

Medical Nutrition Therapy Diet: Therapeutic Lifestyle Changes Diet

1. Purpose

a. Nutrition Indicators

- determine lipoprotein levels – obtain a complete lipoprotein profile after a 9-12 hour fast
- high cholesterol, high LDL

b. Criteria to Assign the Diet

- Criteria to assign the diet is to assign it to someone who needs to reduce their risk for heart disease, cholesterol, and LDL level
- Identify presence of clinical atherosclerotic disease that confers high risk for CHD events:
 - Clinical CHD
 - Symptomatic carotid artery disease
 - Peripheral arterial disease
 - Abdominal aortic aneurysm
- Determine presence of major risk factors:
 - Smoking
 - Hypertension
 - Low HDL cholesterol
 - Family history of premature CHD
 - Age: men 45+ women 55+
- LDL levels at which to initiate the TLC diet
 - $\geq 100\text{mg/dl}$ for people with CHD or CHD risk equivalents
 - $\geq 130\text{ mg/dl}$ for people with 2 or more risk factors
 - $\geq 160\text{ mg/dl}$ for people with 0-1 risk factor
- Medical Conditions that indicate a need for TLC
 - Coronary heart disease
 - Other cardiovascular diseases
 - Diabetes Mellitus
 - Insulin resistance
 - Metabolic Syndrome

c. Rationale for Diet

- The TLC diet can lower a persons LDL level, stop or reverse the build-up of plaque. It can also lower the cholesterol content in unstable plaques.
- TLC diet is used for the prevention of atherosclerosis
- In people who have already had myocardial infarction, the diet can reduce the risk of another heart attack and possibly prolong their life.

2. Population

a. Overview

- Use of the TLC diet is typically by adults who are at risk or who have cardiovascular disease.

b. Disease Process

- The TLC diet is used for individuals with risk factors for coronary artery disease and metabolic syndrome specifically. There are risk factors that contribute to the disease process including high blood pressure, high LDL cholesterol and being overweight.

c. Biochemical and Nutrient Needs

- Individuals with these diseases need to consume enough calories to be healthy, but must lower saturated fat intake, cholesterol and sodium to help treat the problems associated with diabetes, high LDL cholesterol and being overweight.

3. General Guidelines

a. Nutrition Rx

- Less than 7% of total calories from saturated fat
- 25-35% or less of total calories from fat
- Less than 200 milligrams of dietary cholesterol per day
- Limit sodium intake to 2400 mg/day
- Just enough calories to achieve or maintain a healthy weight and reduce blood cholesterol level
- Add plant stanols and sterols
- Increase consumption of soluble fiber

b. Adequacy of Nutrition Rx

- The Nutrition Rx provides adequate calories and nutrients. It focuses on reducing intake of nutrients that are not beneficial for a healthy lifestyle like cholesterol, fat, saturated fat, and sodium.
- There is a lot of opportunity for variety in the foods eaten on this diet

c. Goals

- Treating high cholesterol
- Lower LDL
- Lose weight to reduce risk of developing heart disease

d. Does it Meet DRI

- The TLC diet meets DRI because the amount of calories consumed is not drastically changed. The changes are made in what type of calories are consumed and lowers the fat, cholesterol, saturated fat and sodium in an individual's diet.

4. Education Material

a. Nutrition Therapy

- Your Guide to Lowering Your Cholesterol With TLC
- Lists of appropriate foods
- Food label reading exercises

- Sample menus
- Recipe books
- b. Ideas for Compliance
 - Food Journal
 - Scheduled visits to monitor progress
 - Get the whole family involved
 - Make sure they keep variety in their diet

5. Sample Menu

- a. Foods Recommended
 - Lean meat, poultry, fish, dry beans, and dry peas
 - Eggs (but no more than 2 yolks a week)
 - Low fat milk products
 - Fruit
 - Vegetables
 - Whole grains, pasta, rice
 - monounsaturated oils or polyunsaturated oils
- b. Foods to Avoid
 - Egg yolks
 - Ice cream
 - Fried Foods
 - Organ meat
 - Fast food
 - Full-fat cheeses
 - Snacks with saturated fat or hydrogenated oils
- c. Example of a meal plan

Breakfast

Oatmeal (1 cup)
 Fat-free milk (1 cup)
 Raisins (1/4 cup)
 English muffin (1 medium)
 Soft margarine (2 tsp)
 Jelly (1 Tbsp)
 Honeydew melon (1 cup)
 Orange juice, calcium fortified
 (1 cup)
 Coffee (1 cup) with fat-free
 milk (2 Tbsp)

Lunch

Roast beef sandwich
 Whole-wheat bun (1 medium)
 Roast beef, lean (2 oz)
 Swiss cheese, low fat (1 oz slice)
 Romaine lettuce (2 leaves)
 Tomato (2 medium slices)

Mustard (2 tsp)
Pasta salad (1 cup)
Pasta noodles (3/4 cup)
Mixed vegetables (1/4 cup)
Olive oil (2 tsp)
Apple (1 medium)
Iced tea, unsweetened (1 cup)

Dinner

Orange roughy (3 oz) cooked with
olive oil (2 tsp)
Parmesan cheese (1 Tbsp)
Rice* (1 1/2 cup)
Corn kernels (1/2 cup)
Soft margarine (1 tsp)
Broccoli (1/2 cup)
Soft margarine (1 tsp)
Roll (1 small)
Soft margarine (1 tsp)
Strawberries (1 cup) topped with
low-fat frozen yogurt (1/2 cup)
Fat-free milk (1 cup)

Snack

Popcorn (2 cups) cooked with
canola oil (1 Tbsp)
Peaches, canned in water (1 cup)
Water (1 cup)

Calories: 2,523
Cholesterol (mg): 139
Fiber (g): 32
Soluble Fiber (g): 10
Sodium (mg): 1,800
Carbohydrates: 57% calories
% calories from fat: 28
% saturated fat calories: 6
% calories from Protein: 17

6. Websites

- a. Organizations with Websites
 - American Heart Association
 - National Heart Lung and Blood Institute
- b. Government Websites
 - The United States Department of Agriculture
 - Nutrition.gov

7. References

- a. Journal articles references

Bamfo, R., & Jamerson, K. (2008). Therapeutic Lifestyle Changes Diet vs Atkins Diet for Efficacy of Cholesterol Lowering. *Ethnicity and Disease Journal*, 18.
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