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October 26, 2017

Opioid Use and Nutrition

Nutritional Needs for Addiction, Treatment, and Recovery

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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

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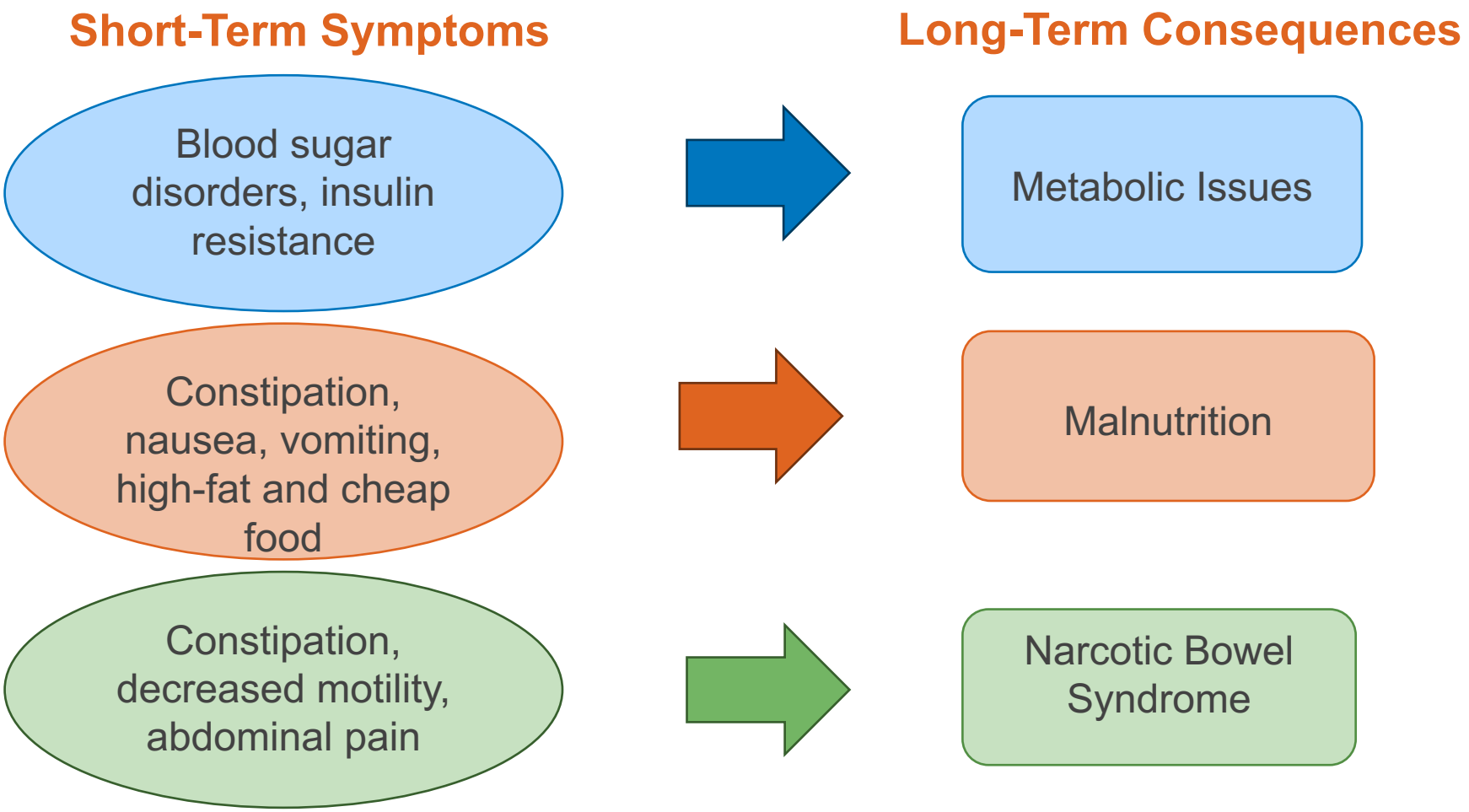
Opioids and the Effect on the Body

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



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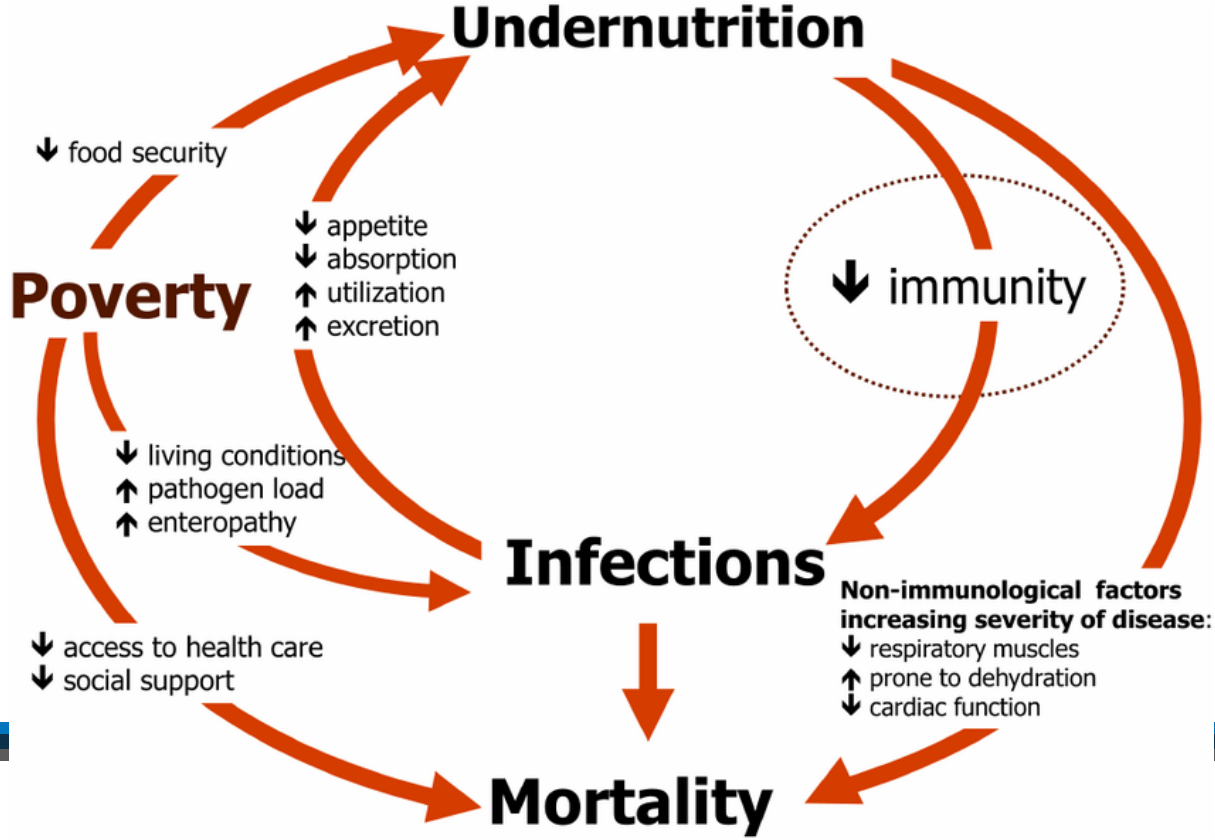
Opioids and the Effect on the Person

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.



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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

Committee on World Food Security: http://www.fao.org/cfs/home/blog/blog-articles/article/en/c/447521/

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

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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

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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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