

Management of Athletes at Risk for **Eating Disorders**

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Disclosures

My spouse/partner and I have the following relevant financial relationship with a commercial interest to disclose:

Cambridge University Press
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Learning objectives

1. Discuss import factors in the mental health of athletes
2. Discuss athlete-specific risk factors for eating disorders
3. Discuss eating-disorder presentations in athletes
4. Discuss treatment of eating disorders in Sports Medicine
5. Take home points and resources

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Key developmental transitions increase risk for mental health concerns



- Sports become more competitive
 - Overtraining
 - Injury risk increase
- Academics become more challenging
- Social networks change: move away from family/friends/team
 - Retiring from sport
 - Athletic identity changes

Eating disorder estimates are high

18%-45% of female athletes



Up to 8%- 19% of male athletes



(Bratland-Sanda & Sundgot- Borgen, 2013; Chapa et al., 2022; Fewell, Levinson, & Stark, 2017
Greenleaf, Petrie, Carter, & Reel, 2009; Joy et al., 2016; Martinsen & Sundgot-Borgen, 2013; Power, Kovacs, Butcher-Poffley, Wu, & Sarwer, 2020; Sundgot-Borgen, 1993
Sundgot-Borgen & Torstveit, 2010; Thompson & Sherman, 2010
Williams et al., 2003)

ED prevalence increases with competition level

- Up to 32% of college athletes exhibit eating disorder symptoms
- College athletes are 3x more likely to meet diagnostic criteria than non-athlete college peers

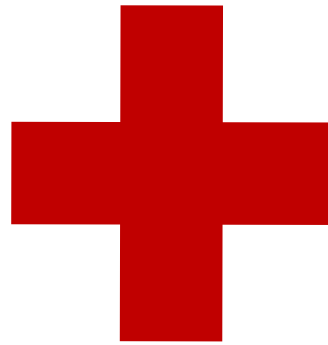


BUT...



How can prevalence be SO high?

Risk and
maintenance
factors
common
across ED
presentations



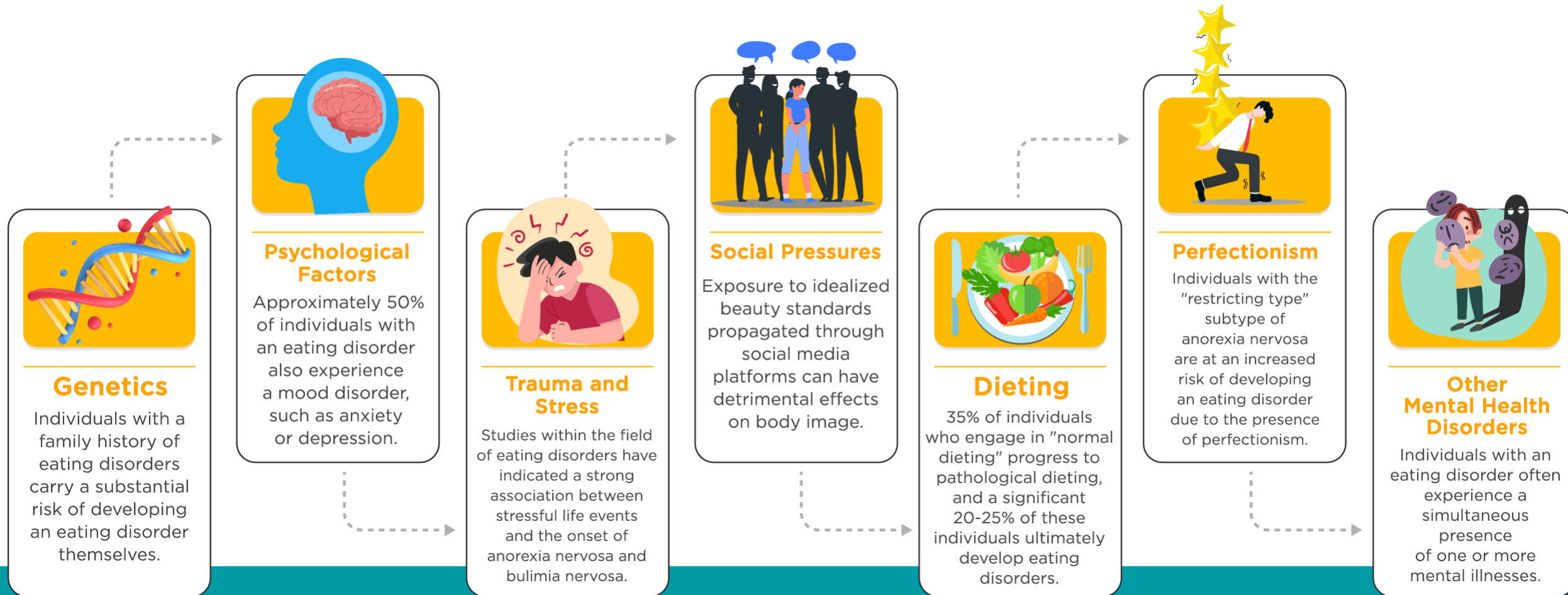
Risk and
maintenance
factors for
athlete-
specific ED
presentations

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Quick reminder

Risk Factors Associated with Eating Disorders



The sport environment



Arthur-Cameselle & Quatromoni, 2011 & 2014; Arthur-Cameselle, Sossin & Quatromoni, 2017; Stranberg et al., 2020

Two key problematic beliefs

1. Thinness enhances sport performance



2. Good athletic performance implies good health



(Arthur-Cameselle & Quatromoni, 2011 & 2014; Arthur-Cameselle, Sossin & Quatromoni, 2017; Stranberg et al., 2020; Trattner & Sherman et al., 2005)

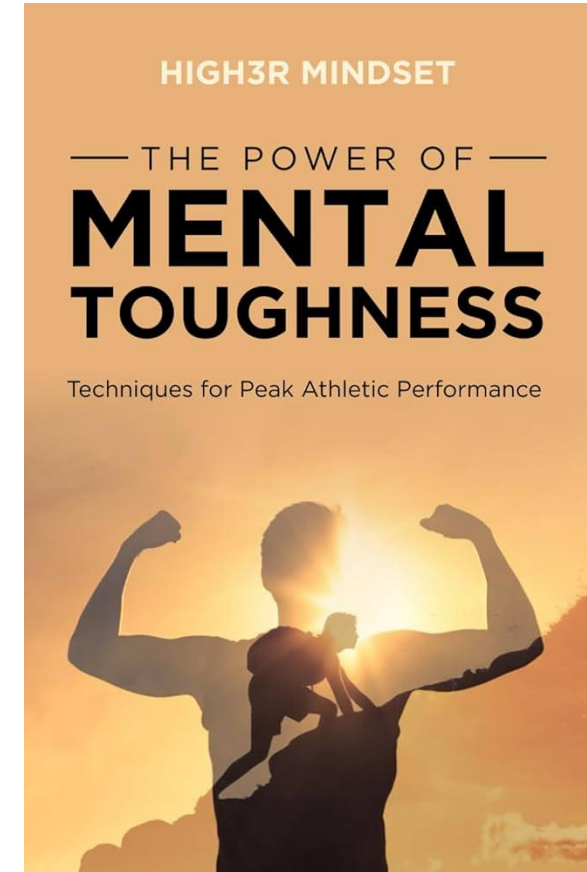
Prevalence of problematic sports environments

- 73% female athletes report pressure to have specific physical appearance
- 1/3 elite female athletes report never having female-specific health information



The athletic mindset and EDs

- Mindset characterized by: high motivation, confidence, focus, perfectionism, self-discipline, determination
- Can lead to beliefs that:
 - Disordered eating benefits sports performance
 - Overvalue on athletic identity



Arthur-Cameselle & Quatromoni, 2011; Bennett, 2021; de Bruin, 2017; Currie & Morse, 2005; Jones et al., 2005 Fallon, 2020)

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Dietary sufficiency unclear due to high energy output

- Athletes need more energy
 - Diets may look sufficient but do not support activity level
- Can be inadvertent or intentional
 - Cause result in low weight, weight loss, or binges eating
- 20-60% of college athletes experience LEA



RED-S

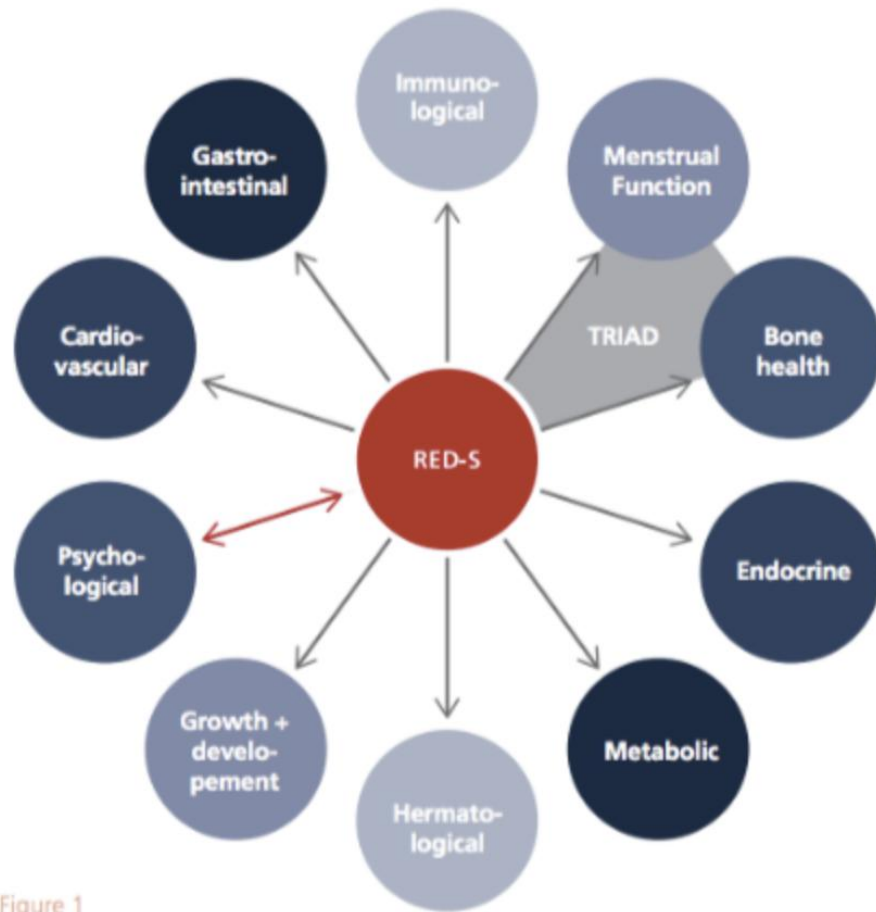


Figure 1



Figure 2

Sports Medicine is not familiar with all ED presentations

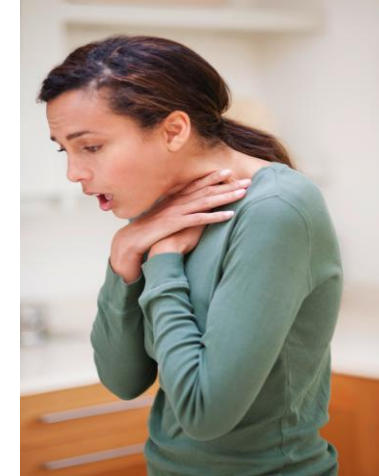
- Avoidant/Restrictive Food Intake Disorder (ARFID)
 - 22.5% ARFID and "probable ARFID"
 - 34.8% with bone stress injuries
- Atypical presentations
 - "Expect" weight loss when starting new sport or going up in training



Insufficient hunger cues
before practices/games



Dislike of common
high-iron foods



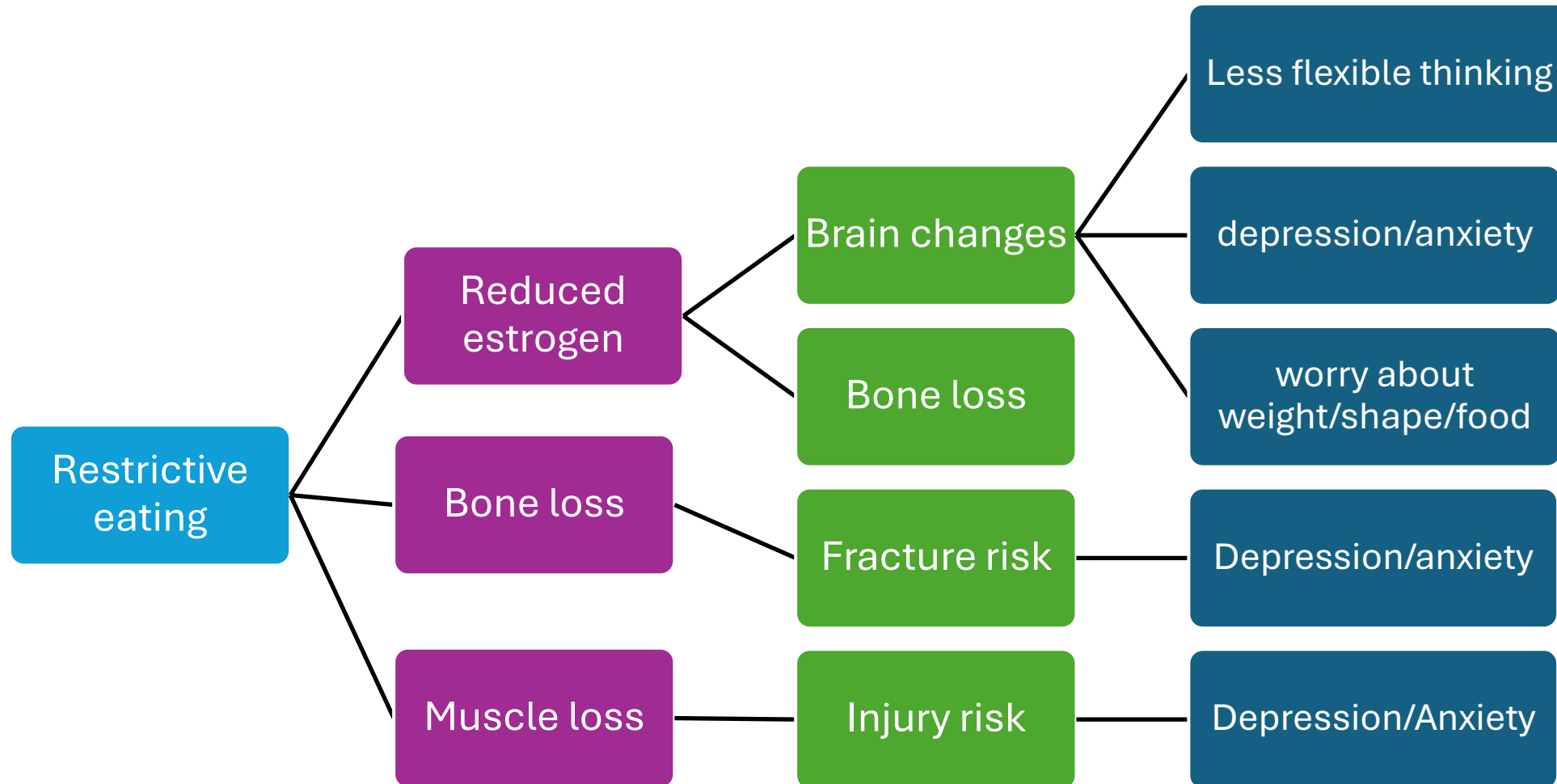
Fear of eating/certain foods before workouts/practices

Hard to assess exercise behaviors

- Maladaptive exercise:
 - Excessive in duration, intensity, and/or frequency
 - Compulsive
 - Compensatory
 - When in LEA/RED-S lower exercise levels can still be maladaptive
- Higher in athletes with EDs than non-athletes with EDs.
 - Misconception about increasing sports performance



Cost of restrictive eating



Learning objectives

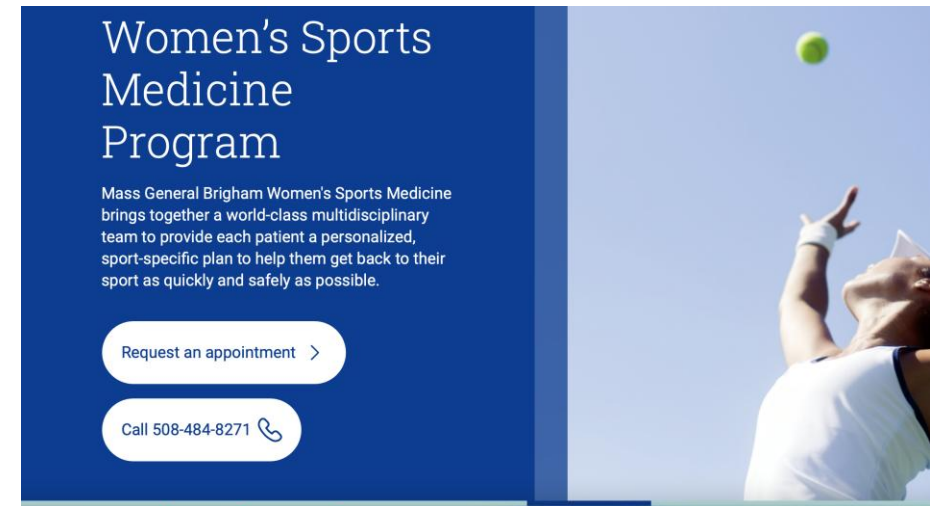
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Athletes may benefit less from even empirically supported treatments

- No guidance on targeting maladaptive exercise
- The sport environment and messaging not addressed
- Athlete mindset not addressed
- No specific guidance on eating sufficiently for sport
 - May need RED-S multi-disciplinary treatment

WSM brief treatment approach

- Education about overtraining, LEA, injury, recovery, sleep, developmental transitions, normal muscle/bone health
- Athletic identity vs. ED Identity
- Assess and address nutrition and ideas about nutrition
- Dialectical thinking
- Acceptance:
 - Emphasize broader identity development



Ahmed et al., 2023; Podlog et al., 2020; Linehan 2015; Thein-Nissenbaum & Hammer 2017; Williams & Krane 2015

“Patients involved in high-level competitive sports are difficult to help because ongoing intense exercise tends to contribute to the maintenance of the eating disorder. It is sometimes necessary to advise them that they will have to discontinue the sport in question if they are to overcome the eating problem”.

How can athletes with an ED stay in Sport?

Your Athlete Mindset

What are some problematic thoughts, beliefs, and ideas that your athlete mindset produces that motivate eating disorder behaviors?

Examples:

- I must be leaner to perform better.
- I'll only get better if I don't take a rest day.
- Clean eating is the only way I'll keep off fat and perform well.
- Exercise through the injury, it will make me better.
- If my body looks more athletic, I'll perform better.

My examples:

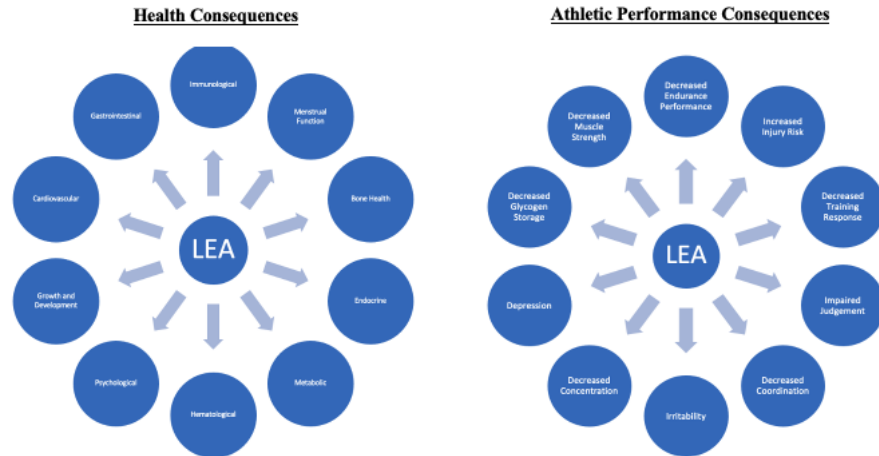
Distinguishing Between Maladaptive and Adaptive Exercise Characteristics

Questions to Ask Yourself Before, During, or After Exercise	Responses that Suggest Your Exercise has Maladaptive Characteristics	Responses that Suggest Your Exercise has Adaptive Characteristics
What is/was the goal of this exercise episode?	- o To alter/maintain appearance. - o To alleviate psychological discomfort with my body/shape/size.	- o To excel athletically. - o To remain healthy/healthy weight.
What is/was your mindset when exercising?	o I am rigid and compulsive when exercising. For example, I feel like I must exercise regardless of injury/illness, or I must reach a minimum amount of a specific cardio daily to maintain my shape and weight.	o I am flexible, adaptable, and rational when exercising. For example, I feel like I am comfortable with changing the time or amount of exercise, stopping when injured, and not exercising when sick.
What is/was the intensity and volume of your exercise?	- o The intensity and volume must be high and constant to burn calories/fat. - o I view rest as unnecessary. - o It is required the intensity is high enough that I feel like I suffer while exercising.	- o The intensity and volume vary. - o I view rest as essential. - o Suffering is as needed or as required by coach when exercising/training.
How do you respond to the numbers/data (e.g., heart rate, duration, calories burned) associated with your exercise?	- o I become obsessed and/or preoccupied with the data/numbers from exercising. - o I use the numbers/data from my exercise to dictate how much or what I eat in a day.	- o I view data/numbers from exercising as feedback and guidance. - o I do not use the numbers/data from my exercise to dictate how much or what I eat in a day.

What might it look like for you to begin to reduce exercise episodes with maladaptive characteristics or transform exercise episodes with maladaptive characteristics into adaptive characteristics?

“Food as fuel”.... and more

The Negative Effects of LEA



What ways do you experience LEA? Are you intentionally or unintentionally experiencing LEA?

How do you believe LEA negatively impacts your physical health or athletic performance?

Eating Enough at Each Meal for Hard Training Day and Race Days

Fats: 2 to 3 Tablespoons in addition to what is plated below

Avocado
Salad Dressing
Oil
Nuts
Nut butter
Seeds
Cheese
Butter

Fruits: 2 Servings

Fresh Fruit
Dried Fruit
Stewed Fruit
Diced Fruit
Canned Fruit
Frozen Fruit

HOW MUCH IS A SERVE OF FRUIT?
A STANDARD SERVE IS ABOUT 1500 OR:

1 medium Apple, banana, orange or pear
2 small Apricots, kiwi fruit, or plums
1 cup Raspberries, strawberries, or other soft fruits

Grain/Starch

Pasta
Rice
Potatoes
Cereals
Granola
Breads
Legumes
Quinoa

Pastries
Barley
Oats
Bagels
Farro
Buckwheat
Popcorn

Protein

Chicken
Yogurt
Edamame
Nuts
Tempeh
Legumes
Cheese
Eggs
Tofu

Vegetables

Raw Veggies
Cooked Veggies
Veggie Soups

When in doubt, fill up your plate completely with a variety of different foods!

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Take home points

1. Athletes face unique mental health challenges which may increase their risk for eating disorders
 - The sport environment and athletic mindset
 - Athletes may underreport symptoms/be less likely to get help
2. Assessing dietary sufficiency and maladaptive exercise in athletes is challenging but necessary
 - Athletes are at risk for LEA and RED-S
 - Not all with LEA or RED-S have EDs
 - RED-S can entrench them farther in insufficient intake
3. Empirically supported strategies can be adapted for athlete populations

THANK YOU

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