

# Naturally Informed: Stress and Mental Wellness 2024 Virtual Conference

Dates: September 30, 2024 – October 2, 2024

Web: <https://naturallyinformed.net/2024-smw-main/>

Speaker: Douglas S. Kalman PhD, RD

# Setting the Record Straight on Dietary Supplements, Eating Disorders, and Mental Wellness.

- Speakers:

- Susan J. Hewlings PhD, RD
- Rick Collins Esq, CSCS
- Douglas Kalman PhD, RD

# About the Speaker

- Scientist, researcher, nutrition and regulatory expert.
- Co-founder, The International Society of Sports Nutrition (2003).
- *Clinical Associate Professor, Nova Southeastern University (Florida, USA).*
- Co-founder; Substantiation Sciences, LLC.
- Sports Nutritionist – Olympic (6 to date), Collegiate (~ 8 years, 17 teams per), Professional athletes – chiefly MMA, boxing, swimming and tennis.
- Co-editor – *Journal of The International Society of Sports Nutrition.*

# Dietary Supplements in the Treatment of Eating Disorders

- How can dietary supplement use – in and of itself be “causal” of an eating disorder, when concurrently these are used in the treatment for the mental health disorder?
- Eating disorders are in part characterized by weight and muscle loss, and can include a variety of nutrient insufficiencies and deficiencies.
- How are Eating Disorders defined (nutrition slant)?

Refs: <https://www.hsph.harvard.edu/striped/out-of-kids-hands/> ;  
[https://www.jandonline.org/article/S2212-2672\(20\)30904-7/fulltext#](https://www.jandonline.org/article/S2212-2672(20)30904-7/fulltext#)

# The Academy of Nutrition and Dietetics

- Hackert, et al in the 2020 Standards of Practice and Standards of Professional Performance for Registered Dietitian Nutritionists (Competent, Proficient, and Expert) in Eating Disorders as published by AND states:
- “Eating disorders (ED) are complex mental illnesses and are not a result of personal choice.”
- International Classification of Diseases (ICD-10) – Eating Disorders “A broad group of psychological disorders with abnormal eating behaviors leading to physiological effects from overeating or insufficient food intake.” “A group of disorders characterized by physiological and psychological disturbances in appetite or food intake.”

Ref: <https://www.sciencedirect.com/science/article/pii/S2212267220309047>;  
<https://www.icd10data.com/ICD10CM/Codes/F01-F99/F50-F59/F50>

# Nutrition Concerns in those with Eating Disorders

- Caloric intake (overall: CHO/PRO/FAT – EAA/EFA)
- Protein intake (overall and type)
- Vitamin and Mineral intake – (macro and micro)
- Fiber intake
- Fluid intake/fluid status
- Dietary restrictions (restrictive eating)

Ref: <https://pubmed.ncbi.nlm.nih.gov/26122390/>; <https://pubmed.ncbi.nlm.nih.gov/38772131>

# Royal College of Psychiatrists – Basic Nutrition Assessment to Include:

- Recent change in eating habit
- Rate of weight loss
- Binge eating
- Vomiting and laxative misuse
- Gastrointestinal function
- Hydration
- Restrictions on the variety of acceptable foods
- Other conditions that may require dietary management (such as diabetes)
- Presence of conditions that may affect nutritional requirements (such as an infection or growth)
- Use of alcohol

Chapter2 Nutritional Assessment. RCP. [https://www.rcpsych.ac.uk/docs/default-source/improving-care/better-mh-policy/college-reports/college-report-cr130.pdf?sfvrsn=c4aad5e3\\_2](https://www.rcpsych.ac.uk/docs/default-source/improving-care/better-mh-policy/college-reports/college-report-cr130.pdf?sfvrsn=c4aad5e3_2)

# Academy of Eating Disorders (AED)

- Guides health professionals as part of intake questionnaire to collect a 24-hour diet recall and to ask about use of dietary supplements).
- States there are behavioral, physical and neuropsychiatric signs in ED (page 4).
- The “signs” may in part be due to nutritional deficiencies (page 4).
- Dietary Supplements are recommended as part of treatment of ED



# Nutritional Situations with Eating Disorders

- Caloric prescription of the diagnosed person with ED.
- Cannot aggressively refeed a person, may be lethal, especially the more underweight a person is. Can lead to.....
- Refeeding syndrome – persons/patients may experience hypophosphatemia, hypokalemia, hypocalcemia, hypomagnesemia, and fluid retention as well as thiamine deficiency. All requiring supplementation and medical management.

# Nutrients of Concern in Eating Disorders

- Data indicates the following vitamins as frequently being underconsumed by those with ED – Vitamin A (beta-carotene), Thiamin, Folate, Vitamins B6, B12, C, D and E.
- Research details that potassium, calcium, phosphorus, iron, magnesium, zinc and iodide intake are all low and of concern
- Recent research in ED found prevalence of nutrient deficiencies. Namely, 28.3% had at least 1 deficiency, 33.2% 2 deficiencies, 18.8% 3 deficiencies and 12.6% 4 or more nutrient deficiencies.

Refs: <https://pubmed.ncbi.nlm.nih.gov/3877213/>; <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6520973/> ;  
<https://pubmed.ncbi.nlm.nih.gov/30959831/>



# Can Micronutrient Status impact Mental Well-being in Eating Disorders?

- French study evaluated micronutrient status and health in an eating disorder population (anorexia nervosa) that were an average age of 28.5.
- 153 women with diagnosed AN tested for micronutrient status:
- Selenium deficiency in 40.6%
- Other nutrients deficient: zinc, phosphorus, magnesium, vitamin B12, folate and vitamin A.
- Zinc deficiency in some ways mirrors the symptoms of AN!
- The researchers concluded that the micronutrient deficiencies contributed to the *neuropsychiatric dysfunction* observed in ED.

Ref: <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5372888/>;  
<https://www.psychiatryredefined.org/zinc-an-essential-element-in-the-fight-against-anorexia/>



# AND - Registered Dietitians - Standards of Care (Practice)

- RD's are to assess current use of dietary supplements, prescription and non-Rx medications and other products.
- RD's checks DS being used by the person with ED for drug-nutrient interactions.
- Implements use of medical foods and dietary supplements (DS) as part of the Nutrition Care Plan.
- Educates about the use of DS to minimize potential interactions with Rx and Tx.
- May include use of calorie and protein supplements, multivitamins, minerals and botanicals.

Ref: [https://www.jandonline.org/article/S2212-2672\(20\)30904-7/fulltext#](https://www.jandonline.org/article/S2212-2672(20)30904-7/fulltext#)

## Teaching Hospitals/Medical Centers – DS as part of the Treatment and Recovery Plan

- Mount Sinai Medical Center (New York, NY) – maintains recommendations for various DS and botanicals for ED recovery.
- St. Luke’s Hospital (Chesterfield, MO) – maintains a database of herbs and DS for AN (ED recovery).
- National Institutes for Clinical Excellence (NICE) Guidelines for AN Treatment (ED) – minimum of multivitamin with minerals inpatient and outpatient. EPA at 1 gm/d.

Refs: <https://www.mountsinai.org/health-library/condition/anorexia-nervosa>; <https://www.stlukes-stl.com/health-content/medicine/33/002376.htm>; <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3829207/>

# In Practice – Centers of Treatment

- The Center – A Place for Hope (WA.) – standard treatment utilizes potassium, zinc, multivitamin/mineral, B vitamins, amino acids.
- Intermountain Healthcare (UT) Care Process Model - for ED includes use of multivitamins, minerals and supplemental shakes (calorie, protein).
- Physician’s Committee for Responsible Medicine (PCRM) – Nutrition Guide for Clinicians – use of vitamin mineral supplements as base. Others added PRN.

Refs: <https://www.aplaceofhope.com/supplements-for-eating-disorder-recovery>;  
<https://intermountainhealthcare.org/ckr-ext/Dcmnt?ncid=522882792>;  
[https://nutritionguide.pcrm.org/nutritionguide/view/Nutrition\\_Guide\\_for\\_Clinicians/1342074/all/Eating\\_Disorders](https://nutritionguide.pcrm.org/nutritionguide/view/Nutrition_Guide_for_Clinicians/1342074/all/Eating_Disorders)

# Putting it all Together

- Eating disorders are mental health conditions.
- Use and abuse of substances or supplements is not about nutrition, it is related to the mental health condition.
- In large part, those with eating disorders suffer from nutritional insufficiencies and deficiencies as a result of their behavior and disorder.
- Standards of care include the use of a variety of dietary supplements as part of treatment and recovery in those with ED.
- Foods first, supplementation too!
- Common: Multivitamin with minerals, Vitamin D, Calcium, EPA/DHA, other.

# Questions and Thank you!

- Questions?
- Thank you to all at Naturally Informed for hosting this provocative session on dietary supplements and eating disorders.
- Thank you for attending!
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