

THE FOOD AS HEALTH ALLIANCE PRESENTS

NUTRITION BASICS *for* ADDICTION

IN PARTNERSHIP WITH UK COLLEGE OF MEDICINE

MALNUTRITION WITH DRUG & ALCOHOL ADDICTION

Malnutrition is common with substance abuse disorder. Patients will often forgo food in favor of drugs or alcohol, and many stimulants severely decrease appetite leading to rapid weight loss. In patients who are severely malnourished or who have not eaten for a period of days, food must be reintroduced slowly to prevent a potentially fatal condition known as refeeding syndrome. Since alcohol itself contains calories, excessive intake may lead to weight gain which can mask malnutrition. General dietary recommendations for recovery include eating several small meals throughout the day and including a nighttime snack. Patients should emphasize protein rich foods to combat muscle loss.

MICRONUTRIENT DEFICIENCIES

Even in patients without malnutrition, substance abuse can lead to chronic gut inflammation and damage to the liver, kidneys, and pancreas which may inhibit the digestion and absorption of nutrients. For example, damage to the beta cells of the pancreas may impact the release of insulin and increase risk of diabetes. Multiple vitamin and mineral deficiencies can lead to physical and neurological disorders as well as reduced immune function. Chronic dehydration may further exacerbate deficiencies in water soluble vitamins such as Vitamin C and B vitamins. The most common deficiency in those who abuse alcohol is Thiamin (B1) which is present in up to 80% of alcoholics. This deficiency, along with pyridoxine, folate and vitamin A promote:

- Altered cognitive states
- Night blindness
- Anemia

Hoyumpa A. M. (1986). Mechanisms of vitamin deficiencies in alcoholism. Alcoholism, clinical and experimental research, 10(6), 573-581.

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NUTRIENTS OF CONCERN WITH DRUG & ALCOHOL ABUSE

B VITAMINS

- B12: can lead to fatigue, weakness, and psychological problems.
- Thiamin (B1): may cause cognitive impairment and Wernicke's encephalopathy.
- Niacin (B3): can cause pellagra related diarrhea, dermatitis, or delirium.
- Riboflavin (B2): may lead to swelling/cracking of the lips and tongue, weakness, or rash.
- B6: can cause microcytic anemia, dermatitis, depression, confusion, and glossitis.

TRYPTOPHAN

- Essential amino acid.
- Precursor to the metabolites serotonin, melatonin, and kynurenine, responsible for mood, sleep, and CNS function.
- Absorption from food sources is negatively impacted by substance abuse.
- Found in milk, poultry, soybeans, cheese, chocolate, nuts, and seeds.

TYROSINE + PHENYLALANINE

- Essential amino acids.
- Phenylalanine is the precursor to tyrosine.
- Tyrosine is the precursor to norepinephrine and dopamine, responsible for mood, alertness, preventing depressive symptoms, and cognitive performance.
- Found in beef, dairy, poultry, oats, whole wheat, nuts, and seeds.

PROTEIN AND FIBER

- Many patients suffer from malnutrition and low BMI.
- Loss of muscle and body mass is common.
- Fiber is essential for repairing digestion and nourishing gut bacteria which are partially responsible for the production of neurotransmitters impacting sleep, mood, and energy levels.

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MEDICAL NUTRITION THERAPY FOR CIRRHOSIS OF THE LIVER

With long term alcohol abuse, patients will often develop cirrhosis of the liver. These patients will generally experience malnutrition and deficiencies of fat soluble vitamins due to malabsorption, decreased intake, and reduced production of the carrier proteins needed for proper digestion. Protein deficiency is also common, leading to loss of muscle mass and increased protein needs as they recover (1.2-1.5g/kg bodyweight). Ascites may also develop which causes feeling of early satiety and decreased calorie intake. When ascites is present, fluid and sodium restriction may be necessary as well.

USING THE DASH DIET FOR CIRRHOSIS

When the liver is damaged, it cannot properly process sodium resulting in extreme fluid retention known as ascites. The DASH diet was originally designed for managing heart disease and reducing high blood pressure, but it is also a great fit for patients with liver disorders as it prioritizes whole, vitamin and mineral rich foods while minimizing sodium. The DASH diet is similar to the Mediterranean diet in that it recommends set amounts of certain food groups, but the DASH diet is more specific in that it gives serving recommendations per day or per week.

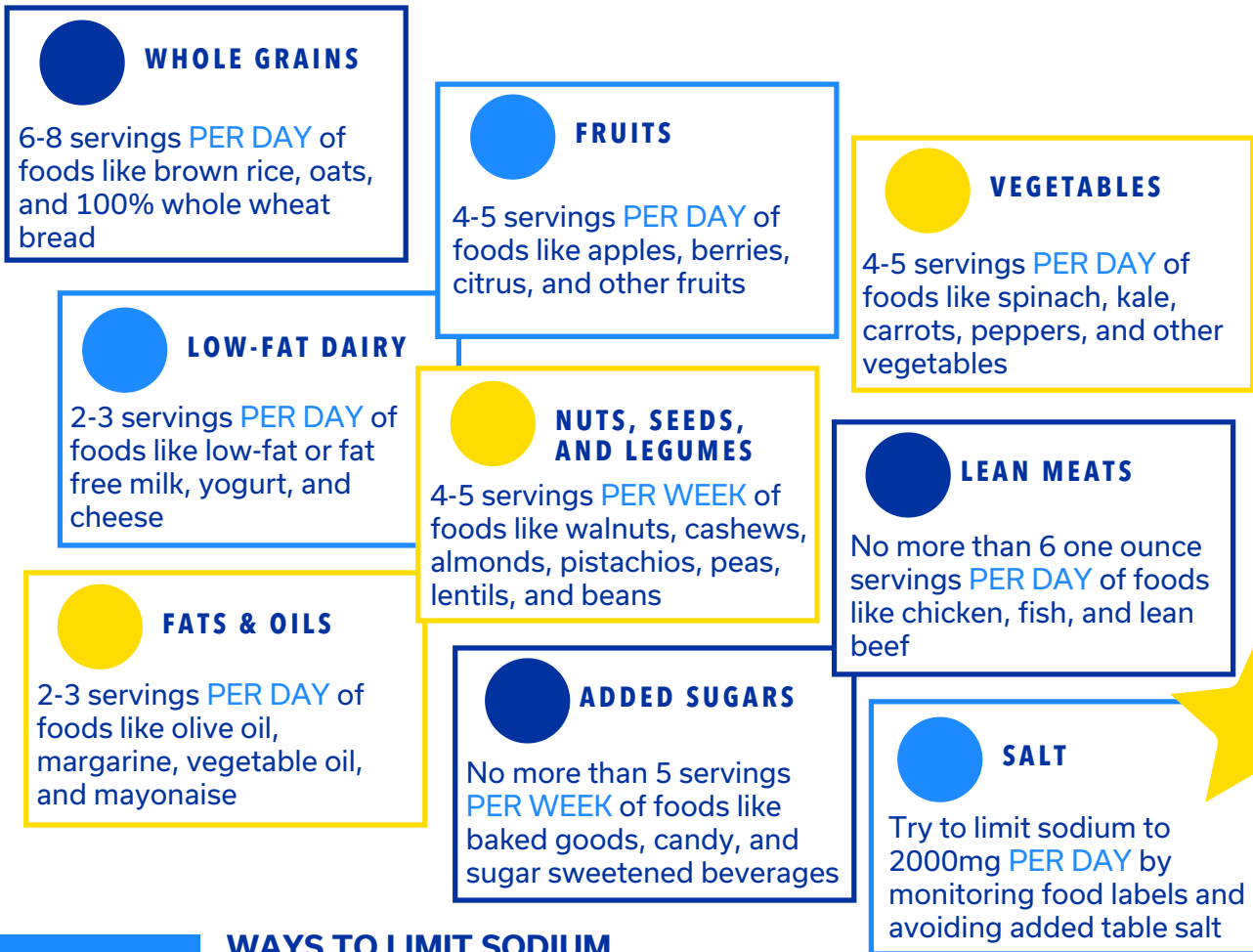


Theodoridis, X., et al. (2019). A systematic review of medical nutrition therapy guidelines for liver cirrhosis: Do we agree? Nutrition in Clinical Practice, 35(1).07.

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STRUCTURE OF THE DASH DIET



WAYS TO LIMIT SODIUM

- Learn to read nutrition labels
- Limit frozen meals, canned soups, fried foods, and pizza
- Limit eating out and prepare food at home
- Season foods with herbs and spices instead of salt

Mayo Foundation for Medical Education and Research. (2023, May 25). How to make the Dash Diet Work For you. Mayo Clinic. <https://www.mayoclinic.org/healthy-lifestyle/nutrition-and-healthy-eating/in-depth/dash-diet>

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BLACK BEAN SWEET POTATO CHILI

MAKES 6 SERVINGS

INGREDIENTS

- 1 lb lean ground beef
- 2 medium sweet potatoes, diced with peels on
- 1 small white onion, diced
- 1 green bell pepper, diced
- 1 jalapeño pepper seeded and diced (optional)
- 2 tablespoons of olive or other cooking oil
- 2 tablespoons chili powder
- 1 tablespoon cumin
- 2 teaspoons garlic powder
- 1 box (32 ounces) of low sodium beef stock
- 2 cans black beans, drained and rinsed
- 1 can no-salt-added diced tomatoes
- 1/4 cup fresh cilantro, chopped (optional)
- 1 lime (optional)
- Salt and pepper to taste

INSTRUCTIONS

1. Cook ground beef in a skillet over medium heat then drain in a colander
2. While the beef cooks, dice the sweet potatoes, onion, and pepper(s)
3. Heat oil in a large pot with a lid over medium heat
4. Cook veggies in the oil for about 5 minutes, stirring frequently
5. Add the chili powder, cumin, garlic powder, salt and pepper and stir well to coat the veggies
6. Add the box of beef stock and the drained beef
7. Bring to a boil, then cover and simmer for 10-15 minutes or until the potatoes are soft
8. Add the beans, tomatoes, and cilantro then cook for 5 more minutes or until everything is heated through
9. If desired, serve with a lime wedge and more fresh cilantro for garnish