# Icon of an appleGeneral Nutrition and Substance Use Recovery

**Purpose**

Develop a one-hour module that can be used in academic settings that addresses the role of nutrients during substance use recovery

**Objectives**

After completing this module, students will be able to:

* Explain how various substances compromise nutritional status
* Describe how improved nutrition during recovery influences health and wellbeing
* Highlight at least one benefit of each key nutrient (e.g., carbohydrates, protein) during recovery
* Provide examples of nutrition considerations when working with a client or patient

**Materials/Resources**

This module includes seven mini-lessons that reinforce the relationship between nutrition and substance use. Each mini-lesson is ten slides or less and includes:

 • Mini-slide deck with speaker script

 • Video recording of the mini-lesson presentations

 • Sample quiz/test question bank with answer key (7)

 • Sample writing prompt/discussion questions with rubric (2)

Test questions and writing prompts could be compiled to provide a comprehensive exam over the entire module. They can also be used as Canvas quizzes or discussion board prompts as well. The seven mini-lesson topics include:

 1. General Nutrition and Substance Use Disorder (SUD)

 a. PowerPoint with notes (embedded class activity)

 b. Recording

 c. Test questions

 d. Writing/Discussion Prompts

 e. Reference List

 2. Role of Protein in SUD

 a. PowerPoint with notes

 b. Recording

 c. Test Questions

 d. Reference List

 3. Role of Carbohydrates in SUD

 a. PowerPoint with notes

 b. Recording

 c. Test Questions

 d. Reference List

 4. Role of Dietary Fat in SUD

 a. PowerPoint with notes

 b. Recording

 c. Test Questions

 d. Reference List

 5. Role of Micronutrients in SUD

 a. PowerPoint with notes

 b. Recording

 c. Test Questions

 d. Reference List

 6. Role of Hydration in SUD

 a. PowerPoint with notes

 b. Recording

 c. Test Questions

 d. Writing/Discussion Prompts

 e. Reference List

 7. Other Nutrition-Related Considerations during SUD

 a. PowerPoint with notes

 b. Recording

 c. Test Questions

 d. Reference List

 8. Comprehensive Reference List

 9. Comprehensive Text Question Bank

**Module Outline**

Mini-Lesson 1: General nutrition and substance use disorder (SUD)

 • Explain how nutritional status is compromised during substance use

 o Emphasis on mechanisms that contribute to malnutrition

 o Lack of balanced dietary patterns

 o Changes in hormonal signaling related to satiety and hunger

 o Describe how nutritional status is impacted differently depending on the substance use

 • Explain how adequate nutrition supports healing during recovery

 o Highlight how the detoxification period during recovery can exacerbate nutritional challenges and deficiencies

 o Transition into section 2 where we discuss the importance of the six key nutrients in recovery and healing

 o Introduce concept that all macronutrients, micronutrients, and water are important during SUD recovery

 ▪ Provide a brief overview of each of the six essential nutrients and the benefits of a balanced diet

**Mini-Lesson 2: Role of Protein in SUD**

 ▪ Explain the impact of substance use on protein intake

 • Protein intake is low

 • Alcoholism impairs protein metabolism

 ▪ Describe the role of amino acids in neurotransmitter synthesis and regulation

 • Define neurotransmitter

 • Dopamine/serotonin

 ▪ List benefits of protein on healing, repairing, and restoring body functions

 • Potential reduction in cravings, improved mood, increased hormone production

 ▪ Identify considerations of protein intake during recovery

**Mini-Lesson 3: Role of Carbohydrates in SUD**

 ▪ Define carbohydrates and their role in a balanced diet

 ▪ Explain the impact of substance use on carbohydrtate intake

 • High rates of refined carbohydrate foods and beverages during SUD

 ▪ Describe the role of carbohydrates in brain biochemistry

 • Contribution to neurotransmitter signaling

 • Overlap between food addiction and SUD linked to carbs

 • Craving confusion

 ▪ Explain the importance of high-quality carbohydrate foods to help restore energy, reduce fatigue, regulate blood sugar, and support GI health with an emphasis on fiber

 • The slow introduction of fiber to restore GI health and motility

**Mini-Lesson 4: Role of Dietary Fat in SUD**

 ▪ Connection between unsaturated fat and improved mental health

 ▪ Role of dietary fat in satiety and hunger cues

**Mini-Lesson 5: Role of Micronutrients in SUD**

 ▪ Group together micronutrients and explain their role in general health and wellbeing

 ▪ Provide specific examples of how micronutrients support recovery

 • Vitamins serving as antioxidants to decrease inflammation and reduce cellular levels of oxidation

 • Energy metabolism and cellular respiration

 • Literature exploring micronutrients and mental health

 ▪ Supplementation

**Mini-Lesson 6: Role of Hydration in SUD**

 ▪ Benefits of hydration

 ▪ Define dehydration

 ▪ Explain how SUD and recovery exacerbate dehydration

 ▪ Dehydration and common symptoms experienced during withdrawal and recovery

 ▪ Sources of hydration and concerns related to sugary and highly caffeinated beverages

**Mini-Lesson 7: Other Nutrition-related Considerations during SUD**

 • Different populations choose different substances for different reasons

 o Important consideration when working with this population

 o Men and women

 o The choice to use substances may be linked to perceived physical health benefits, weight status, and/or body image

 • Describe how complex nutrition is and the other influences that impact nutritional status and food choices

 o Cravings, internal hunger cues

 o Disordered eating

 o Physical activity

 o Pre-existing conditions and infectious disease

 o Oral health

 • Strategies to be explored as ways to support recovery

 o Gender-responsive approaches

 o Lifestyle skills and resources required for nutritious eating

 o Pharmacotherapy