

# Diet in Chronic Medical Problems

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## Objectives

- Understand the impact of diet in chronic illnesses and overall health.
- Learn about diet as adjunct therapy.
- Learn to incorporate diet as part of your care plan.

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## Pre-Test Question

1) There is no positive correlation between diet and health.

True

False

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## Pre-Test Question

2) Which of the following diets is best for patients for PCOS?

- A. DASH
- B. Mediterranean
- C. Paleo
- D. Keto

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## Pre-Test Question

3) Which of the following diets is not beneficial in patients with inflammatory diseases?

- A. Paleo
- B. Keto
- C. Vegetarian/Vegan
- D. High Protein Diet/ Low Carb

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## Nutrition and Health

- According to the 2015-2020 Dietary Guidelines report:
  - 50% of American adults have one or more preventable chronic diseases. Many that are related to poor quality eating patterns and physical inactivity.
  - 2/3 of adults and nearly 1/3 of children and youth are overweight and obese.
  - In 2008, medical costs associated with obesity were estimated to be \$147 billion.

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# Hyperlipidemia

- Paleo diet:
  - Decreased LDL
  - Decreased Triglycerides
  - Increased HDL
- Mediterranean diet
  - Small decrease in LDL
  - No effect in Triglycerides
  - Decreased HDL

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# Hyperlipidemia

- Low Fat Diet
  - Decreases LDL, total cholesterol and TG.
- Portfolio Diet
  - Decreases LDL and TG and does not impact HDL.
    - Ideal for patients with mildly elevated cholesterol or patients who cannot take statins.
- High Protein/Low Carb Diet
  - Decreases TG, Increases HDL, Increases LDL size( Vegetarian Diet)

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# Diabetes

- Fasting/ KETO
  - Forces body to rely on Fats as energy source
    - Decreases insulin insensitivity
- High Protein/Low Carb Diet/Paleo
  - decrease FBG, decreases post-prandial insulin,

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# Hypertension

- DASH diet
  - Decreased sodium levels= decreased BP
- Paleo
  - Decreased BP
- High Protein/ Low Carb Diet
  - decreases BP

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# Hypothyroidism

- Vegan diet
  - More scientific evidence needed.
  - Croatian study published in 2017, suggest that diets high in animals fats increase levels of thyroid peroxidase antibodies (TPO-Ab0 and/or Thyroglobulin antibodies (Tg-Ab)
- High protein diet
  - Foods to avoid:
    - Millet
    - Highly processed foods
  - Protein is thermogenic
    - Can help stimulate an already sluggish metabolism.

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# Polycystic Ovarian Syndrome

- Keto Diet/Low Carb Diet
  - PCOS patients are insulin resistant
  - Keto diet forces body to use fat stores
    - Greater satiety
      - Lower BMI
        - Decrease insulin resistance
    - All these may be enough to balance hormones

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# Metabolic Syndrome

- Diets
  - Low Fat
  - High-Protein Diet/Low Carb
  - Mediterranean Diet
- All the diets above directly impacts obesity which help decrease the risk of metabolic syndrome.

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# Inflammatory Diseases

- Low Carb Diet
  - Refined carbs and processed foods are inflammatory.
- Paleo Diet
  - Theory that whole grains and legumes have the highest concentrations of anti-nutrients.
- Vegan/Vegetarian
  - High animal fat diets associated with increase inflammatory antibodies

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# Nutritional Education

- Barriers
  - Lack of education and training in medical school and nursing programs.
  - Not enough Health Care Professional to educate patients on diet.
  - Not enough time to actually talk about diet.
  - Little to no financial incentive.

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# Nutritional Education

- Strategies to help improve nutrition education:
  - Increase knowledge among all health care providers about food/nutrition and relationship with overall health.
  - Contribute to efforts that will lead to health-promoting dietary changes for health-care professionals, their clients and general population.
  - Intensify research on the relationship between food, nutrition, and health and use this to promote consumption of healthful diet.
- <https://www.ncbi.nlm.nih.gov/books/NBK235263/>

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Questions??

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