Mediterranean Diet, Low Fat Diet, Low Carb Diet, Ketogenic Diet, Other Diet

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Clinical Nutritionist

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FAD and FAD diets

She went through that 14 day diet, But all she lost was 2 weeks
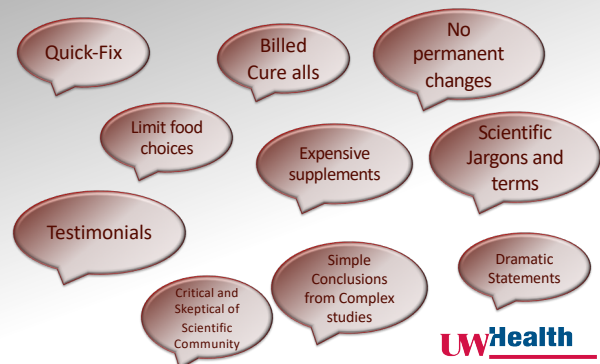
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Outline

- Recognizing FAD diet
- Why do people go for FAD diets?
- Popular diet trends
- What works? Evidence
  - Fact *vs.* FAD *vs.* Fiction
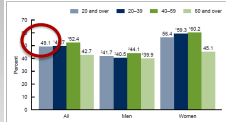- Supporting your patients to make heart healthy choices

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Recognizing a FAD diet

- Quick-Fix
- Billed Cure alls
- No permanent changes
- Limit food choices
- Expensive supplements
- Scientific Jargons and terms
- Testimonials
- Critical and Skeptical of Scientific Community
- Simple Conclusions from Complex studies
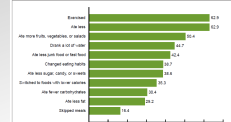- Dramatic Statements

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Why FAD Diets?

Martin CB, Herrick KA, Sarafrazi N, Ogden CL. Attempts to Lose Weight Among Adults in the United States, 2013-2016. NCHS Data Brief. 2018 Jul;(313):1-8.

Obesity (2015–2016) (Hales CM, Carroll MD, Fryar CD, Ogden CL Prevalence of Obesity Among Adults and Youth: United States, 2015-2016. NCHS Data Brief. 2017 Oct;(288):1-8

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Types of Diet

Coconut oil

Intermittent Fasting

Varying levels of Macros
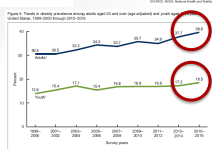
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Types of Diet

Diets at different levels of Macronutrients
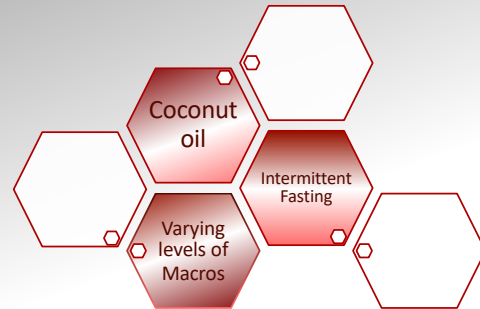
Anti-Carb

<20% Carbs; >60% Fat; >20% Protein Example Atkin's, Keto, Protein Power

<30% Carbs; >40% Fat; >20-<30% Protein Example – Carb Addict's Diet

<45% Carbs; <30% Fat; ~30% Protein Example – Zone, Sugar Buster's

45 -65% Carbs; 25-35% Fat; 15-20% Protein Example Jenny Craig, Nutrisystem, Weight Watchers, DASH, USDA, AHA

>65% Carbs; <20% Fat; 15% Protein Example Pritkin

>70% Carbs; <10% Fat; 15% Protein Example Dean Ornish

Anti-Fat

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Low-Carb Diets – Key to weight loss?

Anti-Carb

Sugar Buster's, Zone (<45%)

Carb Addict's Diet (<30%)

Atkin's, Keto, Protein power (<20 gm/day)

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Low Carb Diets – The Premise

Figure 1. Variation in primary fuel source between a typical Western diet and a ketogenic diet. On a traditional Western diet, blood glucose rises after carbohydrate-rich meals (left), while on a ketogenic diet, carbohydrate intake is limited to only small quantities of those with low glycemic response, resulting in rises in serum ketone concentrations (right).
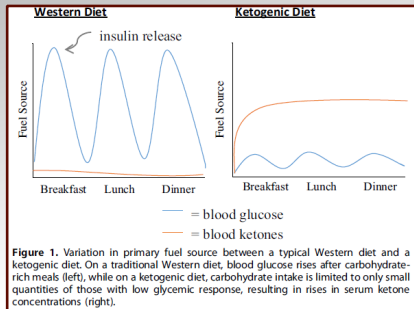
Roehl K, Sewak SL. Practice Paper of the Academy of Nutrition and Dietetics: Classic and Modified Ketogenic Diets for Treatment of Epilepsy. J Acad Nutr Diet. 2017 Aug;117(8):1279-1292.

Low Carb Diets – Are they safe?

Table 1. Blood levels during a normal diet, a ketogenic diet and diabetic ketoacidosis [55]

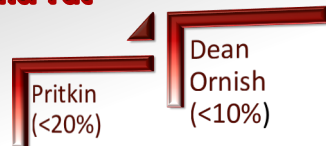| Blood levels	Normal diet	Ketogenic diet	Diabetic ketoacidosis
Glucose, mg/dl	80–120	65–80	>300
Insulin, µU/l	6–23	6.6–9.4	≅0
Ketone body concentration, mM	0.1	7/8	>25
pH	7.4	7.4	<7.3

Paoli A, Grimaldi K, Toniolo L, Canato M, Bianco A, Fratter A. Nutrition and acne: therapeutic potential of ketogenic diets. Skin Pharmacol Physiol. 2012;25(3):111-7.

Low-fat/Very low-fat diets

Diet for the heart

Anti-Fat

Pritkin (<20%)
Dean Ornish (<10%)

Balanced Macronutrient Composition

Commercial Example Jenny Craig Nutrisystem Weight Watchers

Non Commercial Example American Heart Association, DASH, US Healthy Eating guidelines

Promote slow and steady rate of WL
• Add physical activity
• Behavior changes
• Calorie deficit
• Allow for greater range of food choices
• Nutritional adequate

Limit Sodium, Saturated fats, refined carbs
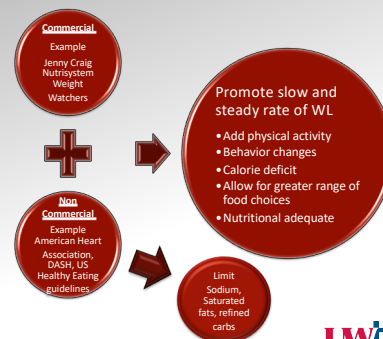
Based on sound scientific principles

Intermittent Fasting
Is the wait worth the weight?

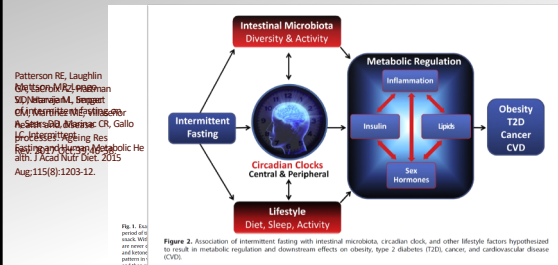| Complete alternate-day fasting	These regimens involve alternating fasting days (no energy-containing foods or beverages consumed) with eating days (foods and beverages consumed ad libitum).
Modified fasting regimens	Modified regimens allow for the consumption of 20% to 25% of energy needs on scheduled fasting days. This regimen is the basis for the popular 5:2 diet, which involves severe energy restriction for 2 nonconsecutive days a week and ad libitum eating the other 5 days.
Time-restricted feeding	These protocols allow individuals to consume ad libitum energy intake within specific windows, which induces fasting periods on a routine basis. Studies of <3 meals per day are indirect examinations of prolonged daily or nightly fasting periods.
Religious fasting	A wide variety of fasting regimens are undertaken for religious or spiritual purposes.
Ramadan fasting	A fast from dawn to sunset during the holy months of Ramadan. The most common dietary practice is to consume 1 large meal after sunset and 1 lighter meal before dawn. Therefore, the feast and fast periods of Ramadan are approximately 12 h in length.
Other religious fasts	Latter-day Saints followers routinely abstain from food and drink for extended periods of time. Some Seventh-day Adventists consume their last of 2 daily meals in the afternoon, resulting in an extended nighttime fasting interval that may be biologically important.

Figure 1. Types of intermittent fasting regimens that are hypothesized to influence health outcomes.

Patterson RE, Laughlin GA, LaCroix AZ, Hartman SJ, Natarajan L, Senger CM, Martínez ME, Villaseñor A, Sears DD, Marinac CR, Gallo LC. Intermittent Fasting and Human Metabolic Health. J Acad Nutr Diet. 2015 Aug;115(8):1203-12.

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Intermittent Fasting
Premise

Patterson RE, Laughlin GA, LaCroix AZ, Hartman SJ, Natarajan L, Senger CM, Martínez ME, Villaseñor A, Sears DD, Marinac CR, Gallo LC. Intermittent Fasting and Human Metabolic Health. J Acad Nutr Diet. 2015 Aug;115(8):1203-12.

Figure 2. Association of intermittent fasting with intestinal microbiota, circadian clock, and other lifestyle factors hypothesized to result in metabolic regulation and downstream effects on obesity, type 2 diabetes (T2D), cancer, and cardiovascular disease (CVD).

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Coconut oil

Medium Chain Triglycerides

↑ Energy Expenditure
↑ Satiety
↑ Thermogenesis
Reduce Food intake

- Coconut oil
  - 90% Saturated Fat
  - 4% MCT
  - 47.7% Lauric Acid
- MCT oil ≠ Coconut oil

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Scientific Evaluation of Claims

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Slide 1

Dietary Approaches
Associated with weight loss

Targeting individual food group

Higher protein diet (>25%)

Higher protein Zone diet (>30%)

Lacto-ovo vegetarian

Low-Carb diet (<20g)

Low fat moderate diet (<30%)

AHA

glycemic load

Low-fat (<30% High Dairy >4 servings/day)

Mediterranean style diets

Macronutrient targeted diets

Moderate protein (~12%)

High and Low glycemic index

Any evidence based diet that restricts certain types of food in order to create energy deficit by reduced food intake

Strength of Evidence - High

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2013 Guidelines Reference

Slide 2

Weight-loss achieved and weight-loss pattern

Average Weight loss
- Maximum at 6 months = 4 to 12 kgs
- Smaller losses maintained up to 2 years

Slow weight regain is common
- Weight loss at 1 year = 4-10 kgs
- Weight loss at 2 years = 3 - 4 kgs

Average Calorie intake/day
- 1200-1500kcals/day women
- 1500-1800kcals/day men
- OR create Calorie deficit of 750-500kcals/day

Strength of Evidence - High

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2013 Guidelines Reference

Slide 3

CVD risk parameters
(In presence of weight-loss)

Strength of Evidence - High

3-5% Sustained WL → ↓ TG, BG, A1C and diabetes → Greater weight reduction → Reduces BP, improves LDL-C, HDL-C, further reduces TG and BG and need for medications

2013 Guidelines Reference

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Slide 4

CVD risk parameters

- **Low-fat high carb diet:**
  - Greater reductions in LDL-C
  - Lesser reductions in TG
  - Lesser increase in HDL-C

- **Low- carb high fat diet:**
  - Lesser reductions in LDL-C
  - Greater reductions in TG
  - Greater increase in HDL-C

2013 Guidelines Reference

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Mediterranean Vs. DASH diet

BP:
- Reduced BP by 6–7/2–3 mm Hg (Compared to minimal advice to consume a low-fat dietary pattern)
- Adherence to a Med pattern was associated with lower (2–3/1–2 mm Hg) – only in healthy young adults
  - *Strength of Evidence: Low*

Lipids:
- Compared to minimal or no dietary advice, had no consistent effect on plasma LDL–C, HDL–C, and TG, in part due to substantial differences and limitations in the studies.
  - *Strength of Evidence: Low*
    AHA/ACC – Mostly recommends DASH diet for prevention.

BP:
- When food was supplied to adults with BP 120–159/80–95 mm Hg, the DASH Diet, when compared to a typical American diet of the 1990s, lowered BP by 5–6/3 mm Hg.
  - *Strength of Evidence: High*

Lipids
- When food was supplied to adults with a total cholesterol level <260 mg/dL, LDL–C <160 mg/dL, the DASH Diet, when compared to a typical American diet of the 1990s, lowered LDL–C by 11 mg/dL, HDL–C by 4 mg/dL, & had no effect on TG
  - *Strength of Evidence: High*

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Macronutrient Manipulation Diets
Summary - FACT

- Effective Diet and Lifestyle Interventions
  - Promote behavior changes
  - Support adherence to a calorie-restricted diet
  - Nutrient dense (Macro and micronutrient composition)
  - Provide greater food choices

2013 Guidelines Reference

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Intermittent Fasting
Weight loss and CVD parameters

Intermittent fasting – (13 trials, 2-8 week duration)
- 1.3% - 8% weight loss
- Seems to improve metabolic parameters
- No comparison groups

Alternate day fasting – 3 studies – Comparison group
- Weight loss comparable to the CER (Continuous energy restriction) group
- Reduction in blood glucose and insulin
- Intense hunger reported

Modified alternate-day fasting
- 3.2% (12 wk) compared to control group
- 8% (8 wk) weight loss in absence of comparison group
- Limited and mixed evidence for ↓ insulin and improved lipids

Patterson RE, Laughlin GA, LaCroix AZ, Hartman SJ, Natarajan L, Senger CM, Martínez ME, Villaseñor A, Sears DD, Marinac CR, Gallo LC. Intermittent Fasting and Human Metabolic Health. J Acad Nutr Diet. 2015 Aug;115(8):1203-12.

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Intermittent Fasting
American Heart Association

- Irregular patterns appear less favorable for achieving healthy cardio-metabolic profile
- Intentional Eating with mindful attention to timing and frequency of eating occasions could lead to healthier lifestyle and cardio metabolic risk management

St-Onge MP et al. Meal Timing and Frequency: Implications for Cardiovascular Disease Prevention: A Scientific Statement From the American Heart Association. Circulation. 2017 Feb 28;135(9)

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Intermittent Fasting
GAPS

Unknown

- Optimal fasting regimen (length of fasting interval, fasting # of days per week, degree of energy restriction, diet behaviors on non-fasting days)
- Prolonged nightly fasting in humans and impact on health – does it show sustained improvements

More research needed

- Randomized trials of longer duration (free living adults) in diverse population including the more vulnerable population
- Behavior and metabolic changes are sustainable
- Impact on overall energy intake, sleep, energy expenditure

Patterson RE, Laughlin GA, LaCroix AZ, Hartman SJ, Natarajan L, Senger CM, Martínez ME, Villaseñor A, Sears DD, Marinac CR, Gallo LC. Intermittent Fasting and Human Metabolic Health. J Acad Nutr Diet. 2015 Aug;115(8):1203-12.

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Intermittent Fasting
Summary - FAD

Promising non-pharmacologic approach to improving health at the population level with multiple public health benefits

Patterson RE, Laughlin GA, LaCroix AZ, Hartman SJ, Natarajan L, Senger CM, Martínez ME, Villaseñor A, Sears DD, Marinac CR, Gallo LC. Intermittent Fasting and Human Metabolic Health. J Acad Nutr Diet. 2015 Aug;115(8):1203-12.

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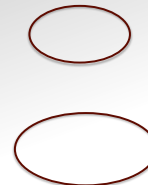
Coconut oil
Weight loss

- Studies conducted with MCT oil show that:
  - Doses of ~ 20-25 g may have an effect on satiety and body weight (by increasing expenditure and thermogenesis)
    - Dose as low as 3-5 g showed some benefits in very few studies
- Studies conducted with coconut oil show no beneficial impact on weight loss
  - Significant amount of coconut oil would be required to obtain sufficient amounts of medium chain triglycerides for weight loss
- Studies comparing coconut oil and MCT as a comparator are needed

Clegg ME. They say coconut oil can aid weight loss, but can it really? Eur J Clin Nutr. 2017 Oct;71(10):1139-1143.

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Coconut oil
Cardio-metabolic parameters

- Lauric, myristic palmitic and stearic acids are the most common types of saturated fatty acids in coconut oil.

Mensink RP. *Effects of Saturated Fatty Acids on Serum Lipids and Lipoproteins: A Systematic Review and Regression Analysis.* Geneva, Switzerland: World Health Organization; 2016.

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Coconut oil
Cardio-metabolic parameters

HDL-cholesterol

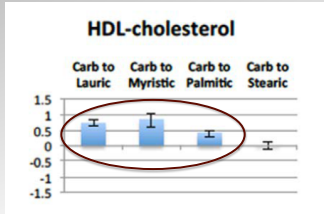Replacing carbs with individual Saturated fats – increases HDL cholesterol

Mensink RP. *Effects of Saturated Fatty Acids on Serum Lipids and Lipoproteins: A Systematic Review and Regression Analysis.* Geneva, Switzerland: World Health Organization; 2016.

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Coconut oil
Summary - Fiction

Support For
- Prevention and treatment of atopic dermatitis
- May prevent hair damage d/t protein loss during grooming processes and UV exposure
- **Impacts LDL cholesterol negatively**

Support Against
- Prevention or treatment of Alzheimer's disease, bone loss, or glycemic control and weight loss

Wallace TC. Health Effects of Coconut Oil-
A Narrative Review of Current Evidence. J Am Coll Nutr. 2019 Feb;38(2):97-107.

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Support AND Empower your patients
to
Make Heart Healthy Eating Choices

Prochaska, J.O., Butterworth, S., Redding, C.A., Burden, V., Perrin, N., Lea, Michael, Flaherty, Robb M., and Prochaska, J.M. (2008). Initial efficacy of MI, TTM tailoring, and HRI's in multiple behaviors for employee health promotion. *Preventive Medicine*, 46, 226-231.

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What Works.....
Calorie Balance

Manore MM, Larson-Meyer DE, Lindsay AR, Hongu N, Houtkooper L. Dynamic Energy Balance: An Integrated Framework for Discussing Diet and Physical Activity in Obesity Prevention-Is it More than Eating Less and Exercising More? Nutrients. 2017 Aug 19;9(8).

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What Works…..
ASK Questions

- Why do you want to try this diet?
- What other approaches have you tried in the past?
- Is this diet a permanent lifestyle change?
- If no, what is your plan after you switch back to your regular eating pattern to maintain weight loss?
- What is the impact of the diet you have chosen on other medical issues that you have?

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How can you assist with?
Lower Calories and lose weight

Weight-loss
- Create ~500 - 750 calorie/day deficit for weight loss
- ~1200-1500 kcals/d for women & 1500- 1800/d kcals for men
- High Intensity behavior modifications (>14 sessions in 6 months)
- - Any evidence based diet
  - Patient preference
  - Health Status
  - Refer to nutrition professional
  - >6 months lifestyle intervention
- -Very low calorie diet (<800 kcal/day) under medical supervision

Weight-loss maintenance
- > 1 year participate in weight loss maintenance program (Diet, Exercise, Behavior modifications)
- One on one contact with trained interventionist
- Physical activity – 200-300 minutes per week
- Check weight regularly
- Consume low calorie diet for maintaining lower body weight

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How can you assist with?
Make heart healthy dietary choices - ↓ LDL and BP

Unsaturated fats and diet pattern
- Oils (liquid)
- Nuts and Seeds
- Fatty Fish (2-3/wk)
- Plant Stenols and Sterols (1-2g/day)
- Avocados
- Skinless chicken, turkey
- More egg whites
- More fruits, vegetables, low-fat dairy products
- Add lentils, beans, soy, tofu
- DASH, USDA, American Heart Association

Saturated and trans fats, Sodium
- Sat fats - 5-6% of total cal/d
- 0% to minimum trans Fats
- Limit red meat (2 meals/wk)
- Avoid margarine, limit butter, avoid tropical oils
- Limit sweets, sugar sweetened drinks
- Limit yolk to 4 yolks/wk
- Read labels – avoid hydrogenated oils
- Avoid deep fried foods
- Sodium 2000mg/day – ¾ tsp salt
  - Further reduction to 1500mg has more benefits on reducing BP
  - If goal can't be reached then reduce by 1000 mg per day

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What Works…..
Collaborative SMART goal setting

Specific	Measurable and meaningful	Action Oriented	Realistic	Time Bound
What do you want to achieve in your area of focus?	Why is this goal important to you?	What steps will you take to achieve it?	How do you know that you can achieve this goal?	By when do you want to achieve this goal?

Example 1 – I want to lose 10 lbs over 3 months

Example 2 – I will eat 2 servings of vegetables 5 out of 7 days a week

Example 3 – I will walk 4/5 weekdays during lunch break for 20 minutes

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What Works.....
Small changes can promote meaningful health benefits

5 -10% Weight loss = typical
10 - 15% = very good
Weight loss > 15% = excellent response

Change	Effect	Amount
2.5 – 5.5 kg weight loss @ > 2 years	↓ risk of Type II DM	30-60%
2-5% weight loss in 1-4 years	↓ A1C in diabetics	0.2-0.3%
5-8 kg weight loss	↓ LDL / ↑ HDL	5 mg/dl / 2-3 mg/dl
3 kg weight loss	↓ TG	15 mg/dl
5% Weight loss	↓ BP	2 and 3 mm HG in systolic and diastolic
1 Kg weight loss	↓ CRP	0.13 mg/l

Strength of Evidence - High

2013 Guidelines Reference

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The perfect diet

Strength of Evidence - High
A Variety of Approaches help!

Calorie restricted diet

Preference and health status

Refer to a nutrition professional

With physical activity and other behavior changes

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Resources

DASH Eating plan
https://www.nhlbi.nih.gov/health-topics/dash-eating-plan
Your Guide to lowering Blood pressure with DASH
https://www.nhlbi.nih.gov/files/docs/public/heart/new_dash.pdf
Your guide to lowering Blood pressure with DASH brochure
http://www.riversidefmcape.com/high_blood_pressure.pdf
American Heart Association – Diet & Lifestyle Recommendation
https://www.heart.org/en/healthy-living
American Heart Association lifestyle recommendations article
https://www.ahajournals.org/doi/full/10.1161/01.cir.0000437740.48606.d1
2015 Dietary Guidelines for Americans
https://health.gov/dietaryguidelines/2015/guidelines/
DGA 2015 powerpoint pdf
https://www.ams.usda.gov/sites/default/files/media/DietaryGuidelinesFinal.pdf
USDA diet pattern recommendations
https://www.cnpp.usda.gov/sites/default/files/usda_food_patterns/HealthyUS-StylePattern-RecommendedIntakeAmounts.pdf

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Mediterranean Diet

Key features: The Cretan Diet -
- Significant amounts of olive oil, olives, fruits, nuts and vegetables (especially wild greens)
- Moderate amounts of fish, cheese and red wine
- Very small amounts of eggs, meat and milk
- Abundant amounts of antioxidants, fiber, omega-3 fatty acids, vitamins E and C, phytochemcials and selenium
- 37% of their calories coming from fats (mostly from olive oil)
- High amounts of omega-3 fatty acids from fish and large amounts of wild plants, nuts, legumes and figs that were all high in ALA (Alpha-linolenic acid)
- Keys, A. Coronary heart disease in seven countries, 1970. Nutrition 1997, 13, 250–252.
- De Lorgeril, M.; Renaud, S.; Mamelle, N.; Salen, P.; Martin, J.L.; Monjaud, I.; Guidollet, J.; Touboul, P.; Delaye, J. Mediterranean alpha-linolenic acid-rich diet in secondary prevention of coronary heart disease. Lancet 1994, 343, 1454–1459.
- De Lorgeril, M.; Salen, P.; Martin, J.L.; Monjaud, I.; Delaye, J.; Mamelle, N. Mediterranean diet, traditional risk factors, and the rate of cardiovascular complications after myocardial infarction: Final report of the lyon diet heart study. Circulation 1999, 99, 779–785.

2015 US dietary Guidelines for Americans

- Recommends a "healthy eating pattern:"
  - More fruit, vegetables & grains, at least 1/2 of which are whole grains
  - Fat-free or low-fat dairy
  - A variety of protein foods (Example - Seafood, lean meats & poultry, eggs
  - Legumes, nuts, seeds & soy products
  - Less salt and use mostly oils
- New Recommendations:
  - Emphasis on optimizing types of dietary fat rather than reducing total fat
    - Consume a diet rich in unsaturated fats
  - Limit on consumption of dietary cholesterol to 300 mg per day is not included in the 2015 edition
    - Does not suggest that dietary cholesterol is no longer important
    - Current average intake of cholesterol is ~270 mg/day (Under - previously recommended 300 mg)
  - Adds limit on total sugars to be consumed per day
- Limits Saturated fats and trans fats, added sugars, and sodium
  - < 10 % of calories per day from added sugars and saturated fats
  - < 2,300 mg per day of sodium
  - If alcohol is consumed, it should be consumed in moderation (0-1 drinks/day for women and 0-2 drinks/day for men)

DASH Diet
Dietary approaches to stop hypertension

Emphasizes:
- Fruits and vegetables; Whole grains and nuts
- Low fat milk products; poultry and fish

Rich in:
- Potassium, magnesium, & calcium
- Protein and fiber

Low In:
- Sweets and Sodium (~2000 or1500 mg/day)
- Sugar-sweetened beverages and red meats
- Sat (<5-6%), <1% trans fats & total fat (~30%) and cholesterol

Recommends:
- Losing weight if necessary
- Physical activity – 2 hrs 30 mins per week @ moderate intensity
- Eventually 5 hours per week for more health benefits

Role of the PCP

- **Start the conversation:**
  - Strengthen the patient-physician relationship
  - Enhance the quality of care received
  - Enhance the patient's satisfaction with treatment

- Wave
  - Tool designed to encourage provider & patient dialogue about the pros and cons of the patients' current status related to Weight, Activity, Variety and Excess.

ASK

- First Step: Assess – How to use WAVE Nutrition Counseling Tool
  - W=Weight:
    - Review BMI, blood pressure, blood sugar, lipids to screen for Metabolic Syndrome
  - A=Activity:
    - Ask about physical activity and/or movement in general
  - V=Variety and E=Excess:
    - Conduct brief nutrition assessment
      - Intake of total fat and trans fats foods? (Goal: Lean meats & healthy fat)
      - Intake of high fiber foods? (Goal: daily or several times per week)
      - Number of fruits and vegetables (Goal: at least 5 per day)
      - Use of sweetened beverages (Goal: reduce or eliminate)
      - Use of alcohol? (Goal: ≤2 per day for men & ≤1 per day for women)
      - Smoker? (Goal: Eliminate)

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Advise

Give clear, specific and personalized behavior change advice.
You might say:
- *"Based on what you know about your lipids, where is a place you may be willing to start in order to modify your eating and exercise behaviors?"*
- *Hint: Their response will identify where the patient is in their readiness to change*

For patients taking medication for hypertension, diabetes or lipids:
- *"What you choose to eat and drink is important even if you are taking medication since it could help the medicine do a better job. With a healthy diet and weight loss, you may be able to save money by cutting down on the amount of medicine you take. If that's the case, where would you be willing to start?"*

For a patient NOT ready to change behavior, add:
- *"I'd like to help you make changes in your diet and be more active when you are ready."*

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Agree

Collaborate with patient to select treatment goals & methods

- For patients NOT ready to change behavior:
  - "Is it okay if I ask you about (eating, exercise, meds, etc) again at our next visit?"

- Possible goals for patient ready to change:
  - Keep a food and exercise record to help increase awareness
  - Refer to a Registered Dietitian
  - Return for progress check in 2-4 weeks

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Assist & Arrange

- Assist:
  - Help patient acquire knowledge, skills and support for behavior change through an Action Plan.
  - Provide clear, concise handouts and community or electronic resources, based on patient learning style and readiness to change
- Arrange:
  - Schedule follow-up
    - Follow-up Appointment and/or Referral to Specialty Clinic
    - Give patient a copy of the Action Plan

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Keep it Simple & Refer

Regardless of which diet you or your patient wants to follow, consider the following and guide them in a healthy direction.

- Timing of meals/snacks ~every 4 hours
- Nutrient intake and balance
  - Intake of fruits and vegetables
  - Include a protein at each meal & snack
  - 2 food groups at a snack
  - 3 food groups at meals
- Reduce simple sugar consumption
- Address source of fat intake
- Lower sodium intake
- Increase fiber intake
- Address alcohol consumption
- Encourage moderate physical activity

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Example – Lipid Disorder

- **Sample Diet**
- Breakfast:
  - 2 Egg & Sausage McMuffins
- Lunch:
  - Wendy's Baconator & Chicken Sandwich with Fries
- Supper:
  - 12" Sub & Cookie
- Bedtime Snack:
  - Chips, cookies or ice cream
- Beverages throughout the day:
  - 20 oz of Coffee, <20 oz of Water, 1-3 Diet Sodas & Alcohol 1-2x/week

Cholesterol: 650

Triglycerides: 3994

HDL: 18

LDL: Unable to calculate

BMI: 31.05 kg/(m^2)

UW Health

Example – Lipid Disorder

- **Improved Sample diet:**
- Breakfast:
  - Oatmeal or 2 pc of toast with PB
- Snack:
  - Almonds or 1-2 beef sticks
- Lunch:
  - Sandwich with a lot of carrots
- Supper:
  - Salmon with baked potato + asparagus + salad
- Beverages:
  - 20 oz Coffee and 8, 16 oz water bottles
  - Alcohol once every 2 weeks
    - Scotch on the rocks, 1-2

- **Patient Goals:**
- Consume small, frequent meals (5-6) eaten every 3-4 hours
- Need to keep intake low fat and low carb while triglycerides are elevated
  - Focus on protein at snacks and protein and vegetables at meals
- Leave out the carb for right now or at a minimum keep it to 1/4 of the plate
- Try to switch to having a more protein based breakfast
  - Eggs/veggies in muffin tins
- Afternoon snack: Quest bar or veggies and hummus
- Exercise Goal: Schedule in 3 days/week.

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Example – Metabolic Syndrome

- **Sample Diet**
- Breakfast:
  - Bagel w/cinnamon & sugar & coffee
- Snack:
  - 3 Banana within an hour
- Lunch:
  - Cheerios/Rice Krispies, sandwich, or a burger
- Snack:
  - Sugar-free cookies & Hard candy
- Supper:
  - Sandwich with rice/cabbage or some sort of vegetables or pot roast with potatoes/carrots, salmon/pork chops/chicken with rice & vegetable, or orders pizza (1-2 times per week)
- Snack:
  - 2-3 Mini Kit Kats or Hershey bar most nights
- Beverages:
  - 1 cup of coffee with cream/sugar, easily 64 fl oz of water, 3-4 gallons of milk in a week, no juice, soda a couple times per week, and no alcohol.

Cholesterol: 136
Triglycerides: 143
HDL: 49
LDL: 58
Hemoglobin A1C: 6.3%
BMI: 32.71 kg/(m^2)
Blood Pressure: 154/62

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Example – Metabolic Syndrome

- **Updated Sample Diet**
- Breakfast: Egg Sandwich & coffee
- Snack: 1 Banana & Peanut Butter
- Lunch: Sandwich & raw veggies
- Snack: Fruit + LF String Cheese
- Supper: Salmon/pork chops/chicken with rice & vegetable
- Snack: Optional: Handful of nuts
- Beverages: 1 cup of coffee with cream & less sugar, 64 fl oz of water
  - 1 gallon of milk/week

- **Patient Goals:**
- Consume small, frequent meals (5-6) eaten every 3-4 hours
- Balance meals/snacks by pairing complex carbohydrates with lean protein and/or healthy fats
  - Add protein to breakfast
  - Mid-morning snack: Fruit + Protein
  - Mid-afternoon snack: Fruit + Protein
  - Evening snack: Be mindful of whether this is hunger or habit
- Use the plate diagram to help with portion sizes and balance
  - Lunch: Emphasize veggies and get a side salad when eating out
  - Supper: Continue current balance
- Cut back on intake of milk
- Exercise Goal: Plan in 3 days per week

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Example – HTN

- **Sample Diet**
- Breakfast: skips
  - Running to the bus by 6:45 (lucky if meds are taken)
- Snack:
  - Leftovers eaten over the course of 2 hours (Spaghetti)
- Lunch:
  - Taco bar, Asian salad, or spicy noodle bowl at the cafeteria
- Snack:
  - Not usually. Maybe raw veggie & ranch if time
- Supper:
  - Sloppy Joe's with baked beans & broccoli
- Snack:
  - 16 oz of wine with Taquitos, beef jerky (1/2-1 bag) or Spaghettios
- Beverages:
  - 6 pack of Diet Mt. Dew. Doesn't drink plain water unless sick.
  - 16 oz of wine each night.

Blood Pressure:
140/88, 140/102, 156/88
Cholesterol: 192
Triglycerides: 159
HDL: 66
LDL: 94
BMI: 31.29 kg/(m^2)

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Example – HTN – Patient Goals

- Consume small, frequent meals (5-6) eaten every 3-4 hours
  - Try to eat (almonds or individual pack of jerky, drink a protein shake or bar within an hour of waking
  - Plan in a mid-morning and mid-afternoon snack
- Balance meals/snacks by pairing complex carbohydrates with lean protein and/or healthy fats
  - Mid-morning snack: Veggies & hummus
  - Mid-afternoon snack: Peeled orange with nuts or 1 individual pack of jerky
  - Evening snack: Be mindful of whether or not this hunger or habit
- Use the plate diagram to help with portion sizes and balance
  - Lunch: Emphasize veggies and get a side salad
  - Supper: Portion back on the meat, continue or increase vegetables and be mindful of the carb intake (including wine)
  - Avoid alcohol if possible
- Exercise Goal: Consider getting on the elliptical and shoot for 3 days per week
- Cut back salt, read labels, unsalted snacks if possible

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Example – Diabetes

- **Sample Diet**
- Breakfast:
  - Cheerios with a glass of juice and a banana
- Snack:
  - None-unless having a low blood sugar & then has a glass of juice
- Lunch:
  - Sandwich with chips and fruit or LF yogurt
- Snack: Trying not to snack
- Supper:
  - Spaghetti with garlic bread
  - Pork chops with a baked potato and steamed vegetables
- Bedtime Snack:
  - Pretzels or popcorn
- Beverages:
  - 24 oz of Water, 3 cans of diet soda per day, 20 oz of coffee. Alcohol: 1-2 beers 3-4 nights per week

Hemoglobin A1C: 6.6%
Glucose: 225
Cholesterol: 112
Triglycerides: 166
HDL: 32
LDL: 47
BMI: 34.40 kg/(m^2)

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Example – Diabetes- Patient Goals

- Consume small, frequent meals (5-6) eaten every 3-4 hours
  - Plan in regular mid-day snacks in the AM & PM
- Balance meals/snacks by pairing complex carbohydrates with lean protein and/or healthy fats
  - Pull out some of the carb at breakfast and add protein
    - Peanut butter, eggs, or string cheese
  - Mid-morning Snack around 9:30 on exercise days:
    - Banana + natural peanut butter or Greek yogurt
  - Mid-afternoon snack around 3:00:
    - Fruit + peanuts or Greek yogurt
- Use the plate diagram to help with portion sizes and balance
  - Lunch: Get consistent with having a side salad or adding veggies
  - Supper: Continue to model the plate diagram and fine tune it
  - If wanting dessert, plan it into your meal as your carb for the meal
- Continue with your water drinking and try to continue avoiding soda.
- Exercise Goal: Continue current exercise routine

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