

**WHAT IS NASH?**

NASH, or non-alcoholic steatohepatitis, is liver inflammation and damage caused by the buildup of fat in the liver. This results in a liver that does not function properly. If left untreated, NASH can get worse over time and cause scarring or cirrhosis of the liver – a serious condition in which the liver is permanently damaged.

**WHAT CAUSES NASH?**

Experts do not know what causes NASH. It could be due to environmental triggers that lead to inflammation of the liver, or it may be hereditary. People are at higher risk for NASH or liver damage if they suffer from:

- Obesity
- Insulin resistance or type 2 diabetes
- High cholesterol and high triglycerides
- Metabolic syndrome

**WHAT ARE THE SYMPTOMS OF NASH?**

NASH usually shows very few or no symptoms early on. As the disease progresses, symptoms may include:

- Fatigue
- Weight Loss
- Weakness
- Abdominal Pain
- Loss of Appetite

**HOW IS NASH TREATED?**

Although there is no cure for NASH, there are ways to help limit further damage to your liver. Follow these dietary and lifestyle recommendations to minimize NASH conditions:

- Decrease total cholesterol and LDL cholesterol
- Maintain a healthy body weight; reach ideal Body Mass Index (BMI)
- Follow a balanced and healthy diet
- Control diabetes
- Decrease alcohol intake
- Begin or maintain an adequate exercise program (always discuss appropriate exercise with your physician prior to beginning an exercise program)

**HELPFUL GUIDES**

- AGA's "Low-Fat, Low-Cholesterol, Low-Sodium" diet sheet for food and meal recommendations
- AGA's "Low Sodium Guidelines" for tips on tracking and lowering your sodium intake

Astonishingly, about 60% of the foods and beverages purchased in American grocery stores contain added sugar.\* It's in items from cakes to crackers, from sauces to soups. That's why it's so important to read labels on foods and avoid this sugar "trap." Sugar may be listed as dextrose, sucrose, glucose, fructose, or one of its more than 50 other names!

Another highly refined sweetener found in many packaged foods and sweet beverages is high fructose corn syrup (HFCS). HFCS is a liquid sweetener derived from corn starch commonly used in manufacturing.

Look out for these health dangers of HFCS:

- Significant risk of weight gain and obesity
- Long-term damage to liver
- Increased blood pressure and elevated "bad" cholesterol (LDL cholesterol)
- Increased risk of developing Type 2 diabetes

While high fructose corn syrup is labeled on most food packaging in the USA, look out for these alternative names:

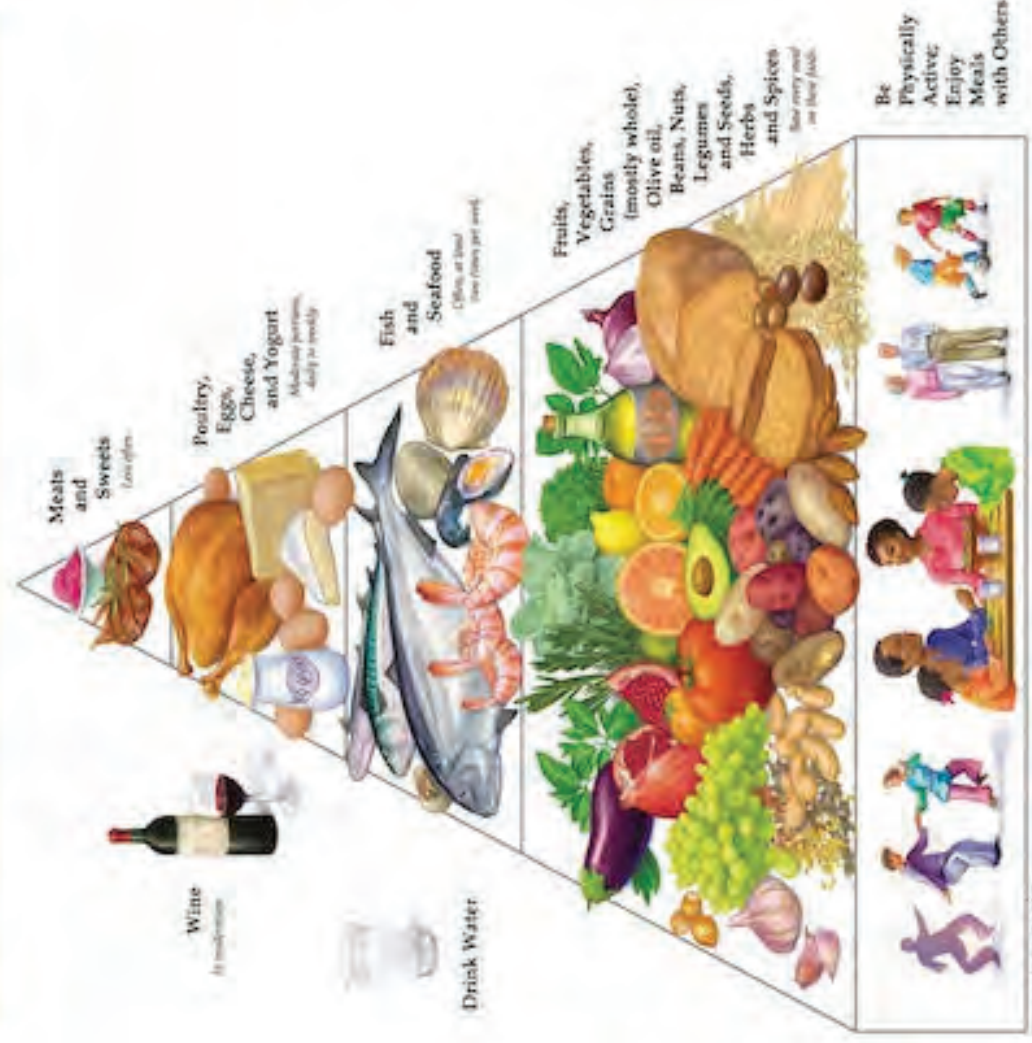
- |                        |                          |
|------------------------|--------------------------|
| • "HFCS"               | • Glucose/fructose syrup |
| • Crystalline fructose | • Isoglucose             |
| • Fructose             | • Maize syrup            |
| • Fruit fructose       | • Pole corn juice        |
| • Glucose syrup        | • Tapioca syrup          |

#### **FIVE WAYS TO AVOID HFCS**

- **Avoid fast foods.** Many items contain HFCS, and not just the sweet items.
- **Read the food label.** HFCS, or an alternative name for it, will be clearly listed.
- **Buy organic when possible.** It is unlikely that any 100% organic foods would contain HFCS which is a highly processed sweetener.
- **Avoid canned or bottled beverages.** Not just the soda, but almost every sweet beverage contains HFCS.
- **Eat Clean, Eat Fresh.** Consume fresh, unrefined, and unprocessed foods.



# THE MEDITERRANEAN DIET PYRAMID



The Mediterranean diet pyramid was developed based on the eating habits of long-living adults in the Mediterranean. It follows a general food pyramid guideline (not specific quantities) and encourages communal eating and an active lifestyle.

It is associated with:

- Reduced risk of memory problems and dementia<sup>1</sup>
- Reduced risk of stroke, diabetes, and other vascular diseases<sup>2</sup>

## Base every meal around:

- Vegetables and fruits (the darker in color, the more anti-oxidants!)
- Legumes/beans, whole grains, nuts (e.g., lentils, walnuts)
- Olive oil as principal source of fat (swap out margarine and butter!)

## Eat at least 2x/week:

- Fish, seafood

## Eat moderate portions daily to weekly:

- Poultry
- Dairy, cheese and eggs
- Red wine (typically with meals)
  - Females: 1 glass/day
  - Males: 2 glasses/day

## Eat less often than other foods:

- Red meat
- Saturated fat
- Sweets

1. Fiebert, Catherine, et al. "Adherence to a Mediterranean diet, cognitive decline, and risk of dementia." *JAMA* 302.6 (2009): 638-646.

2. Psaltopoulou, Theodora, et al. "Mediterranean diet, stroke, cognitive impairment, and depression: a meta-analysis." *Annals of Neurology* 74.4 (2013): 580-591. "Mediterranean-style diets linked to better brain function in older adults" [www.sciencedaily.com/releases/2017/07/170725154208.htm](http://www.sciencedaily.com/releases/2017/07/170725154208.htm). UNESCO Intangible Cultural Heritage "Mediterranean Diet" [ich.unesco.org/en/RU/mediterranean-diet-00954](http://ich.unesco.org/en/RU/mediterranean-diet-00954).

Increased levels of fat and cholesterol in the blood can build up on the walls of your arteries and are associated with an increased risk for heart disease. Eating foods that are low in trans fat and saturated fat may help reduce or control your cardiac risk factors. Eating less sodium has been found to benefit some people with high blood pressure and swelling. The American Heart Association recommends consuming less than 2,300 mg (~1 teaspoon) of salt or sodium per day. Lowering your simple sugar intake will help control blood sugar fluctuations and help reduce overall inflammation.

By reducing your fat, sugar, and sodium intake, you can:

- Decrease your risk of developing heart disease.
- Achieve and maintain a healthy body weight.
- Decrease your risk of developing cancer, diabetes, and high blood pressure.
- Reduce the risk of swelling in your limbs caused by fluid build-up.
- Control blood sugar fluctuations.

FOOD GROUP	ALLOWED	RESTRICTED
<b>MILK &amp; DAIRY PRODUCTS</b>	Skim, ½%, 1%, 2%, cashew, almond, oat, or soy milk Evaporated or powdered skim milk Low-fat, low-sodium buttermilk Low-fat Lactaid® 1% or 2% milk 1% or 2% chocolate milk Low-fat or Greek yogurt Low-fat cheese Low-fat cottage cheese Low-fat cream cheese Low-fat sour cream Fairlife Milk Good Culture Cottage Cheese Cabot Brand Best Self Greek Yogurt	Whole milk Whole Chocolate milk Evaporated whole milk Condensed milk Instant milk mixes Eggnog Cream, half and half Regular hard cheese such as Cheddar, Monterey Jack, Swiss, Colby, etc. Whole-milk Mozzarella 4% fat cottage cheese Sour cream Ice cream
<b>MEAT AND BEANS</b>	Chicken breast (skinless) Turkey breast (skinless) Ground turkey breast (skinless) Broiled/baked fish: flounder, cod, halibut, salmon, tuna Boar's Head/Applegate Farms (deli meat) Pork tenderloin, lean red meat Eggs Dried beans and peas prepared with little or no fat Vegetarian: tofu, seitan Epic Bar	Fatty cuts of meats such as prime rib, T-bone steak, pot roast, NY strip steak, regular ground beef, pork spare ribs, bacon, sausage, regular luncheon meats, chicken wings, chicken or turkey skin Fried chicken, fried fish or seafood Duck, goose Chitterlings Dried beans and peas prepared with animal fat or fatty meats
<b>GRAINS AND STARCHES</b>	Whole-grain or Ezekiel bread/sprouted whole grain Whole-grain English muffin or bagel Oatmeal Whole-wheat, low-sugar breakfast cereals (shredded wheat, Uncle Sam's®) Whole-wheat pancakes or waffles Brown rice cakes, Nut-Thins® crackers Melba toast/Flaxers crackers Unsalted pretzels Air-popped popcorn Barley, millet, quinoa Brown rice, black rice, wild rice Whole-wheat pasta noodles Legumes Corn	Sweet rolls, danish, doughnuts, croissants, biscuits, muffins Pasta/rice prepared with butter, cream, cheese sauce Salted crackers, pretzels, popcorn Dry cereal (>3gm fat) Regular buttery crackers (Ritz® or Townhouse®) Self-rising flour Baking soda, baking powder Instant cooked cereals Instant mixes Quick breads

FOOD GROUP	ALLOWED	RESTRICTED
VEGETABLES	Fresh, frozen, or low sodium canned vegetables	Vegetables prepared with butter, lard, bacon grease, fat back, streak o'lean, ham hock, cream, cheese sauce
FRUIT	All fruits (fresh, canned in water) Avoid juice and dried fruit	Fried fruits (i.e., plantains) Fruits prepared in butter or cream Fruit pies
FATS	Butter – small amounts Low-fat or light olive oil spread Cooking oil (olive or avocado) Reduced-fat mayonnaise Low-fat salad dressing – (e.g., vinaigrette) Unsalted nuts or seeds Avocado Natural nut butters	Salted stick butter or margarine Regular salad dressing Bacon fat, salt pork, lard, fat back, shortening, streak o'lean, ham hock, chitterlings Regular sour cream Regular gravy (packaged or canned) Dips made with cheese, bacon Olives, salted nuts or seeds

Dietary fiber is the part of a plant that provides and maintains the plant's structure. Cellulose, hemicellulose, polysaccharides, pectins, gums, mucilages and lignins are dietary fibers. These fibers are unrelated chemically; however, they all have one thing in common - they can't be digested by the human body. For this reason, they can help correct disorders of the large intestine (colon) and keep it functioning normally. Therefore, it is important to increase the amount of fiber in the diet.

**Purpose**

Fiber (also called roughage or bulk) promotes the wavelike contractions that keep food moving through the intestine. Also, high-fiber foods expand the inside walls of the colon. This eases the passage of waste. Fibrous substances pass through the intestine undigested. They also absorb many times their weight in water, resulting in softer, bulkier stools.

A high-fiber diet causes a large, soft, bulky stool that passes through the bowel easily and quickly. Because of this action, some digestive tract disorders may be avoided, halted, or even reversed simply by following a high-fiber diet. A softer, larger stool helps prevent constipation and straining. This can help avoid or relieve hemorrhoids. More bulk means less pressure in the colon, which is important in the treatment of irritable bowel syndrome and diverticulosis (defects in the weakened walls of the colon). In addition, fiber appears to be important in treating diabetes, elevated cholesterol, colon polyps, and cancer of the colon.

**General Rules**

- Drink plenty of liquids; water is always best!
- Drink at least six cups of water or fluid a day.
- Eat slowly and chew your food thoroughly. This may help prevent gas from developing in the lower digestive tract.
- Eat your meals at regular intervals.
- Add high-fiber foods to each meal.

**High-Fiber Foods Include**

- Whole-grain foods, such as whole grain cereals, whole grain breads, quinoa, barley, and brown rice
- Fresh fruits including the skin and pulp
- Dried or stewed fruits, such as prunes, raisins, or apricots
- Vegetables, such as kale, broccoli, and turnip greens
- Legumes, such as peas, lentils, and beans

Our high fiber foods list for a high fiber diet is vitally important to your health and well being. The healthy food high in fiber on this list of high fiber foods makes it easy for you to increase the high fiber food in your diet. Most Americans eat a low fiber diet instead of a high fiber diet. The average is not nearly enough – only about 10 to 13 grams of fiber a day. For great health, you need 30+ daily grams from fiber rich foods, plus half your body weight in ounces of water each day.

The high fiber foods list with fiber content below can help reduce your risk of constipation, diverticulosis, hemorrhoids, high cholesterol, high blood sugar, obesity, colon cancer, diabetes and heart disease. To look and feel your best, choose wisely from our healthy high fiber foods list and eat a high fiber diet of the healthiest fiber rich foods.

### HIGH FIBER FOODS LIST with TOTAL FIBER GRAMS (g)

Fresh & Dried Fruit	Serving Size	Fiber (g)
Apples with skin	1 medium	5.0
Apricot	1 medium	1.0
Apricot, dried	4 pieces	2.9
Banana	1 medium	3.9
Blueberries	1 cup	4.2
Cantaloupe, cubes	1 cup	1.3
Figs, dried	2 medium	3.7
Grapefruit	1/2 medium	3.1
Orange, navel	1 medium	3.4
Peach	1 medium	2.0
Peaches, dried	3 pieces	3.2
Pear	1 medium	5.1
Plum	1 medium	1.1
Raisins	1 5 oz. box	1.6
Raspberries	1 cup	6.4
Strawberries	1 cup	4.4

Vegetables	Serving Size	Fiber (g)
Avocado (fruit)	1 medium	11.8
Beets, cooked	1 cup	2.8
Beet greens	1 cup	4.2
Bok choy, cooked	1 cup	2.8
Broccoli, cooked	1 cup	4.5
Brussels sprouts, cooked	1 cup	3.6
Cabbage, cooked	1 cup	4.2
Carrot	1 medium	2.6
Carrot, cooked	1 cup	5.2
Cauliflower, cooked	1 cup	3.4
Cole slaw	1 cup	4.0
Collard greens, cooked	1 cup	2.6
Corn, sweet	1 cup	4.6
Green beans	1 cup	4.0
Celery	1 stalk	1.1
Kale, cooked	1 cup	7.2

Vegetables, Continued	Serving Size	Fiber (g)
Onions, raw	1 cup	2.9
Peas, cooked	1 cup	8.8
Peppers, sweet	1 cup	2.6
Popcorn, air-popped	3 cups	3.6
Potato, baked with skin	1 medium	4.8
Spinach, cooked	1 cup	4.3
Summer squash, cooked	1 cup	2.5
Sweet potato, cooked	1 medium	4.9
Swiss chard, cooked	1 cup	3.7
Tomato	1 medium	1.0
Winter squash, cooked	1 cup	6.2
Zucchini, cooked	1 cup	2.6

Grains, Beans, Nuts & Seeds	Serving Size	Fiber (g)
Almonds	1 oz	4.2
Black beans, cooked	1 cup	13.9
Bran cereal	1 cup	19.9
Bread, whole wheat	1 slice	2.0
Brown rice, dry	1 cup	7.9
Cashews	1 oz	1.0
Flax seeds	3 Tbsp	6.9
Garbanzo beans, cooked	1 cup	5.8
Kidney beans, cooked	1 cup	11.5
Lentils, red cooked	1 cup	13.6
Lima beans, cooked	1 cup	8.6
Oats, rolled dry	1 cup	12.0
Quinoa (seeds) dry	1/4 cup	6.2
Quinoa, cooked	1 cup	8.4
Pasta, whole wheat	1 cup	6.3
Peanuts	1 oz	2.3
Pistachio nuts	1 oz	3.1
Pumpkin seeds	1/4 cup	4.1
Soybeans, cooked	1 cup	8.6
Sunflower seeds	1/4 cup	3.0
Walnuts	1 oz	3.1



**Day 1**

Breakfast	Lunch	Dinner	Snack
1 C cantaloupe cubes 2 poached eggs 1 slice Ezekiel toast + 1/4 avocado Calorie-free beverage of choice	Protein bowl 4 oz. grilled chicken 1 C brown rice 1 C mixed grilled vegetables 1 large apple Calorie-free beverage of choice	5 oz broiled or grilled boneless chicken breast 5" baked sweet potato, topped with 1 tsp butter Salad: 2 C tossed field greens, topped with 2 Tbsp pumpkin seeds, 3 chopped green olives, and 1/4 C grated carrots, and 1/4 C sun-dried tomatoes, drizzled with 2 Tbsp lite vinaigrette dressing Calorie-free beverage of choice	8 oz low-fat yogurt, favorite flavor, topped with 1 Tbsp flax meal Calorie-free beverage of choice

**Day 2**

Breakfast	Lunch	Dinner	Snack
Scrambled eggs: 2 eggs with 1 Tbsp shredded cheddar cheese and 1/2 C spinach prepared using cooking spray 1 slice Ezekiel toast with 1 tsp butter	Turkey wrap (low carb) 1 wheat wrap with 3 slices roasted turkey breast (1 oz each), 1 oz slice low-fat Swiss cheese, 2 lettuce leaves, 2 slices medium tomato and 2 tsp deli mustard, lite mayo 1 serving baked tortilla chips Calorie-free beverage of choice	5 oz grilled salmon 1 C seasoned brown rice, prepared with 1 tsp olive oil 1 C cooked summer squash, topped with 1 tsp butter Calorie-free beverage of choice	1 banana 2 tsp peanut butter Calorie-free beverage of choice

**Day 3**

Breakfast	Lunch	Dinner	Snack
1 C cooked oatmeal with 2 Tbsp slivered almonds and 1/2 C fresh, sliced strawberries 6 fl oz milk of choice and/or consumed as a beverage Calorie-free beverage of choice 2 low-fat turkey sausage links	Pasta salad: 1 1/2 C cooked enriched pasta (cooled), tossed with 2 diced plum tomatoes, 5 large sliced mushrooms, 1/2 C chopped red or yellow bell peppers, 2 Tbsp chopped, fresh scallions, 3 sliced jumbo black olives, 2 oz crumbled soft goat cheese and 2 Tbsp lite vinaigrette 1 C canned pineapple chunks, drained, no added sugar Calorie-free beverage of choice 3 oz. grilled chicken	Burger: 1 lean burger (open faced) 8 new potatoes Spinach salad: 1 1/2 C baby spinach, tossed with 1/2 C fresh mandarin orange slices, drizzled with 1 Tbsp lite chunky blue cheese dressing Calorie-free beverage of choice	3/4 oz or about 20 large dry roasted, unsalted peanuts Calorie-free beverage of choice 1 pear

## Day 4

Breakfast	Lunch	Dinner	Snack
<p>1 1/4 C Kashi (high protein) dry cereal, topped with 2 Tbsp chopped walnuts and 1/2 C fresh blueberries</p> <p>8 fl oz milk of choice</p> <p>Calorie-free beverage of choice</p> <p>2 slices of turkey bacon</p>	<p>1 small (4") wheat pita bread or low carb wrap, served with 1/3 C hummus</p> <p>3 oz. sliced turkey</p> <p>Shredded vegetables</p> <p>1 Tbsp lite dressing</p> <p>1 medium peach</p> <p>Calorie-free beverage of choice</p>	<p>5 oz center cut pork chop, broiled or grilled</p> <p>1/2 C cooked black beans, seasoned to taste</p> <p>1/2 C brown rice</p> <p>1 C cooked, drained turnip greens, topped with 1 Tbsp olive oil</p> <p>Calorie-free beverage of choice</p>	<p>2 tsp peanut butter or</p> <p>2 brown rice cakes</p>

## Day 5

Breakfast	Lunch	Dinner	Snack
<p>1 C oatmeal (cooked in 8 fl oz milk), topped with 2 Tbsp golden, seedless raisins and 2 Tbsp chopped pecans</p> <p>2 large hard boiled eggs, seasoned as desired</p> <p>Calorie-free beverage of choice</p>	<p>Tuna salad:</p> <p>mix 4 oz water packed tuna with 2 Tbsp chopped white onion, 1 Tbsp light mayonnaise, and 1 Tbsp Dijon mustard; arrange 1 C shredded lettuce and 3 slices medium tomato on plate; top with tuna mixture</p> <p>1 medium apple</p> <p>Calorie-free beverage of choice</p>	<p>8 large shrimp, grilled</p> <p>1 C steamed broccoli florets, topped with 1 tsp butter</p> <p>1 C wild rice, prepared with 1 Tbsp olive oil</p> <p>Calorie-free beverage of choice</p>	<p>8 large baby carrots, served with 2 Tbsp lite ranch dressing for dipping</p> <p>1 low-fat cheese stick</p>



**Day 1**
**Breakfast**
**Lunch**
**Dinner**
**Snack**
**Day 2**
**Breakfast**
**Lunch**
**Dinner**
**Snack**
**Day 3**
**Breakfast**
**Lunch**
**Dinner**
**Snack**



## Day 4

Breakfast

Lunch

Dinner

Snack

## Day 5

Breakfast

Lunch

Dinner

Snack

