Opioid Use and Nutrition
Nutritional Needs for Addiction, Treatment, and Recovery
Objectives

• Review common side effects of opioid addiction and how it impacts nutrition status
• Learn about nutrition considerations throughout the treatment spectrum
• Discuss nutrition guidelines for people struggling with addiction or that are in recovery
Opioids and the Effect on the Body
Specifically on the Gastrointestinal Tract

- Opioids suppress neural activity which can manifest in slowed digestion
  - Delayed gastric emptying
  - Slowed intestinal transit
  - Intestinal blockages
- Common side effects include
  - Constipation
  - Nausea
  - Vomiting
Opioids and the Effect on the Body
Specifically to the Endocrine System

- With increased drug usage, there is a chance that metabolic problems arise
  - Fasting insulin levels are higher
  - Insulin resistance due to beta cell dysfunction
  - Lower glucose clearance rate when given IV glucose solution
Opioids and the Effect on the Body
Short and Long-Term Impacts

**Short-Term Symptoms**
- Blood sugar disorders, insulin resistance
- Constipation, nausea, vomiting, high-fat and cheap food
- Constipation, decreased motility, abdominal pain

**Long-Term Consequences**
- Metabolic Issues
- Malnutrition
- Narcotic Bowel Syndrome
Opioids and the Effect on the Person

Socio-economically

• There are many socio-economic factors that influence a person addicted to opioids that can impact nutritional status

  ▪ Food access
  ▪ Loss of employment/Affordability of food
  ▪ Access to housing/food storage
  ▪ Inability to do meal preparation
  ▪ Loss of social support systems
  ▪ Not participating in physical activity
Nutrition Impacts during Treatment and Recovery

Proper nutrition and hydration complement treatment and recovery because nutritional deficiencies can lead to mental health symptoms that can trigger a relapse.

- Undernutrition
  - food security
  - appetite
  - absorption
  - utilization
  - excretion

- Poverty
  - living conditions
  - pathogen load
  - enteropathy
  - access to health care
  - social support

- Infections
  - Non-immunological factors increasing severity of disease:
    - respiratory muscles
    - prone to dehydration
    - cardiac function

- Mortality
Nutrition considerations through opioid use
Nutrition Challenges during Usage

• Substance use affects appetite and hormonal regulation of hunger cues
• Not eating consistently throughout the day
• Not eating nutrient dense foods
  ▪ Leading to macro- and micronutrient deficiencies
• Other issues:
  ▪ Inadequate sleep
  ▪ Decreased physical activity
  ▪ Organ damage
  ▪ Decreased immunity
Nutrition Focus During Usage

• Encourage treatment

• Provide resources for access to medical care (emergent or outpatient)

• It will be hard to impact nutritional status if someone is actively using, but the message should be focused on a self-care and healthy lifestyle
Nutrition considerations after detoxification
Nutrition Focus after Detox

- Nutrition education programs are associated with a greater sobriety success rate at 3 months
- Healing and nourishing the body
- Reduce stress and stabilize mood
- Encourage well-balanced lifestyle
- Address any dietary concerns that would be associated with co-morbid conditions
Nutrition Focus after Detox

Malnutrition

- Malnutrition is seen with imbalances, deficiencies, or excessive nutrient intake
- Can include decreased protein stores, micronutrient deficiencies, and electrolyte imbalances

Nutrition Focus after Detox
Severe Malnutrition

• For severe cases of malnutrition, medical monitoring may be necessary for Refeeding Syndrome

• Those at high-risk for refeeding syndrome include:
  ▪ Not being fed for 7-10 days with evidence of stress and depletion
  ▪ Greater than 10% weight loss over a couple of months when body is already depleted
  ▪ Prolonged fasting
  ▪ Elderly people that have been undernourished for an extended period of time
Nutrition Focus after Detox

• Providing individualized guidance can help to focus the nutrition education on specific risk factors helping to improve the likelihood of recovery

• May have newly diagnosed chronic illnesses like hypertension, metabolic syndrome, diabetes, or eating disorders

• Start with achievable goals like regularly scheduled meals and snacks and/or establishing a physical activity routine

• Early on, people may not be able to differentiate between hunger and cravings for drugs
Nutrition Focus after Detox

• Target for adequate caloric intake (may need to work with healthcare provider for this)

• Once able to meet calorie needs, focus on incorporating nutrient dense foods to improve any nutrient deficiencies
  - Fruits
  - Vegetables
  - Whole grains
  - Fish, poultry, beans

• Can help decrease symptoms that could lead to a relapse

• Continue to encourage nutrition goals as part of the comprehensive healing process
Macro- and micronutrient impact on treatment and recovery
### Macronutrient Affect on Mood

#### Carbohydrates
- Aid in the production of serotonin which helps promote happy and stable mood
- Insulin release after eating carbs facilitates energy generation
- Contain Folic Acid, B6, and B12 which improve energy and iron stores

#### Proteins
- Amino acids are the foundation for neurotransmitters, like dopamine.
- Low levels of neurotransmitters can trigger a relapse
- Help rebuild muscle mass

#### Fats
- Omega-3 fatty acids have an anti-inflammatory effect
- Balance of Omega-3 and Omega-6 fatty acids help aid in the function of neurotransmitter receptors
- Polyunsaturated fatty acids are recommended to help reduce anxiety

#### Hydration
- Helps to ensure adequate absorption of medications
- Dehydration is a side-effect of detoxification
- Without enough fluids, people can get irritated or disoriented
Micronutrient Affect on Mood

Iron
• Low iron results in anemia, which can cause fatigue.
• Vitamin C facilitates iron absorption, calcium inhibits absorption
• Choose lean beef, turkey, chicken, pork, fish, dark green leafy vegetables, beans

Vitamin D
• Promotes better bone health, healthy immune system
• Low levels of neurotransmitters can trigger a relapse
• Choose low-fat dairy, fortified orange juice, salmon, eggs, and tuna

Vitamin C
• Helps promote immunity
• Symptoms include bleeding gums, bruising easily, and wounds that are slow to heal
• Oranges, pineapple, bell peppers, broccoli, strawberries, and potatoes are good sources

B vitamins and Folate
• Supports metabolism and producing energy
• B Vitamins: low-fat dairy, fish, poultry, eggs, fortified grains
• Folate: Spinach, orange juice, broccoli, peanuts, avocado, enriched grains
Nutrition Considerations for Education

• A diet with complex carbohydrates, moderate protein, and healthy fats, low sugar is recommended for sustained recovery

• Avoid high-protein diets as it can stress an already strained liver

• Review hunger and thirst cues, encourage consistent meals and snacks

• Watch for:
  ▪ Increased sweets intake
  ▪ Emotional eating
  ▪ Binge eating
Nutrition for medication-assisted therapy (MAT)
Pharmacotherapy Considerations

Methadone

• Constipation
• Abdominal pain
• Dry mouth
• Appetite abnormalities
• Low potassium and magnesium
• Weight gain
• Only drug approved in MAT for women who are pregnant or breastfeeding
• No alcohol consumption
Pharmacotherapy Considerations

Buprenorphine

- Constipation
- Nausea and vomiting
- Muscle aches and cramps
- Liver problems
- Distress and irritability
- Inability to sleep
- Fever
- No alcohol consumption
- Limited studies in pregnant women, risk of adverse effects have not been ruled out
Pharmacotherapy Considerations

Naltrexone

• Diarrhea
• Upset stomach and vomiting
• Joint or muscle pain
• Liver problems
• Headache
• Sleep problems/tiredness
• No alcohol consumption
• Category C drug, meaning the risk of adverse effects have not been ruled out for women who are pregnant or breastfeeding
Closing Remarks
Conclusion

• Nutrition education should be an integrated component of treatment and recovery
  ▪ Set reasonable goals that are achievable and build on success

• Depending on the severity of and length of under- or malnourishment, there are specific nutritional factors that should be monitored by healthcare providers

• Being aware of medication side effects to provide individualized nutrition education

• A balanced and healthy diet should consist of complex carbohydrates, moderate protein intake, healthy fats, and variety of fruits and vegetables to meet macro- and micronutrient needs
Questions?

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References


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