2024 HOPE Consortium Conference

Nutrition and Substance Use

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Picture a person who is malnourished.

What do they look like?
What are their symptoms?
What does their lifestyle look like?
Where do they live?

Picture a person who is living with substance use disorder.

Our Chat Today:

1) Explain the bidirectional relationship between substance use and nutrition

2) Describe key nutrients that support healing, repair, and recovery

3) Define other nutrition-related considerations that may impact nutrition status

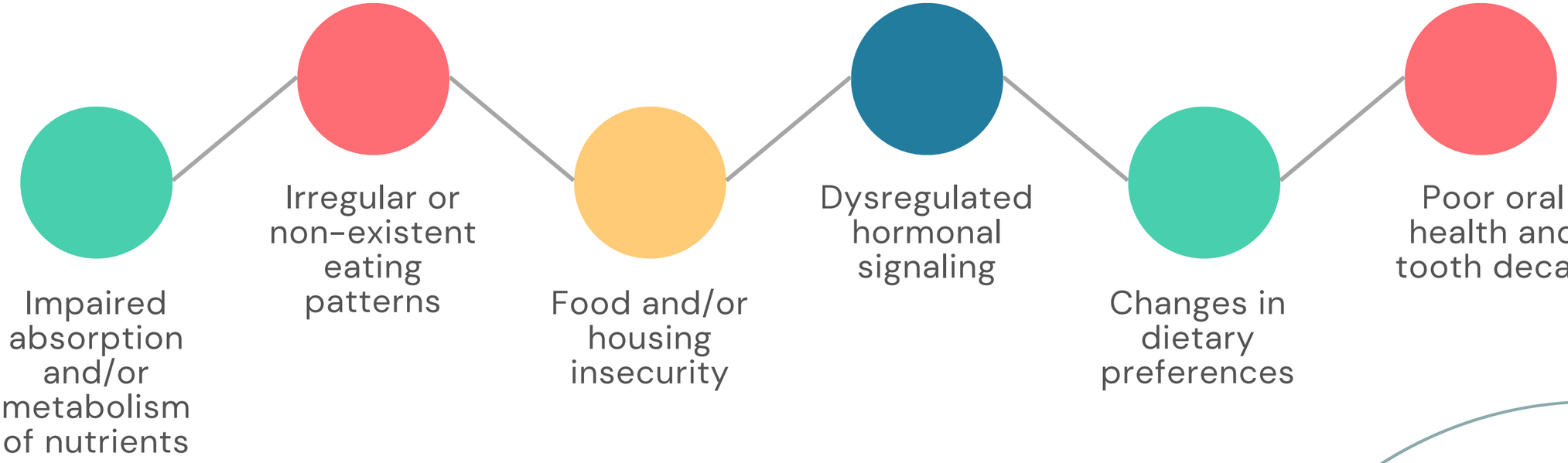
Substance use negatively impacts nutritional status.

- Various organs and their functions will be impacted differently.

- Dependent on:
  - Type(s) of substances
  - Frequency of use
  - Duration of use
  - Pre-existing or co-existing health conditions

- Malnutrition is common among people who use substances and during recovery.

Contributing Factors to Malnutrition



Substance use recovery impacts nutritional status.

- Dependent on stage of recovery
- Withdrawal symptoms may exacerbate poor nutritional status and dehydration
- GI discomfort and distress
- Medication-assisted therapy may impact appetite, weight status
- Type of recovery setting
- Nutritional support during recovery varies widely

Nutritious foods support physical and mental health during and after substance use.

- Provide adequate energy and replaces essential nutrients
- Supports physical healing processes and bolsters the immune system
- Restores and regulates hormonal signaling
- Stabilizes mood
- Reduces and regulates cravings
- Supports overall treatment outcomes

Essential Nutrients that Support Healing, Repair, and Recovery

- Protein
- Carbohydrates
- Dietary Fat
- Micronutrients
- Water

Protein

Provides **energy** and **gives structure** to the body. Building blocks of protein are **amino acids**. Two types of food sources – **complete and incomplete**. Look to add **high-quality** protein food sources to the diet.

Protein intake is low among people who use substances and deficiency is common among people who use opioids.

Low protein intake may interfere with natural hunger, fullness, and craving signals.

Substances can drastically interfere with the body's ability to metabolize and use protein.

Amino Acids and Brain Chemistry

Amino Acids

- Foundational building blocks of neurotransmitters

Neurotransmitters

- Chemicals that allow the brain to communicate with itself and other parts of the body

Increased Neurotransmitters during Substance Use

- Dopamine: tyrosine
- Serotonin: tryptophan

Benefits of Protein during Recovery

People eating an adequate amount of protein are more likely to have a balance diet with a variety of nutrients, fiber, vitamins, and minerals.

Protein-rich foods may naturally increase dopamine and serotonin levels.

May reduce irritability and low mood/energy experienced during recovery.

May be linked to fewer cravings for substances and high-sugar foods and drinks.

Adding More Protein to the Diet

- Encourage protein intake first thing in the **morning** and as a part of **all meals and snacks**.
- Focus on **high-quality protein sources**, when available.
  - Plant-based sources (e.g, beans, legumes)
  - Lean choices (e.g., chicken, turkey)
- **Regular and established eating times** that include protein are also important to help reduce cravings and restore hunger and fullness signaling.
- **Amino acid supplementation** is being explored as a therapeutic option in recovery.
- Be mindful of **liver function** in people who are living with alcoholism.

Carbohydrates

Provides **energy** and sustains **blood sugar**. Largest energy source in the diet. Found in a **variety of foods**. Includes **sugars, starches, and fiber**. Dietary guidelines suggest half of our carbs each day should be **high-quality, whole grain** options.

Simple sugars are the primary energy source for those who use substances.

High sugar intake may be linked to preference changes, food access, and convenience.

Women tend to “cut” carbs, fear carbs, frequently diet, or have weight concerns.

Carbohydrates and Brain Chemistry

Carbs

- Support natural production of serotonin

Insulin

- Released after a meal with carbs and stimulates uptake of tryptophan into the brain

Increased Serotonin

- Supports happy, stable moods, sleep, and curbs food cravings

Importance of High-Quality Carbohydrates in the Diet

- Best approach is a **balanced diet** including higher quality, complex carbohydrates
- **Provides sustained energy** over time and reduces fatigue
- **Stabilizes blood sugar and neurotransmitter** synthesis
- **Reduces cravings** for highly-sweetened and refined carbohydrate foods (simple sugar foods)

Focus on Fiber as a High-Quality Option

Fiber supports

Stable blood sugar, heart health, regularity, fullness/hunger signals

Restorative functions

Regular bowel movements, reduces symptoms common during detox

Slow and steady

Introduce slowly and with plenty of water

Dietary Fat

Provides **energy** and supports other **important functions** in the body. These include structure of cells, signaling, absorbing and transporting vitamins, temperature regulation, among other things. Two main groups of **saturated and unsaturated fats**.

Saturated fat and infrequent eating patterns are common among those who use substances.

May contribute to poor mental health status commonly associated with substance use.

Several factors may contribute to a diet high in saturated fat (e.g., poor food access).

Unsaturated Fat Supports Recovery

Mental Health

Unsaturated fats can be supportive of mental health outcomes

Balance is key

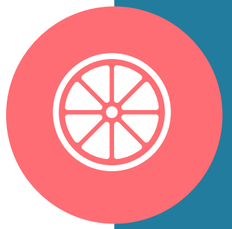
Encourage intake of both omega-6 and omega-3 fatty acids

Supplementation

Promising literature in people who use cocaine and alcohol with omega-3 intake

Micronutrients

Includes nutrients, like vitamins and minerals, that are needed in small amounts. Do not provide energy. Support specific bodily functions. Found in a variety of foods and drinks.

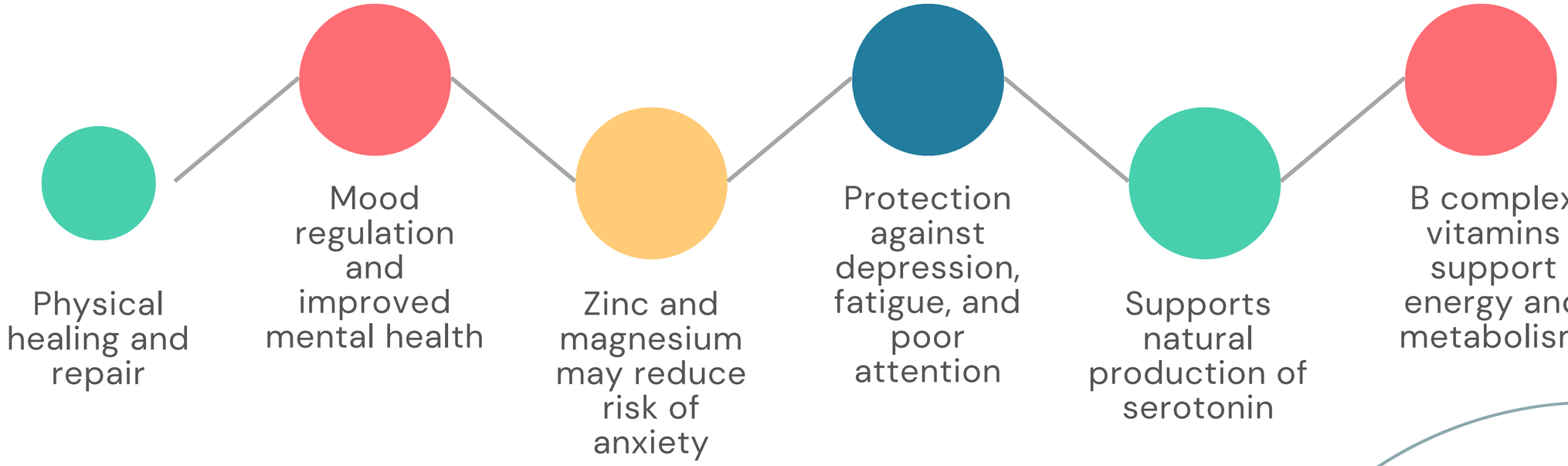


Micronutrient deficiencies are common during substance use and early recovery.

Different substances impact micronutrients differently.

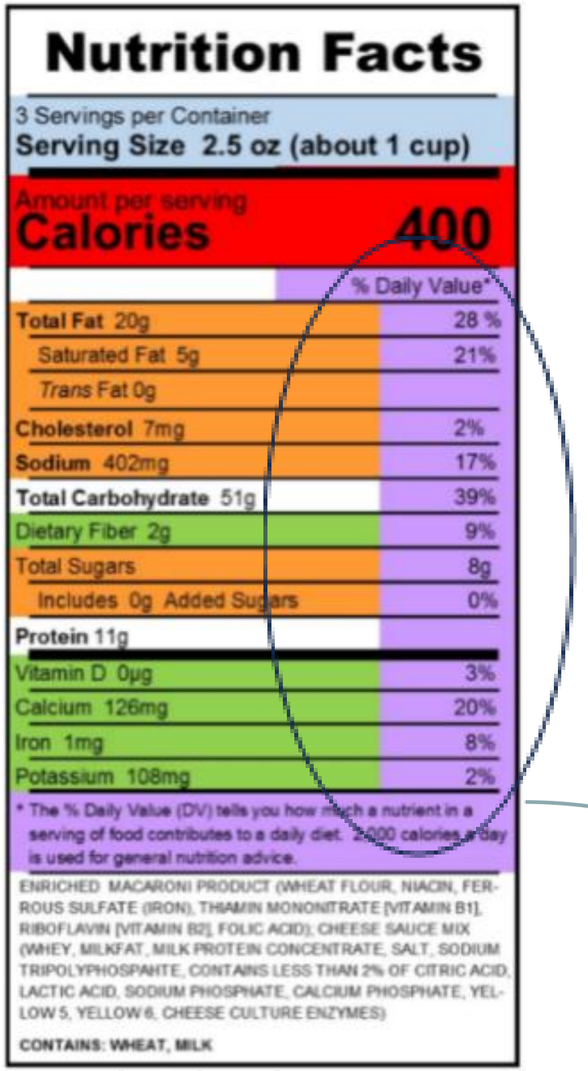
Malnutrition may be caused by a variety of reasons, including withdrawal symptoms.

Benefits of Micronutrients during Recovery



Adding More Micronutrients to the Diet

- Add fruits and vegetables to the diet in a variety of ways.
- Eat the rainbow.
- Use the nutrition facts label as a tool.
- Build cooking skills to help add nutrient rich foods to the diet.
- Prepare vegetables in a variety of ways.
- Talk to healthcare providers about the need for dietary supplements.



Nutrition Facts

3 Servings per Container
Serving Size 2.5 oz (about 1 cup)

Amount per serving
Calories 400

	% Daily Value*
Total Fat 20g	28 %
Saturated Fat 5g	21%
Trans Fat 0g	
Cholesterol 7mg	2%
Sodium 402mg	17%
Total Carbohydrate 51g	39%
Dietary Fiber 2g	9%
Total Sugars	8g
Includes 0g Added Sugars	0%
Protein 11g	
Vitamin D 0µg	3%
Calcium 126mg	20%
Iron 1mg	8%
Potassium 108mg	2%

* The % Daily Value (DV) tells you how much a nutrient in a serving of food contributes to a daily diet. 2,000 calories a day is used for general nutrition advice.

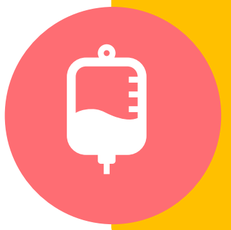
ENRICHED MACARONI PRODUCT (WHEAT FLOUR, NIACIN, FERROUS SULFATE (IRON), THIAMIN MONONITRATE [VITAMIN B1], RIBOFLAVIN [VITAMIN B2], FOLIC ACID); CHEESE SAUCE MIX (WHEY, MILKFAT, MILK PROTEIN CONCENTRATE, SALT, SODIUM TRIPOLYPHOSPAHTE, CONTAINS LESS THAN 2% OF CITRIC ACID, LACTIC ACID, SODIUM PHOSPHATE, CALCIUM PHOSPHATE, YELLOW 5, YELLOW 6, CHEESE CULTURE ENZYMES)

CONTAINS: WHEAT, MILK

Water/Hydration

Provides **energy** and supports other **important functions** in the body. These include structure of cells, signaling, absorbing and transporting vitamins, temperature regulation, among other things. Two main groups of **saturated and unsaturated fats**.

Dehydration is common in people who use substances and during recovery.



Contributing factors include lifestyle factors, early detox, and medication-assisted treatment.

Limit or choose highly-sweetened, highly-caffeinated beverages and energy drinks less often.

Strategies to Improve Hydration Status

Start slowly.

Allows the body to adjust. Look for decaffeinated options with little to no added sugar.

Add electrolytes.

Drinks are a great way to add important electrolytes back to the body. Examples include coconut water and some sport drinks.

Eat your water.

20% of our hydration comes from foods like fruits, vegetables, soups, broths, yogurt, and other dairy items.

Nutrition-related Considerations that Impact Nutrition Status

People choose substances for different reasons.

- Important consideration when working with diverse audiences in substance use recovery.
- Using substances may be linked to:
  - Perceived physical health benefits (e.g., more energy)
  - Weight status (e.g., reduces appetite)
  - Body image (e.g., obsession with weight loss or low body weight)
- Established gender differences between men and women in recovery

Influences on Nutritional Status

- Biochemical Changes
- Pre-existing Conditions
- Infectious Diseases
- Oral Health
- Food Access
- Housing/Food Security
- Food Prep/Safety Skills
- Financial Stability
- Physical Activity

Picture a person who is malnourished and living with substance use disorder.

What do they look like?
What are their symptoms?
What does their lifestyle look like?
Where do they live?
What influences are impacting their nutritional status?

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Thank you for your time, attention, and engagement.

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