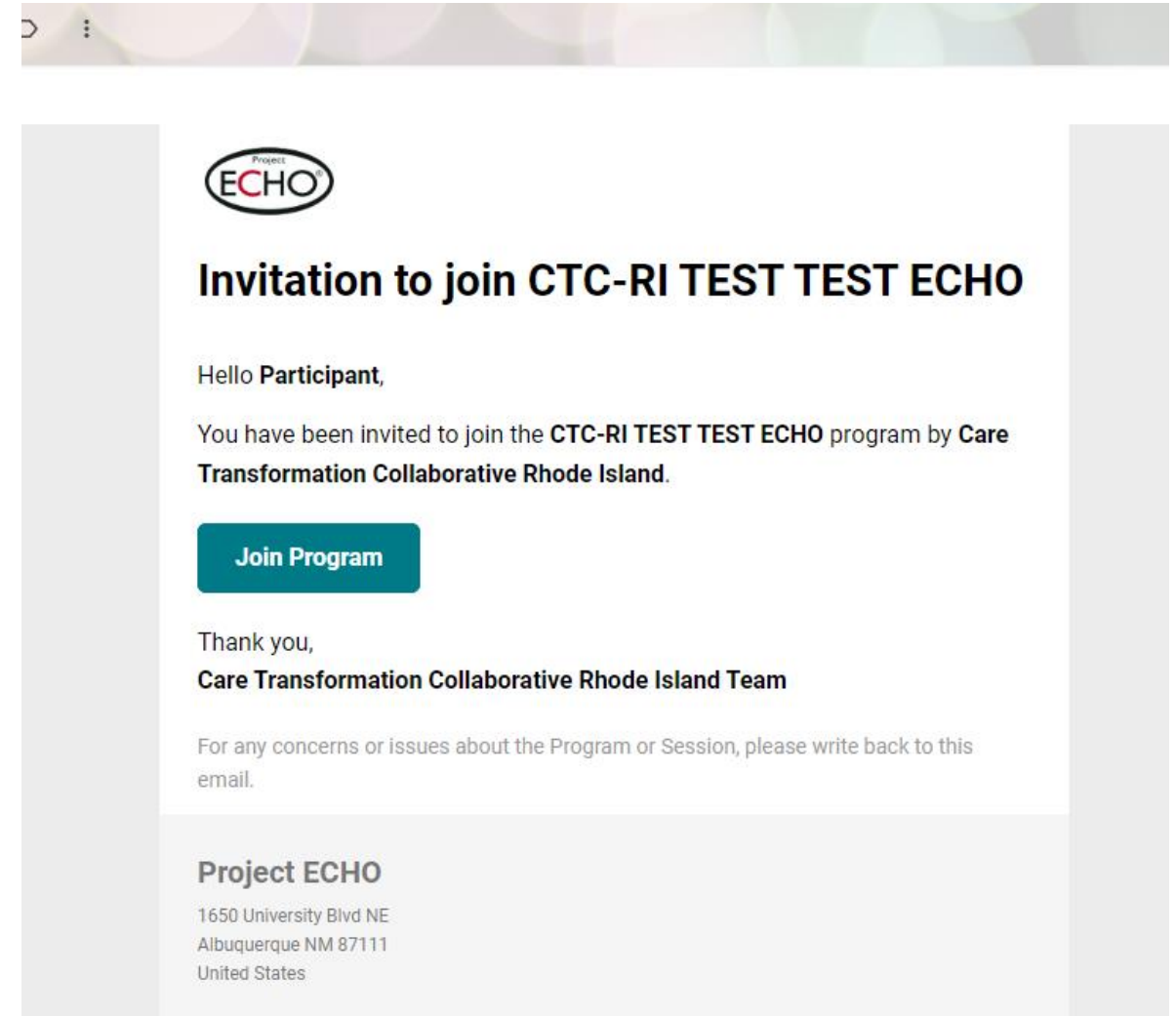
Agenda

Time	Topic	Presenter
7:30 – 7:40 AM	Welcome iECHO & CME update	Liz Cantor Linda Cabral
7:45 – 8:45 AM	Medical Basics	Dr Abigail Donaldson
8:45 – 9:00 AM	Q&A	Dr Abigail Donaldson

Transition to iECHO Platform

Restrictive Eating Disorders will be transitioning to the iECHO platform beginning in November.

- You will receive an email from iECHO to create an account to access this ECHO series.
- You will need to register in order to get the Zoom link for the meeting.
- Our current Zoom link will expire.



The screenshot shows an email invitation from Project ECHO. At the top left is the Project ECHO logo. The main heading is "Invitation to join CTC-RI TEST TEST ECHO". Below this, it says "Hello Participant," followed by "You have been invited to join the CTC-RI TEST TEST ECHO program by Care Transformation Collaborative Rhode Island." A prominent teal button labeled "Join Program" is centered. Below the button, it says "Thank you, Care Transformation Collaborative Rhode Island Team". At the bottom, there is a footer section for "Project ECHO" with the address: "1650 University Blvd NE, Albuquerque NM 87111, United States".

CME Credits – Under Review

(applied for MDs, PAs, Rx, RNs, NPs, PhD)

- BH clinicians can submit their certification to their accrediting agency for credit equivalency
- CME Credits – Please request session credits when filling out the evaluation at the end of the meeting.
- Evaluation/Credit Request Form: <https://www.surveymonkey.com/r/RSKN6W9>
- Evaluations must be completed to receive credit
- Certificates will be mailed ~ 1 month after event



Presenter Introduction



Abigail A. Donaldson, MD

Dr. Donaldson received her medical degree from the University of Vermont College of Medicine. She pursued residency in Pediatrics at the University of Medicine and Dentistry of New Jersey/Rutgers and subsequently completed a fellowship in Adolescent Medicine in the LEAH (Leadership and Education in Adolescent Health) program at the Johns Hopkins School of Medicine. She is board certified in both Pediatrics and Adolescent Medicine. Dr. Donaldson is an Associate Clinical Professor of Pediatrics at The Warren Alpert Medical School of Brown University. She is the Division Director of Adolescent Medicine at Hasbro Children's Hospital. She is also the Medical Director of the Hasbro Eating Disorders Program, and a certified medical specialist in eating disorders by the International Association of Eating Disorder Professionals. She participates in multiple clinical programs within the Division of Adolescent Medicine, including inpatient and outpatient eating disorder care, GYN consultation, and adolescent primary care.

Eating Disorder Basics in Primary Care



October 19, 2023

Abigail Donaldson, MD

(she/her)

Associate Clinical Professor of Pediatrics, Warren Alpert Medical School Brown University

Division Director, Adolescent Medicine

Medical Director, Hasbro Children's Hospital Eating Disorders Program



BROWN
Alpert Medical School



Hasbro Children's Hospital
The Pediatric Division of Rhode Island Hospital
A Lifespan Partner

What you have learned already

- Eating disorders (ED) are brain-based illnesses, not choices
- Easy-to-use screening tools are effective and can support timely recognition of ED's
 - SCOFF Questionnaire
 - EDE-Q
- Intervention strategies are available to engage and support patients/families across stages of ED treatment
- A team-based approach to care is best

Pre-existing risk factors
Acute stressors → demand for coping mechanisms



Cognitive Disturbance:
over-valued idea of thinness/muscularity/weight control



Behavioral Disturbance:
temporary reward from weight loss, control over food, bingeing
and/or purging



Medical, Emotional, Social, Developmental Outcomes and Consequences

Today will focus on medical considerations in assessment and care

- Primary care provider lens
 - From the exam room in the middle of clinic, what are the next steps
 - Case-based approach to concepts
- 20-30 min for Q&A

Objectives & Disclosures

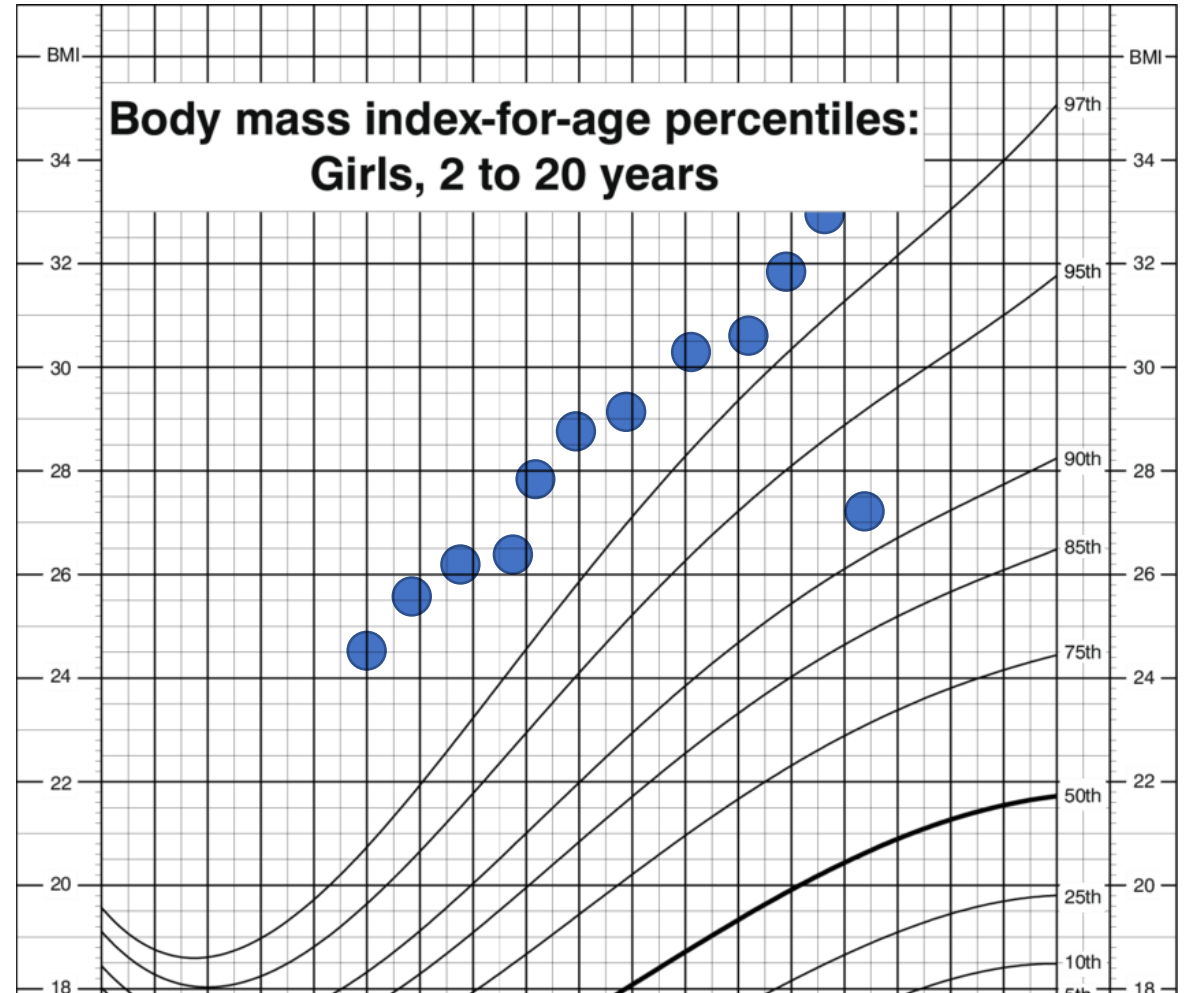
- Identify “red flags” for ED in the primary care setting
- Outline the general medical assessment and differential diagnoses in suspected ED
- Describe the components of a basic treatment plan from medical provider’s standpoint
 - Estimating goal treatment weight
 - Common complications
 - Indications for medical admission
- No Disclosures

These are extremely serious illnesses that present in late childhood/adolescence

- Best prognosis: early identification, long-term follow up
- 4-5% mortality across all EDs
 - Highest in AN
 - AN: 20% by suicide
- Anorexia Nervosa
 - 50% recovery
 - 20% chronicity
- Bulimia Nervosa
 - 50% recovery
 - 25% chronicity

Case 1: Ani

- 16yo non-binary female assigned at birth (they/them)
 - Anxiety
 - BMI \geq 97th %ile
- Presents for ankle sprain
 - Lost 45lb over 9 months since last visit to clinic
 - Vitals: HR 52, BP 86/48



Before you go in the exam room, what are you thinking?

- How did this happen so fast?
- What has the discussion of weight management been before?
 - Weight management discussed at each well visit and some sick visits
 - Balanced nutrition, regular exercise
 - At last clinic visit, discussed upcoming transition to college and young adulthood
 - Ani wanted to “really work on my weight”
 - Follow up: 1 year for well visit
- How am I going to manage this in a 15 min sick visit?

When you go in the room, what else do you want to know from Ani and their parent?

- Weight loss: intentional and ongoing
 - goal to get to 135lb (BMI 50th %ile)
 - Seeking “straight lines”
- Calorie counting: <1500 kcal/day
- Exercising: 2-3 hours/day
 - Cardio & weights, walking
- Spends “the entire day” thinking about food and exercise
- Reports they will “never go back” to being in a larger body
- Mother: generally pleased with weight loss, but worried that Ani is not eating enough to keep up with their exercise regimen

Ani

- ROS:

- Tired, cold intolerance
- Constipation
- No menses in 4 months

- Vitals:

- HR 52
- BP 86/48
- Orthostatic by HR (change of 45 bpm from lying → standing)

- Exam

- Warmly dressed, low energy, tearful
- Feet cool & pale, 5 second capillary refill
- Left lateral ankle with edema, tenderness, bruising extending to dorsum of foot
- EKG sinus bradycardia (49 bpm)

Under-recognized and marginalized populations can present with more severe ED

- Trans/gender diverse individuals among the highest risk
 - 63% reported manipulating weight to affirm gender identity
- Less likely to be diagnosed/treated:
 - Racial/ethnic minorities
 - Men
- Anorexia:
 - 3rd most common adolescent chronic illness
 - 2nd highest mortality of any mental illness

Riddle & Safer, *J of Eat Disord* 2022; Marques et al. *Int J Eat Dis* 2011, 44(5); Gordon et al. *Beh Therapy* 2006, 37(4); Diemer et al. *J of Adol Health* 2015, 57(2); Zhao et al; HCUP Statistical Brief #120, 2011 at <http://www.hcup-us.ahrq.gov/reports/statbriefs/sb120.pdf>; NEDA (www.nationaleatingdisorders.org); www.anad.org; www.nationaleatingdisorders.org; Hudson et al, *Biol Psychiatry*. 2007;61(3); Keski-Rahkonen et al., 2007; Eagles et al., 1995; Striegel-Moore, 1997; Lucas et al., 1991; Robinson et al, 1996; Tsai et al, 2003; APA, 2000; Arch Gen Psych 2006;63:305-3120; Psychol Med 2001;31:737- 740; Mol Psychiatry 2003;8:397-406; Hum Mol Gen 2004;13:1205-1212; S White et al. (2011). Disordered eating and the use of unhealthy weight control methods in college students: 1995, 2002, and 2008. *Eating Disorders*, 19(4), 323-334;

Energy implications of gender affirmation

- Lifestyle

- Muscle & fat distribution

- Physical/Emotional function

- Reproductive
 - Bone density
- Minority stress

- Medications

- GnRH analogues
- Testosterone
- Estradiol
- Depo Provera

- Surgery

- Breasts
- Genitals
- Facial feminization

Red flags and Risk Factors

- **Medical:**

- Rapid weight loss/BMI <17.5 kg/ m²
- Syncope
- Bradycardia
- Functional GI disorders
- Unexplained electrolyte disturbance
- Type 1 Diabetes
- Cystic Fibrosis

- **Family:**

- First degree relative

- **Lifestyle:**

- Activities: aesthetic, weight-based, high visibility
- Diet/exercise fads
- Points of transition, disruption, crisis

Information-Gather

- **Personal History**

- Growth history—height, weight
- Body image
- Triggers for ED thoughts/behaviors
- Calorie counting
- Diet pills, laxatives, diuretics, stimulants, etc.
- Eating habits—patterns/rules
- Medical History

- **Family History**

- ED
- Psychiatric illness
- Substance abuse
- Medical illness

- **Social History**

- Social withdrawal/ isolation
- Avoids eating with family
- Increased interest in cooking/food
- Abrupt changes in physical activity

How much weight loss is too much?

- Rapid weight loss:
 - >7.5% lost in <3 months
 - >10% in <6 months
 - > 20% in <1 year
- <75% goal weight
 - <70 % severe

Not everything that could be ED is ED

Medical

- Inflammatory Bowel Disease
- Celiac disease
- Addison's disease
- Hyper/hypothyroidism
- Hypopituitarism
- Diabetes mellitus
- Malignancy

Psychiatric

- Depression
- Anxiety
- OCD
- Schizophrenia
- Adjustment disorder—grief, stress

Don't we expect athletes to have low resting heart rates?

Yes, we do!

- BUT

- Ani has lost a large amount of weight in a short period of time
 - Not eating enough to support level of activity
- They are orthostatic
- They have an abnormal physical exam

→ this is not a conditioned athlete, this is a malnourished person

Review of Systems may be “pan-positive”

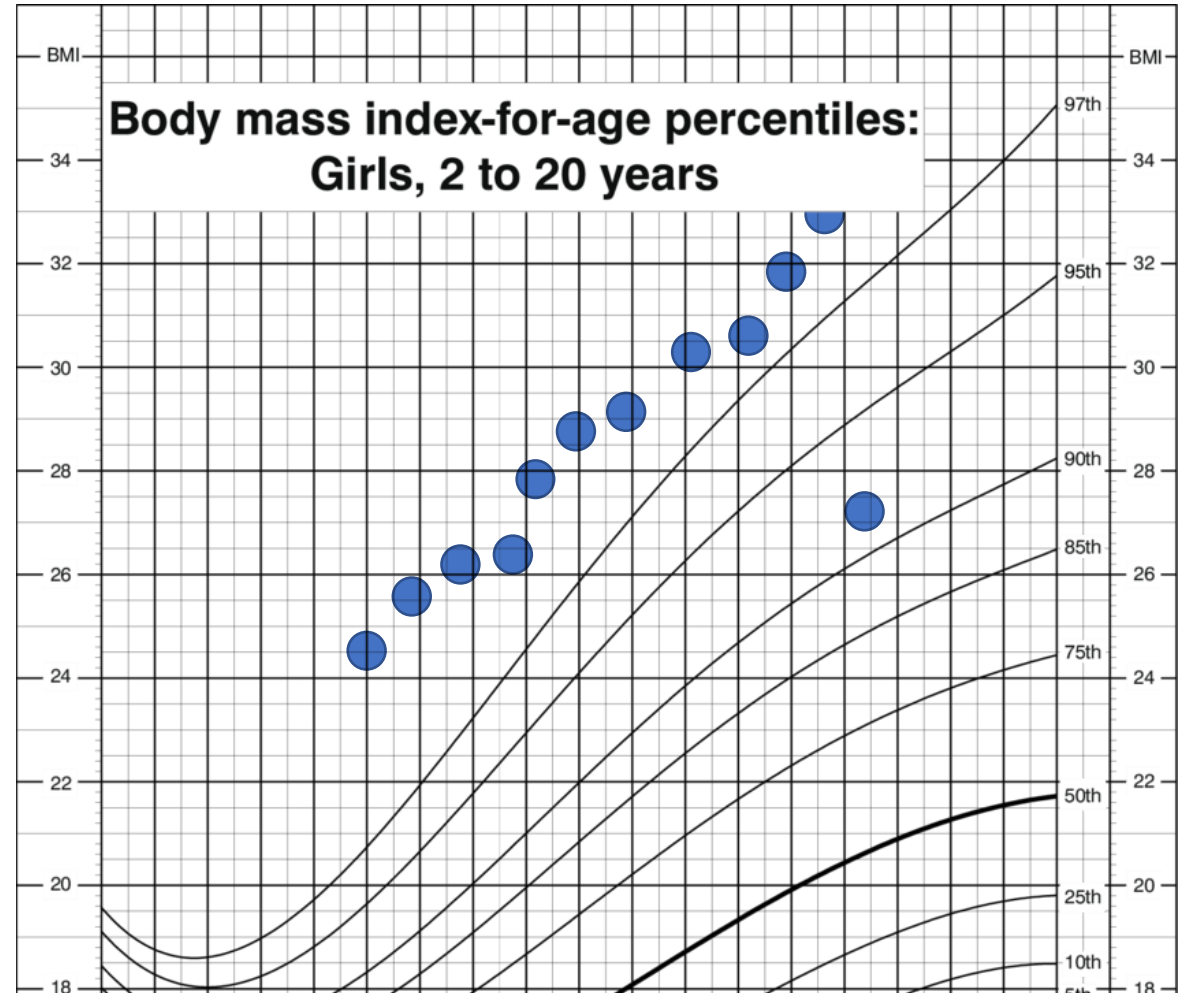
- **General:** abrupt weight change, tremors, weakness, cognitive function decline, confusion
- **HEENT:** dental enamel erosion, parotid hypertrophy, sunken temples/eyes, tinnitus
- **Cardiovascular:** cold extremities, acrocyanosis, dizziness, syncope, palpitations
- **Hair changes:** more on body, less on head
- **GI:** changes in appetite, reflux, nausea, vomiting, fullness, bloating, cramping, constipation, diarrhea, rectal bleeding
- **Skin:** dry/cracked skin, slow wound healing
- **Reproductive:** oligo/amenorrhea, decreased libido

Initial testing will support diagnosis, rule out other/contributing concerns

- Electrolytes (including Ca, Mg, PO4)
- Liver function tests
- Complete blood count
- Thyroid studies
- TTG/IgA and ESR
- Reproductive hormones:
 - LH, FSH, Estradiol (XX)
 - Testosterone (XY)
- Prolactin
- Amylase
- Vitamin D level
- Urine:
 - specific gravity
 - toxicology screen
 - pregnancy
- EKG
- DEXA if underweight >6months

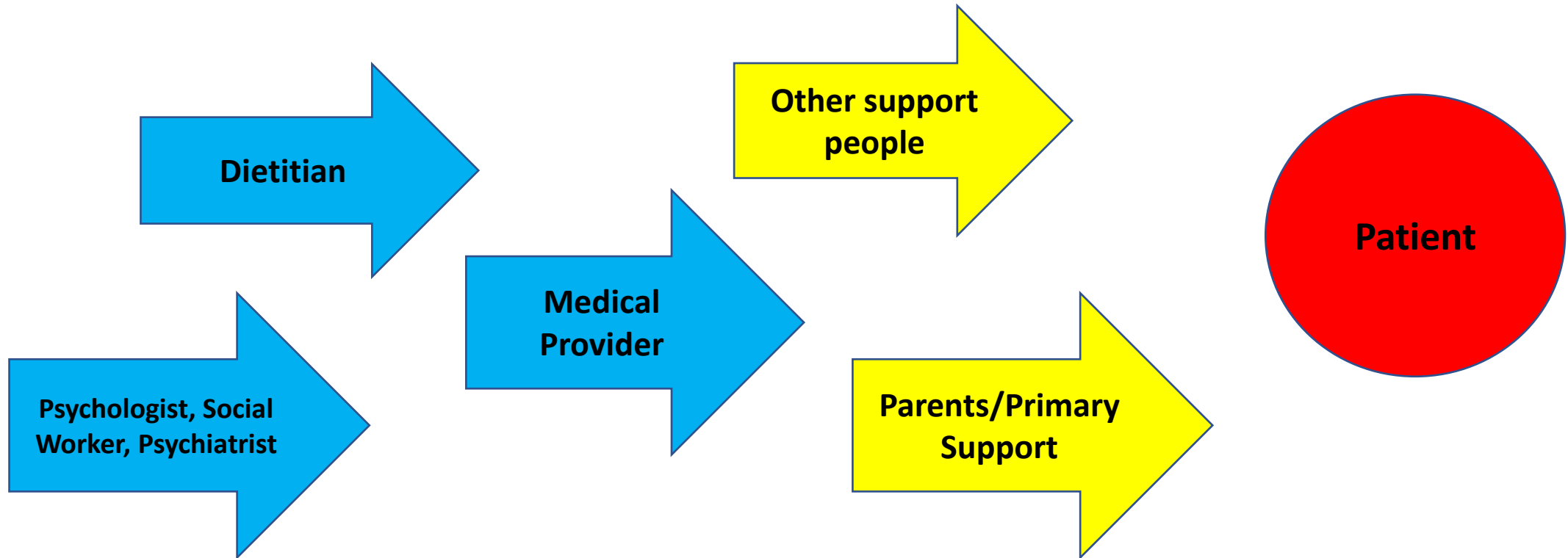
Ani

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What are the next steps in care?

Assemble the team



You will not be able to mobilize for care if you do not tell the patient you think they have ED

- Use the evidence to ground assessment and recommendations
- Clearly outline emotional/medical concerns
 - Try at home?
 - PHP/IOP/residential?
- Activate support system
 - Guardian/Primary support person
 - School/Work
 - Others

Medical Clinic basics

- Nutrition as prescription: “food is your medicine”
 - Recommendation for ED-informed RD
- Manage expectations for underlying anxiety, compulsions, low mood
 - May not improve until weight gain is well underway
- Discuss activity explicitly and honestly
- Acknowledge that weight gain might challenge gender identity
 - Therapy is key
- Regular visits in medical clinic
 - Collaborative vs blind weights
 - Vitals: HR, BP, and orthostatics

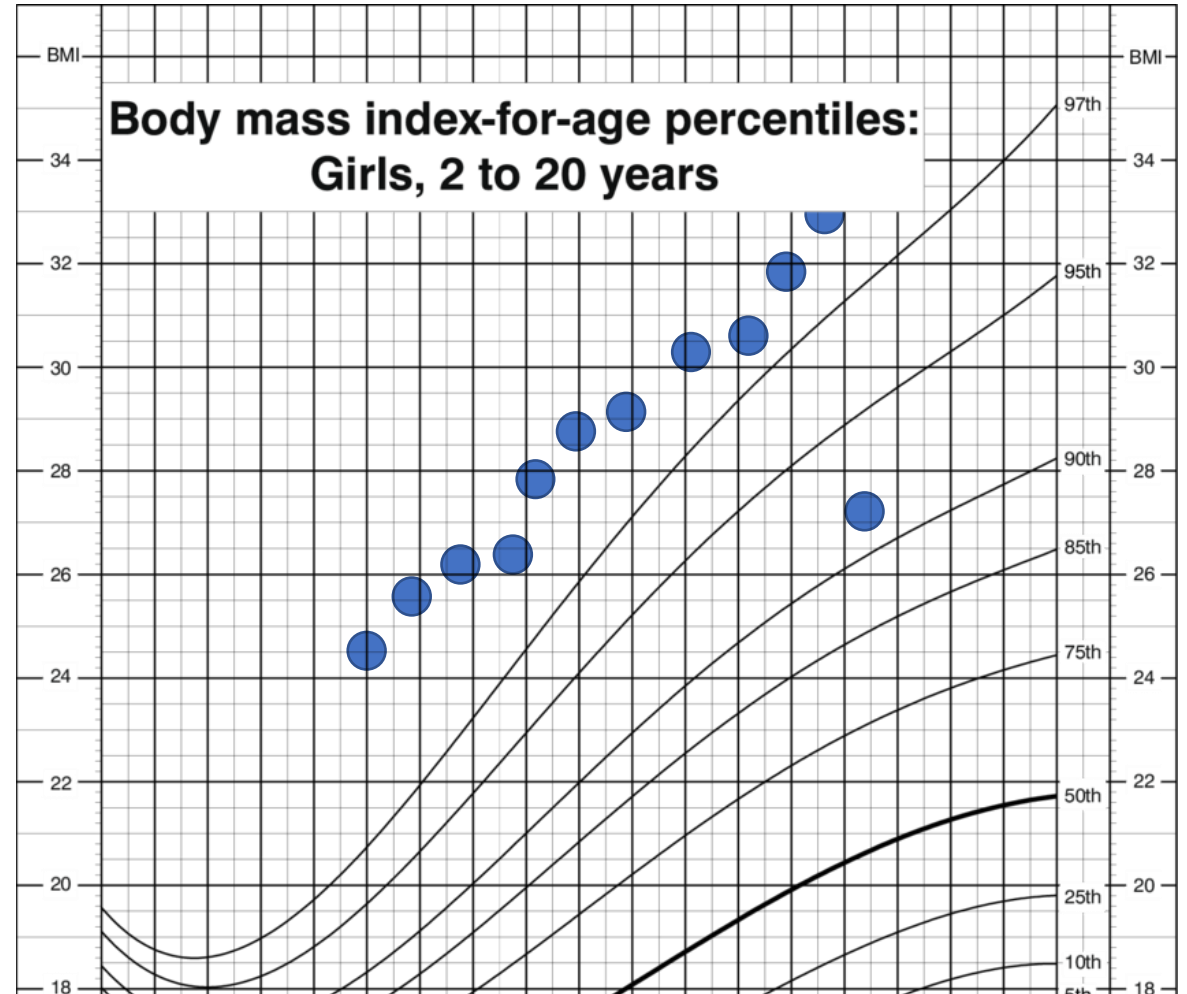
Pre-RD nutritional planning

- Nutrition recommendations
 - Increased support/accountability
 - 3 meals, 1-3 snacks daily
 - Balance, variety, eliminate “food rules”
 - Use motivators to support new habit-forming
- Work with options available within the support system
 - Nutrition access
 - Home vs school/work
 - Other support people
- Apps as support/sabotage
- Beware: health class, media messaging

If someone has a normal or higher BMI, how can you tell what a healthy weight should be?

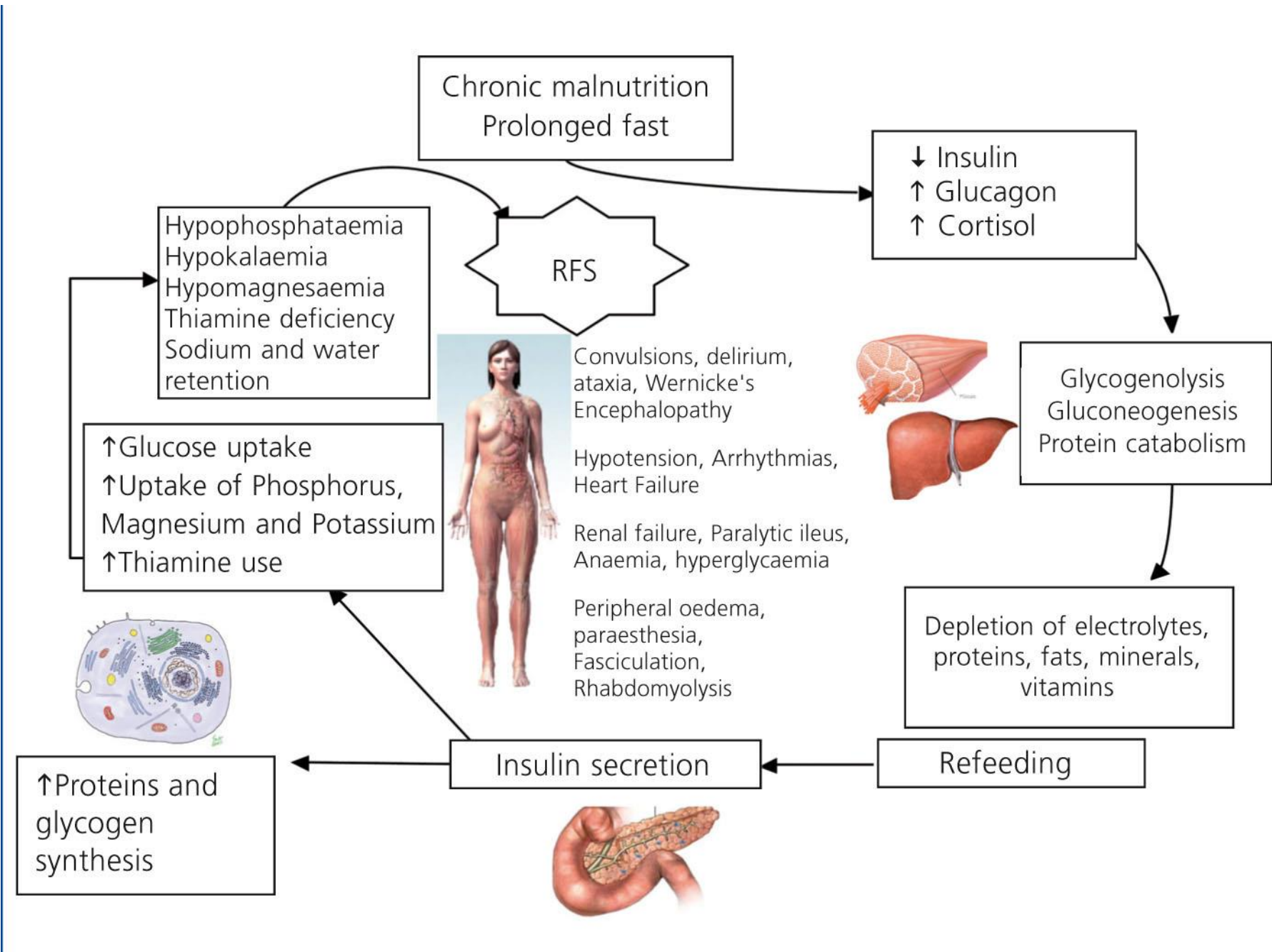
What goes into calculating a target weight?

- BMI is not a perfect measurement
 - Normal BMI is not a proxy for wellness
- Need to examine growth over time
 - Most of life: >97th percentile
 - Most recent prior: 5ft 7in tall, 215lb (BMI 33.7)
 - Now 170lb (BMI 26.6), 87th percentile
 - Lost 21% total body weight in 9 months
 - Consider: 50th percentile BMI
 - Gender diverse: which chart?
- Goal: return to 90-95th percentile
 - BMI of 30-32 kg/m² (200-205lb)
 - Currently 83-85% of estimated treatment goal weight
 - Continue to monitor medically/emotionally as they approach estimated goal



Building new nutritional habits is uncomfortable

- Constipation
 - Miralax PRN
- Reflux
 - Acid suppressant medications, TUMS
- Fullness/bloating/abdominal pain
 - Hot pads
 - Relatively low fiber diet for 1-2 months
 - Time/anticipatory guidance
- Edema
- Mood management



Be alert to when medical hospitalization might be the next step in care

- Physical instability

- HR <50 bpm in daytime, <45 bpm at night
- BP <80/50 mmHg
- Temp <97 F
- Orthostatic changes in pulse (>30 for 19+yo, and >40 for <19yo) or BP (SBP >20, DBP >10mmHg)

- Severe malnutrition

- <75% goal weight
- >7.5% lost in <3 months/>10% in <6 months/> 20% in <1 year

- Acute medical complication

- Arrested growth/development

- Failure of outpatient care

- Acute food refusal

- Co-morbid complicating conditions

Reflecting on Ani's trajectory,
what might have been different?

Questions or other comments?

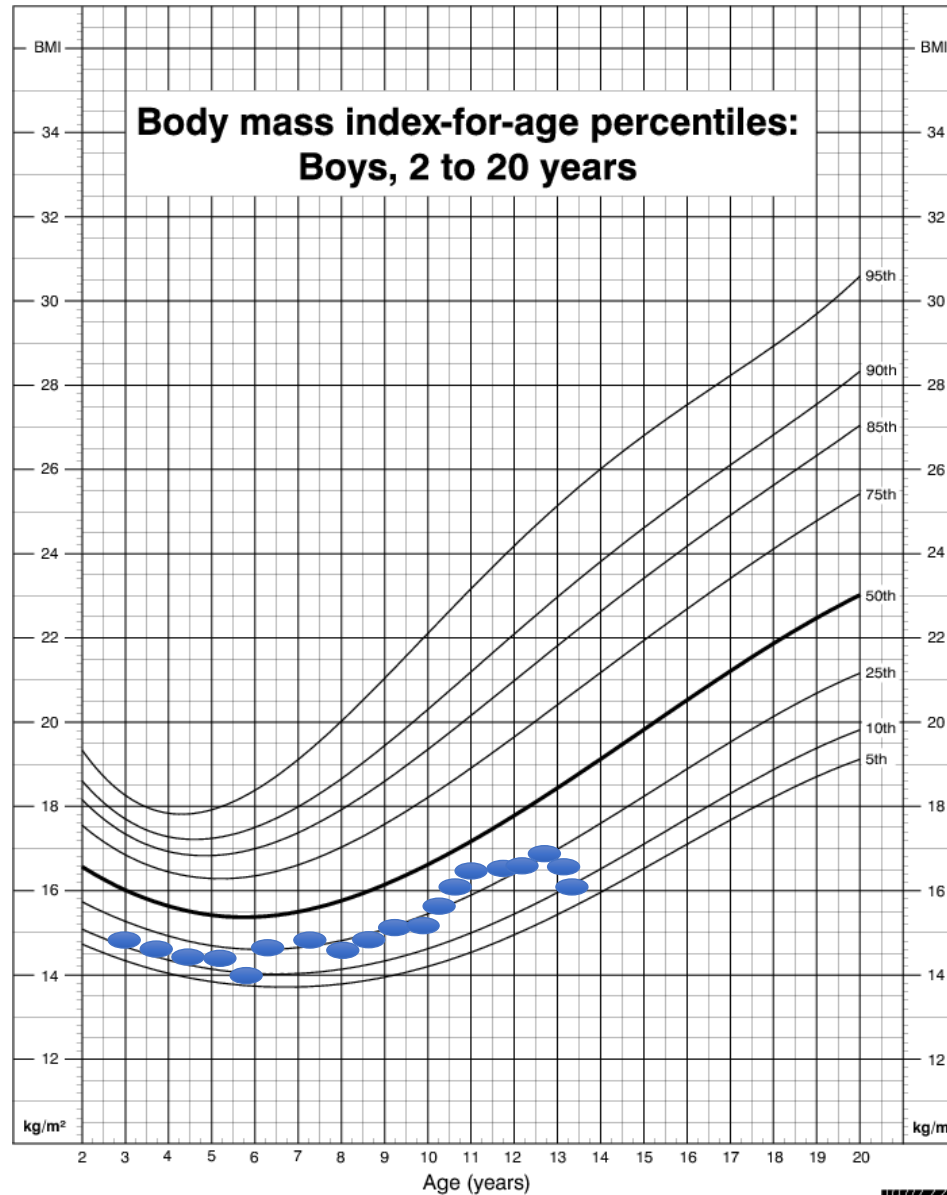
Case 2: Raul

- 13 yo cisgender male present to office for eating concerns
- Long-term low weight, “picky eater”
- Family is small, but predicted adult height is at the 25th percentile
- Had a GI illness a year ago, lingering abdominal pain and fear of vomiting since then
 - GI evaluation negative
 - No vomiting since illness resolved
 - Review of systems otherwise unremarkable
 - Missing school 3-4 days a month (last year was 1-2 per month)
- Started cross-country on high school team – 5 days/week
- Parents are worried
 - Feeding him whenever he is hungry, whatever he will eat

Additional history and physical exam

- 24 hour meal recall
 - ½ a biscuit with jam, banana
 - Chips
 - Gummy bears and 4 pretzel sticks
 - Pasta with olive oil
 - Two slices deli turkey, blow pop
 - A hot dog with ketchup and ½ bun, apple sauce
 - A popsicle
- Recently Raul is more reluctant to eat dairy as it makes him “feel weird”
- Wants to gain weight, bothered by small size
- Vitals and physical exam are unremarkable, other than small body habitus, Tanner I

CDC Growth Charts: United States



Published May 30, 2000.
SOURCE: Developed by the National Center for Health Statistics in collaboration with
the National Center for Chronic Disease Prevention and Health Promotion (2000).



What are next steps in care?

One month later

- Has seen therapist once, RD twice
- Running 2 days a week for 1 hour
- Still disorganized food intake, but “doing better” with breakfast, dinner
 - “We can’t make him eat things he is refusing”
 - Have tried Ensure, but he didn’t like it
 - Tried to implement school supervision but still waiting to hear from school re: plan
 - Focused on abdominal pain and ongoing nausea
- Lost 2lb over the last 4 weeks
- Vitals are stable and normal, feet cool but exam otherwise unremarkable
- What next?

It depends...

- Preferred plan:
 - Higher level of care (HLOC) support
- If HLOC unavailable:
 - Therapy as often as possible
 - Medical follow up every 1-2 weeks
 - Consider Speech/Language Pathology evaluation
 - Discontinue non-functional exercise
 - Explore school support options—504 plan
 - Consider medical admission for failure of outpatient care if weight loss continues
 - 5-6lb is 7.5%

Parents say he is eating more, but he is still losing weight

How could both be true?

The metabolism changes during refeeding process

- In a starvation state, the metabolism slows down
- With increased nutrition, the whole body turns “on”:
Hypermetabolism
- Nutrition gets quickly metabolized
 - Can be hard to keep up with caloric demand

Two weeks later

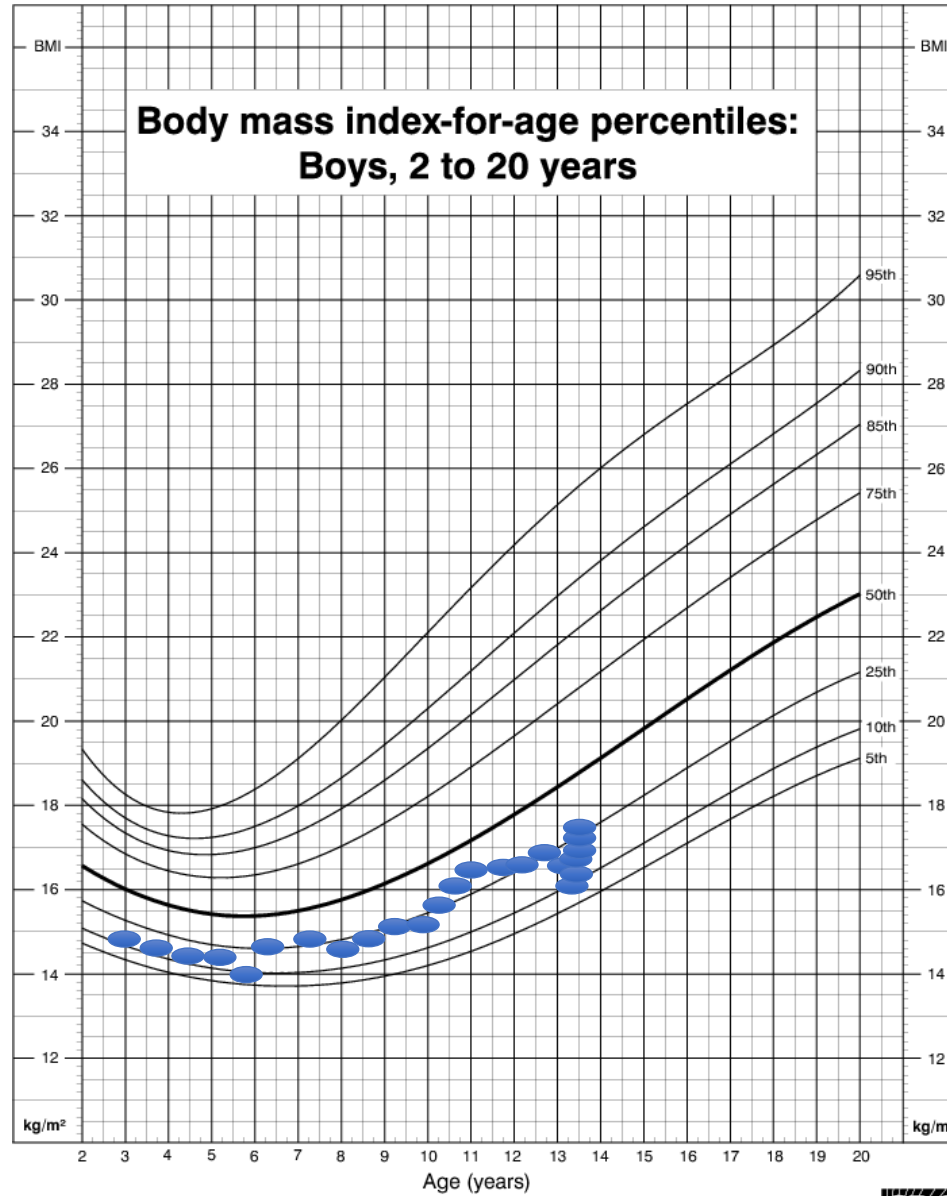
- Lost 2lb
- Refused to get in the car for therapy appointment yesterday
- Parents “trying everything and nothing is working”
 - Increased conflict between parents around how to best support child

Raul physical exam—pertinent positives

- **Vitals:** HR 65, BP 89/72, orthostatic by HR (increase 60 bpm from supine → standing)
- **General:** alert, interactive, somewhat flatter affect than normal
- **CV:** bradycardic regular rate and rhythm, acrocyanosis in bilateral feet, 2+ pedal pulses, 5 second capillary refill in toes, hands and feet cool
- **ABDOMEN:** hypoactive bowel sounds, soft, mild tenderness across bilateral lower quadrants without guarding/rebound, no palpable organomegaly or masses
- **SKIN:** dry throughout, bruising on bilateral lower legs

What are next steps in care?

CDC Growth Charts: United States



Published May 30, 2000.
SOURCE: Developed by the National Center for Health Statistics in collaboration with
the National Center for Chronic Disease Prevention and Health Promotion (2000).



How do we manage weight over time?

Weight Restoration

- The process of gaining weight over time towards healthy physical and emotional function
- Outpatient: 1-2lb per week
- Inpatient: ~ 0.5lb per day

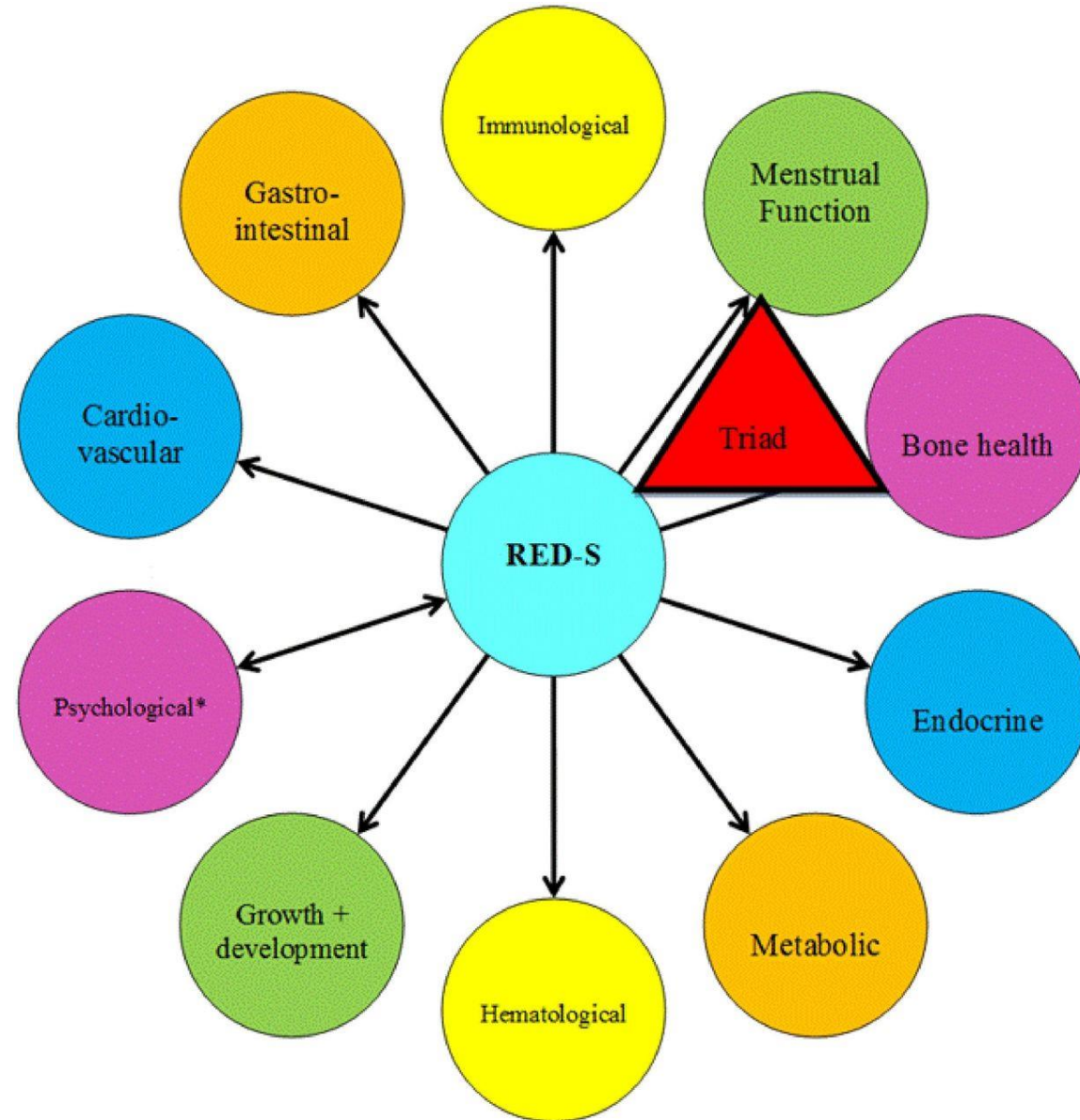
Weight Maintenance

- Long-term maintenance of nutritional behavior adequate to support developmentally appropriate weight over time
 - Younger adolescent: growth over time
 - Older adolescent: maintain
- Consider athletics, episodic illness, other metabolic stress
- Re-assess target weight along the way
 - Physical/emotional/social function

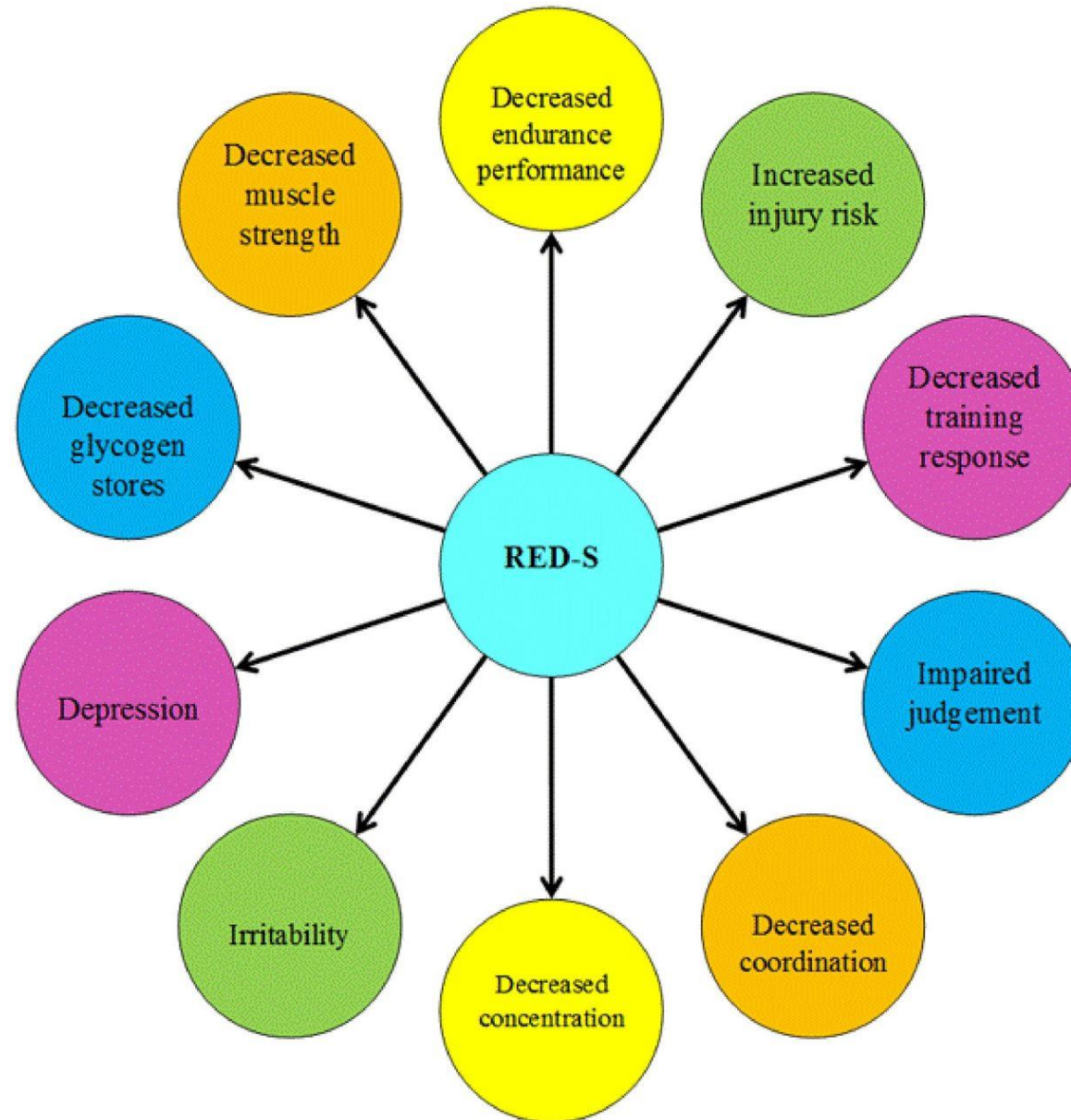
Even a small energy deficit in athletes has negative consequences on body systems

- Relative Energy Deficiency in Sport (R-EDS)
- Correcting deficit includes resting, increasing nutrition
- Increased nutrition → increased fuel → body will burn fuel at a faster rate
 - Will need ongoing increased energy for sustained recovery
- Might need to manage fear that food will negatively impact weight and performance

Physiologic Function: Relative Energy Deficiency in Sport (RED-S)



Performance Implications: RED-S



Is there a role for psychiatric medications?

- Restrictive eating disorders
 - treat co-morbid psychopathology
 - Atypical antipsychotics may help with treatment refractory anorexia nervosa
 - SSRI:
 - Do not impact weight gain
 - Manage comorbid depression/anxiety
 - May decrease relapse rate in weight-restored patients
 - Fluoxetine may help decrease bingeing/purging
- Bulimia
 - Avoid Bupropion with vomiting
- Binge eating disorders
 - SSRI
 - Topiramate
 - Lisdexamphetamine (Vyvanse)

Without a therapist, your patient is not getting treated for their ED

- Anorexia Nervosa
 - Family Based Treatment, Cognitive Behavioral Therapy (CBT)
- Bulimia Nervosa
 - CBT, Dialectical behavioral therapy (DBT)
- Binge Eating Disorder
 - CBT/self-help CBT, DBT, interpersonal, family, others

Signs of recovery in the medical clinic setting

- Normal physical function
- No signs of under-nutrition on exam, labs
- Minimal/no ED-driven decisions
 - Including transition to revealed weights
- Relaxed/flexible approach to nutrition
 - Social eating
- “Recovery” depends on interdisciplinary assessment and stability over time

Delivering care over time is challenging

- Families with ED are exhausted, often feel guilty, and are worried that their loved one will never get better
 - Recovery is achievable
 - Relapse is almost inevitable
 - Consider harm-reduction approach long-term
- Providers can become discouraged, feel helpless
 - Avoid telehealth—“flying blind”
- Use your team
 - Close communication takes time
- Treatment is long-term
 - Medical supervision for at least 1 year after stabilized
 - Therapy for years

Questions?

Comments?

Other cases?



ED Treatment Resources

- **Recommended books for medical providers:** Mehler and Andersen, “Eating Disorders: a Guide to Medical Care and Complications” (2010); Jennifer Gaudiani, “Sick Enough” (2019)
- **Recommended books for providers/care-givers:** Life Without Ed; Brave Girl Eating; Help Your Teenager Beat and Eating Disorder; Sick Enough; How to Nourish Your Child Through an Eating Disorder; Anorexia and other eating disorders: How to help your child eat well and be well
- National Eating Disorder Association (NEDA): <https://www.nationaleatingdisorders.org/>
- Academy for Eating Disorders: <https://www.aedweb.org/>
- Families Empowered and Supporting Treatment of Eating Disorders: <https://www.feast-ed.org>
- **Meal coaching video posted on youtube:** “Eating Disorders Meal Support: Helpful Approaches for Families”
- International Association of Eating Disorder Providers, RI Chapter

Conferences and Trainings

- National Eating Disorder Association (NEDA) annual conference, location varies
- Multi-Service Eating Disorders Association (MEDA) annual conference, Boston, MA
- Academy for Eating Disorders (AED) annual conference, location varies
- Renfrew annual conference, Philadelphia, PA
- Free professional webinars: ED residential programs and the above organizations



adonaldson@lifespan.org

Multiple levels of care for ED

Key:

Behavioral

Integrated

Medical

Nutrition

24-Hour

ED Residential

Integrated Medical-Psychiatric

Inpatient Medical Hospitalization

Day

ED Partial Hospital Program (PHP)
Intensive Outpatient Program (IOP)

Outpatient

Individual/Family Therapy
Psychiatry

Dietitian

Primary or Subspecialty
Medical Clinic



Thank you!

Next Meeting:

Thursday November 16th, 2023 - 7:30 – 8:30 AM
FBT Basics

Evaluation/Credit Request Form: <https://www.surveymonkey.com/r/RSKN6W9>