

Athletes and Eating Disorders

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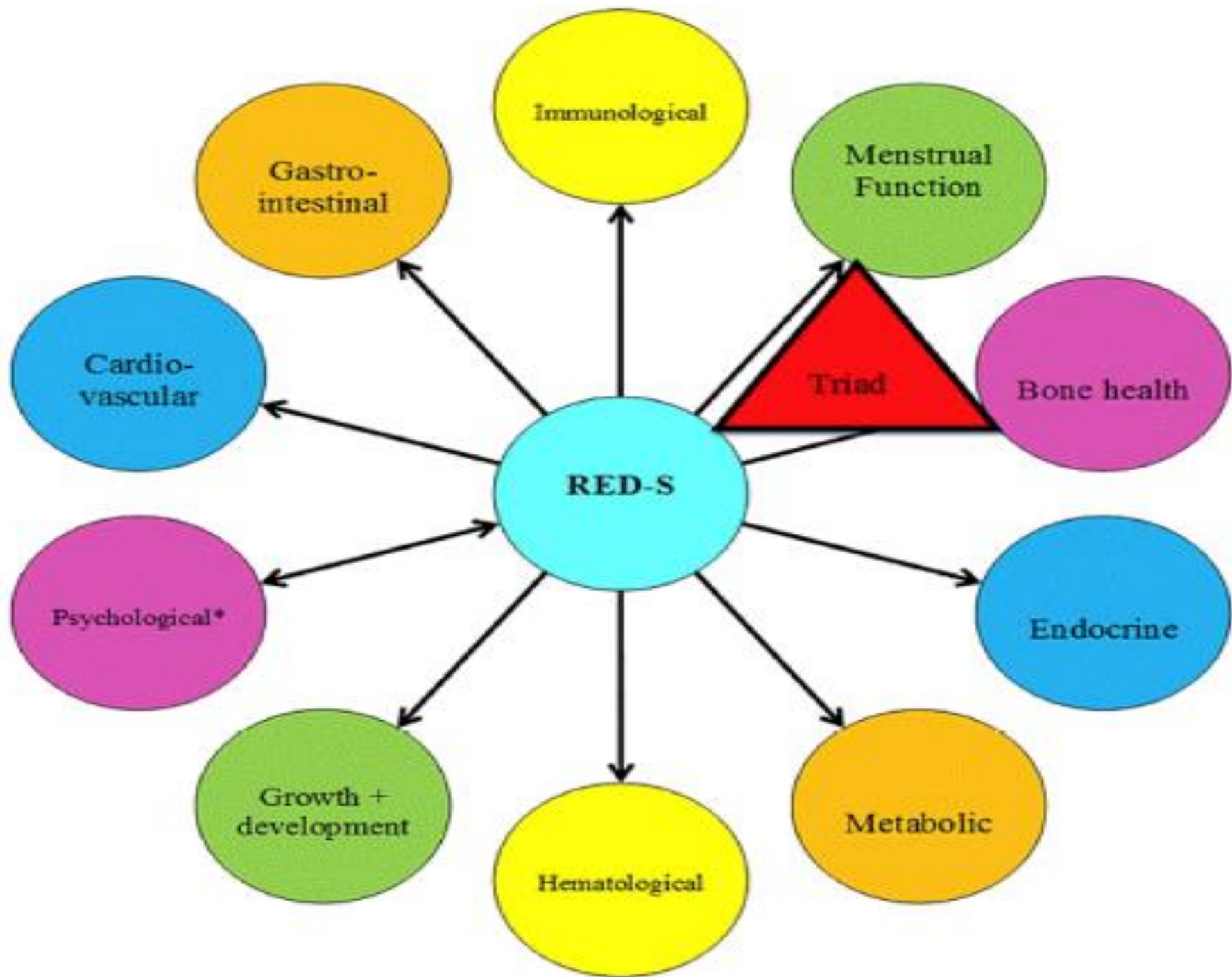
Disordered Eating – Orthorexia

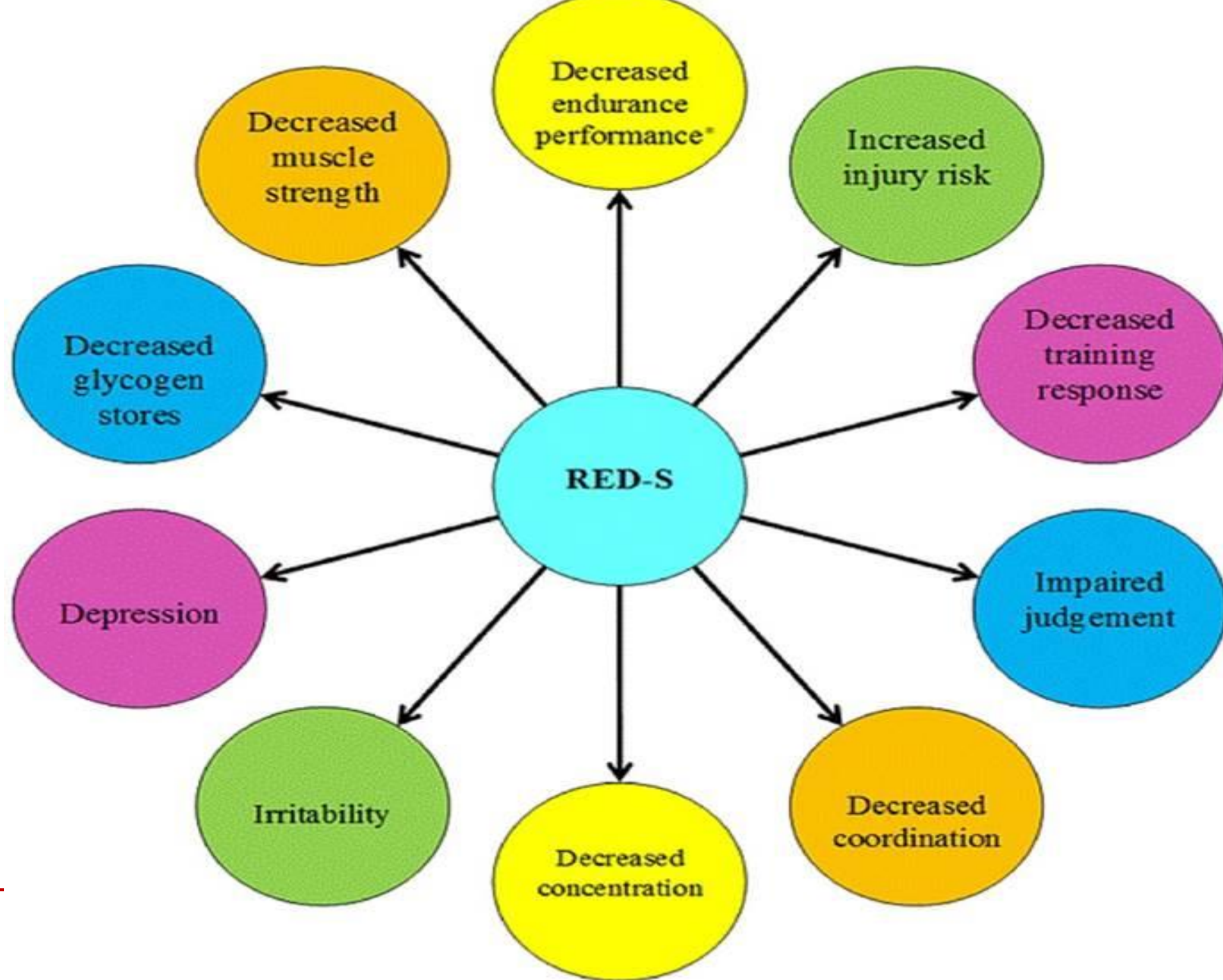
- Unhealthy obsession with healthy eating
 - Fixation on food quality and purity
 - Food choices become restrictive in variety and caloric adequacy
 - Deviation from the diet results in guilt, self-loathing or punishment
 - Food choices limit social interaction and increase isolation
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Medical Complications: RED-S

Low available energy is related to consistent negative energy balance and drives medical complications including:

- Low bone density, increasing risk of fracture and early osteopenia/osteoporosis
 - Suppressed endocrine functioning
 - Iron deficiency and decreased oxygen carrying capacity
 - Gastrointestinal distress, GERD, nausea, constipation
 - Bradycardia , heart rate less than 60, postural tachycardia, low blood pressure
 - Drop in metabolic rate, reduced T₃
 - Hypoglycemia
 - Elevation in cholesterol
 - Impaired sleep, fatigue, depression
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Relative Energy Deficiency in Sport (RED-S)

- Athletes can sometimes perform well despite having a serious eating disorder, but eventually the disorder begins to affect the athlete both physically and psychologically.
- Following a period of intense dieting, VO_2 max and running speed usually decrease.
- Inadequate carbohydrate intake results in early glycogen depletion and fatigue.
- Inadequate carbohydrate intake results in increased use of protein as fuel.
- Inadequate protein can lead to muscle weakness, wasting, and injury (increased risk of musculoskeletal injuries due to inability to build/repair muscle tissue damage).
- Dehydration leads to fatigue, poorer performance, and earlier glycogen depletion.
- Symptomatic athletes are apt to be malnourished, dehydrated, depressed, anxious, and obsessed (with eating, food, and weight), which serve to decrease concentration and the athlete's capacity to play/compete with emotion.

*Adapted from Beals (2004), *Disordered Eating Among Athletes*.

Eating Disorders: What they are NOT

- They are NOT choices.
 - They are NOT simply disorders of eating.
 - They are NOT caused by coaches or sports.
 - They are NOT simply an athlete's attempt to lose weight in order to perform better.
 - Individuals with EDs are not weak; on the contrary, they are often mentally tougher than most people.
 - Having an eating disorder does not mean the athlete must give up his/her sport.
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Eating Disorders: What they ARE

- Anorexia Nervosa, Bulimia Nervosa, Binge Eating Disorder, Other Specified Feeding or Eating Disorder, Pica, Rumination Disorder, Avoidant/Restrictive Food Intake Disorder, and Unspecified Feeding or Eating Disorder
 - They are emotional disorders that manifest themselves in a variety of eating and weight-related symptoms.
 - They impact both males and females and are caused by a combination of genetic, socio-cultural, familial, and personality factors.
 - They are serious disorders that are driven by strong internal and external forces, which are often out of the person's awareness and control.
 - Unhealthy/unbalanced exercise is usually a part of an eating disorder.
 - They are difficult to overcome, even with timely and effective treatment. Not everyone will get well. Some will suffer serious medical problems; some will die.
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Warning Signs

- Excessive exercise
 - Poor body image, preoccupation/focus on weight and shape
 - Body checking, inspection, critical self-evaluation
 - Changes in body shape/weight/mood
 - Inability to take rest days without feeling guilty
 - Injuries
 - Isolation from others
 - Performance decrements in school/work
 - Rigid food rules, eating beliefs, rituals around eating
 - Acute signs: Fainting, dizziness and dehydration
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Medical Complications

- Medical complications can occur in every organ system, ranging from mild dysfunction to **death**, depending on the severity and chronicity of the disorder.
 - Death is usually related to organ failure, typically failure involves the heart, liver, and/or kidneys. **More individuals die from anorexia than any other psychiatric disorder.** Suicide is the second leading cause of death with anorexia. Individuals also die from bulimia, usually from an electrolyte imbalance resulting from frequent purging (i.e., self-induced vomiting).
- Fluid, electrolyte and energy imbalances increase the risk of medical compromise (i.e., fainting, seizures, falls, tendon/ligament injuries) while competing and/or training
- Dehydration, dental problems, sleep disturbance, skeletal system complications, and reproductive system complications are common.



Eating Disorder Risk Factors

- Genetics
- Temperament
- Environment

Disordered Eating/Eating Disorders and Sport

- Sports do not cause DE/ED, but aspects of the sport environment can increase the risk.
- DE/ED will in time have a negative effect on the athlete's health and performance.
- Sport participation can complicate identification of DE/ED.



Eating Disorders/Disordered Eating in Athletes: Prevalence Rates

Female Athletes

- 32.8% of elite female athletes had eating disorders (46.7% of lean sport participants and 19.8 % of non-lean participants with eating disorders; Torstveit, Rosenvinge, & Sundgot-Borgen, 2008)
- 42% aesthetic sport (gymnastics, figure skating), 24% endurance sport (running, cycling), 17% technical sport, and 16% ballgame sport female athletes were found to have eating disorders (Sundgot-Borgen, 2004)
- Prevalence rates for U.S. college female athletes have been shown to range from 2-7% (e.g., Johnson et al., 1999; Reel et al., 2007)

Eating Disorders/Disordered Eating in Athletes: Prevalence Rates

Athletes have been shown to have more eating problems than non-athletes.

- 18% of athletes were diagnosed with an ED compared to 5% of non-athletes (Sungot-Borgen, 1993).

The prevalence of ED/DE has been found to increase with the competition level.

Male athletes

- Sundgot-Borgen & Torstveit (2004) found 8% of elite male athletes had clinical or subclinical eating disorders.
 - Prevalence rates of males with eating disorders - antigravitation sports (22%), endurance sports (9%), and ball game sports (5%)
- Rosendahl, Bormann, & Aschenbrenner (2009) found the prevalence of eating disorders among male athletes was 42% in antigravitation sports, 17% in weight class sports, and 10% in endurance sports.



Weight Pressures from Teammates



- Teammates have been shown to be a source of weight pressure for athletes (Petrie, Anderson, Petrie, & Neumann, 2011, 2012; Reel, SooHoo, Petrie, Greenleaf, & Carter, 2010).
- Teammates noticing weight-gain represented the strongest weight pressure for female athletes (Reel et al., 2010).
- Athletes' restrictive eating is associated with her or his perception that team members were excessively dieting to control their weight (Engle et al., 2003).
- Male athletes are also affected by weight pressures from teammates (Filaire et al., 2007; Galli & Reel, 2009).

Relationship Between Body Weight, Body Fat and Sport Performance

- There is more emphasis on weight in weight-class (weight categories) and appearance/aesthetic sports.
- Regardless of sport, most coaches (and athletes) believe that the “leaner” athlete will perform better (despite the fact that research in the area is equivocal).
- May create unhealthy body consciousness, discomfort, and/or dissatisfaction
 - Facilitates unhealthy body comparisons for the purpose of appearance and/or sport performance



Athletic Performance

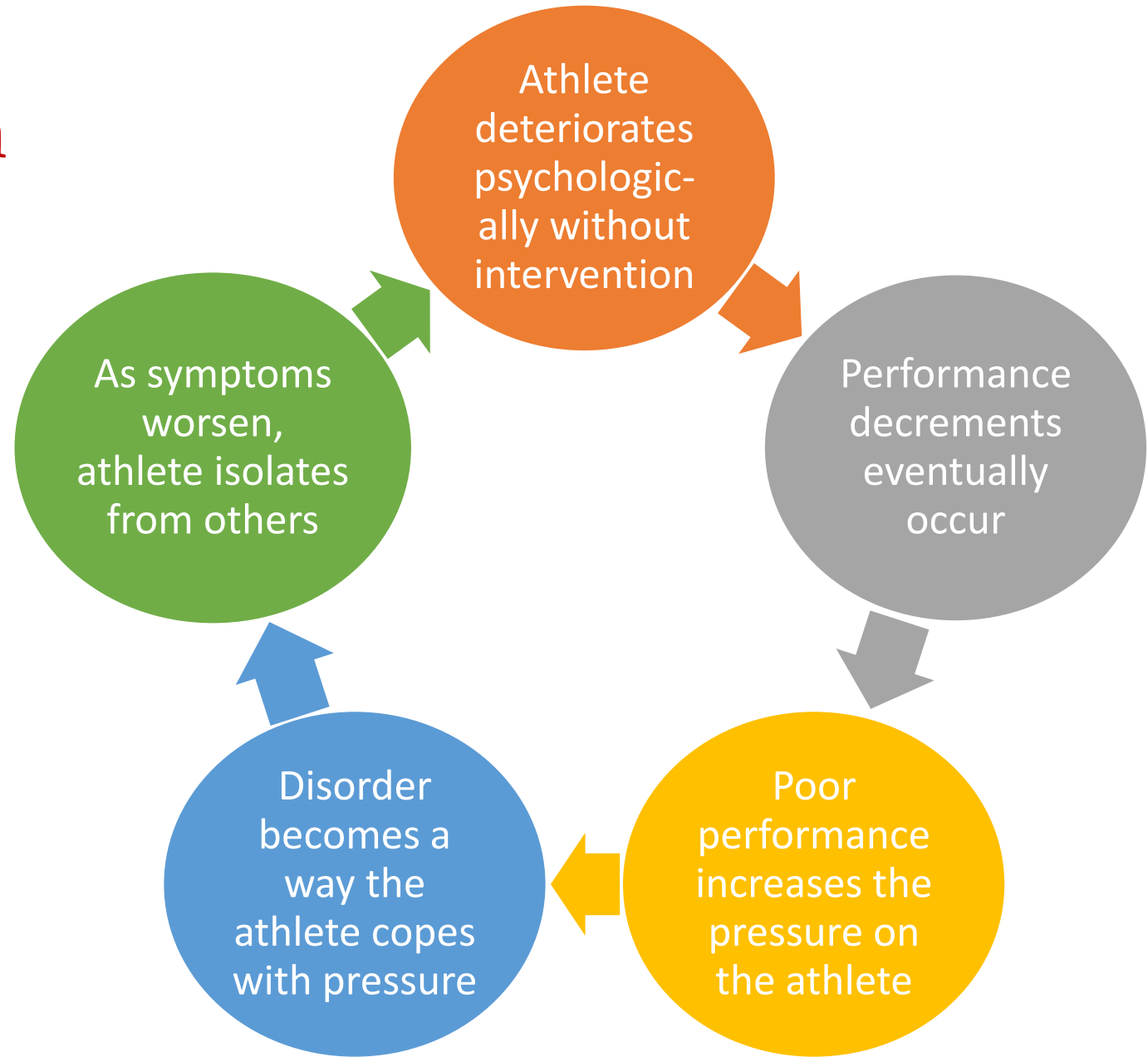
- Athletic performance is determined by several physical and psychological factors. Weight is relevant to performance, but it is also related to **at least 40 other factors**.
- Based on the literature, as well as anecdotal reports from coaches, professional scouts, and athletes, athletic performance is a complex process consisting of:

*Genetics, training, practice, coaching, physical health, balance, body composition, coordination, courage, endurance, nutrition, quickness, reaction time, rest/sleep, speed, strength, VO₂max, **weight**, mental health, mental preparation, mental toughness, anticipation, coachability, competitiveness, commitment, concentration, confidence, desire, “heart,” intelligence, motivation, perfectionism, “playing with pain,” poise, pursuit of excellence, mood, resilience, relationship between athlete and coach, relationship between/among teammates, respect, sacrifice, team work, and hard work.*

- With so many factors to work on to enhance performance, why choose to focus on one (e.g., weight) that could increase the risk of developing or worsening an eating disorder?

Thompson, 2012

Why Athletes with Eating Disorders Need Treatment



PSYCHOLOGIST:
COPING & COMMUNICATION SKILLS &
TRAUMA RECOVERY SUPPORT

FAMILY THERAPIST:
EVALUATION, SUPPORT &
COMMUNICATION SKILLS

FAMILY/ PARENTS:
COMMUNICATION,
PSYCHOSOCIAL SUPPORT
& FINANCIAL SUPPORT

REGISTERED DIETITIAN:
MEAL PLANNING,
NUTRITION EDUCATION
& WEIGHT MONITORING

ATHLETE

PSYCHIATRIST:
ASSESSMENT, MONITOR SAFETY &
PROVIDE TREATMENT

**PHYSICIAN, ATHLETIC TRAINER
& PHYSICAL THERAPIST**
HEALTH MONITORING & CARE

COACH & COACHING STAFF:
SAFE & EFFECTIVE TRAINING &
COMPETITION

ATHLETIC ADMINISTRATION:
ELIGIBILITY, COMPLIANCE,
FINANCIAL SUPPORT

How to Express Concern

<i>The Setting</i>	Individual meeting, confidential and comfortable location, atmosphere of trust and concern
<i>What to Say</i>	Communicate specific observations of concerning behaviors or statements, allow individual to respond while you listen, communicate that you are willing to help connect individual to resources are available that can help
<i>How to Say It</i>	Sensitive and empathic but direct and specific, non-judgmental
<i>What to Avoid</i>	Simple solutions (e.g., “Just eat more food”), threats

Communication About Weight & Food

- Include knowledgeable and qualified professionals for conversations about weight/body composition
- Recognize your limitations
- Emphasize overall health and well-being
 - What messages are you sending about food/weight?

Barriers & Facilitators to Identification & Referral

Barriers

- Relying largely on physical signs to detect an eating disorder
- Not knowing where to go for support
- Fears of making the behaviors worse by addressing them
- Concerns over confidentiality in referring
- Feelings of anxiety and worry
- Negative views of prognosis

Facilitators

- Trusting relationship with open communication
- Support from others in the identification process (athletes' peers, parents, mental health professional, nutrition and sports science experts)

(e.g., McArdle, Meade, & Moore, 2016; Nowicka, Eli, Ng, Apitzsch, & Sundgot-Borgen, 2013; Plateau, McDermott, Arcelus, & Meyer, 2014)

Referral Considerations & Treatment Facilitators

Refer to a Licensed Mental Health Professional

- Clinical or counseling psychologist, professional/mental health counselor, social worker

Treatment Can Be Facilitated When the Treatment Team...

- Has experience and expertise in treating athletes and eating disorders
- Understands and appreciates the importance of sport in the life of a serious athlete
- Uses the athlete's "sport family" during treatment

(Thompson & Sherman, 2010)

When to Refer for *Intensive* Treatment?

- Weight loss to below 85% of expected/goal weight
 - Caloric intake is low and patient continues to resist increasing caloric intake
 - Symptoms are worsening over time
 - Continues to engage in exercise despite injury and/or that exceeds treatment team's recommendations
 - Psychological problems (e.g., depression, anxiety, obsessional thinking) that interfere with general functioning (i.e., school, work, social)
 - Medical complications (bradycardia, EKG changes, electrolyte abnormalities, syncope)
 - Poor progress in outpatient setting
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Relationship to Sport?



**Relationship to
Training?**

Compulsive Exercise

~39%–48% of individuals with EDs engage in compulsive exercise
(*Freimuth et al., 2011*)

Compulsive exercise is viewed as secondary to ED

- Primary compulsive exercise does not exist (*Bamber, 2000*)

Obtaining the “perfect body” is not enough (*Lichtenstein et al., 2017*)

- Exercise can function as an escape from distressing emotions if individual has negative affect about his/her body



Wholesome Exercise

Exercise Pathology

Goal: To challenge oneself and engage in a variety of activities that are enjoyable and energizing

Goal: To alter one's appearance and/or regulate discomfort

Performance: Incremental gains

Performance: Plateaus/decreases

Mindset: Work hard/rest hard

Mindset: Move to move/rest is unnecessary

Missed workout = Concern

Missed workout = Distress

Flexible & adaptable

Rigid

Curious/open to new information

Close-minded

Resourceful, driven, & rational

Compulsive & anxious

Modify due to illness & injury

Train through illness & injury

Bennett, 2017



Eating Disorder
= Injury

Difficulties Similar to Physically Injured Athletes

- Grieving the temporary (or permanent) loss of sport
- Limited interaction with teammates
- Patience and time needed for healing
 - ED = tendinitis of physical injuries
- Uncertainty about regaining prior level of performance



Return to Training?

Partial clearance to return to sport training

- Depends on stabilization of medical complications
- Mindset/Psychological readiness
- Willingness to fuel for output
- Supervision of response returning to training



Relationship to Self?

Perfectionism



Difficulty:

- Being curious
- Resting in strengths or attributes
- Acknowledging efforts
- Celebrating accomplishments

Where is the end point?

Fear driven

Absence of self-compassion



Over Identification w/ Sport/ED

Unwholesome clinging to
sport/ED

Value, worth, and deservedness
derived from....?

Being vs. doing

Athlete identity vs.
additional identities

Body Image Distress



“Poor body image was mentioned by over 80% of both athletes and non-athletes, which aligns with established theories about the key role body dissatisfaction plays in ED onset, and supports the targeting of body image in athlete prevention programs” (p. 209).

“Athletes’ poor body image and sense of inadequacy were most commonly connected to teammates’ modeling of ED behaviors and sport pressure” (p. 209).

Arthur-Cameselle, Sossin, & Quatromoni (2016)



Final Thoughts

- Say something!
- Do not disregard current state of nutrition, malnourishment, and treatment compliance
- Understand significant risks when treatment is delayed
- Avoid negativity toward body and food
- Stay in your lane

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