

# Lifestyle Intervention Program

## Protein



# Role of Protein

- Proteins are the building blocks of life
- Every cell in the body contains protein
- Needed to repair cells and make new cells
- Source of energy
- Aid in producing hormones and enzymes
- Maintaining fluid balance
- Transporting oxygen

# Amino Acids

- Protein is broken into amino acids during digestion. The human body needs a number of amino acids in large enough amounts to maintain good health
- 20(22) amino acids that make up proteins. 9 are considered essential
- Amino acids are classified into 2 main groups:
  - Essential
  - Nonessential

# Essential

- **Essential amino acids** cannot be made by the body, and must be supplied by food. They do not need to be eaten at one meal. The balance over the whole day is more important.

# Non-essential

- **Nonessential amino acids** are made by the body from essential amino acids or in the normal breakdown of proteins.

# How much protein

- The National Academy of Medicine recommends that adults get a minimum of 0.8 grams of protein for every kilogram of body weight per day, or **just over 7 grams for every 20 pounds of body weight.**
- For a 140-pound person, that means about 50 grams of protein each day.
- For a 200-pound person, that means about 70 grams of protein each day.

# Consider the Package

- What is the entire package of the food being consumed?
- Not all protein packages are created equal. Because foods contain a lot more than protein, it's important to pay attention to what else is coming with it.

What are some high protein sources  
that come with a good overall  
package of nutrients?

# *Get more protein from plants*

- Eating legumes (beans and peas), nuts, seeds, whole grains, and other plant-based sources of protein is a win for your health. Eat a variety of sources.

Examples:

- **Legumes:** lentils, beans (adzuki, black, fava, chickpeas/garbanzo, kidney, lima, mung, pinto etc.), peas (green, snow, snap, split, etc.), edamame/soybeans (and products made from soy: tofu, tempeh, etc.), peanuts.
- **Nuts and Seeds:** almonds, pistachios, cashews, walnuts, hazelnuts, pecans, hemp seeds, squash and pumpkin seeds, sunflower seeds, flax seeds, sesame seeds, chia seeds.
- **Whole Grains:** kamut, teff, wheat, quinoa, brown rice, wild rice, millet, oats, buckwheat.
- **Other:** Some examples with higher protein quantities include corn, broccoli, asparagus, sprouts, and artichokes.



# High Protein Sources

- Beans, peas and lentils, eggs, fat-free or 1% low-fat dairy products, lean meats and poultry, seafood, soy based foods(edamame, tempeh, tofu), and unsalted nuts and seeds.
  - Choose plant sources and seafood in place of all or most meats and poultry.
  - Add beans/peas/lentils to salads, soups, and side dishes—or serve them as a main dish.
  - Substitute fat-free or 1% low-fat dairy products with fortified plant-based beverages (such as soy, rice, and almond) for whole and 2% reduced-fat dairy products.

# The Protein Flip

- For those not interested in cutting animal-based food completely:
  - Meat and Dairy as “condiment”, not main staple of the meal
  - Reduce meat portion to 1-2 oz
  - Utilize legumes, nuts, and seeds for satiety
- If controlling these portions is difficult for you, may find it easier to just eliminate animal based foods

# Complete Proteins

- Complete -Contain all twenty-plus types of amino acids needed to make new protein in the body.
- Animal-based foods (meat, poultry, fish, eggs, and dairy foods) tend to be sources of complete protein.
- Plant-based foods (fruits, vegetables, grains, nuts, and seeds) often lack one or more essential amino acid.
- Eat variety.
- Some examples of complete plant proteins are quinoa and chia seeds.

# Approximate protein amounts

## Plant Protein

- 1 cup black beans 15 gm
- 1 cup lentils 17 gm
- ½ cup tofu 20 gm
- 1 cup quinoa 8 gm
- 2 Tbsp peanut butter 8 gm
- 1 cup soy milk 7 gm
- 1 cup broccoli 5 gm
- 1 slice wheat bread 3 gm

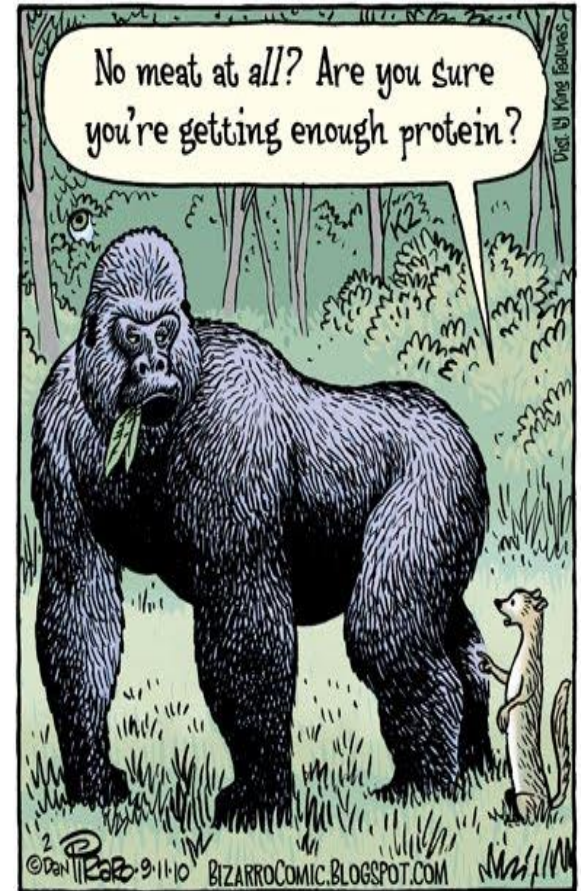
## Animal Protein

- 2 oz. meat 14 gm
- 1 cup milk 8 gm
- 2 oz. Cheese 14 gm
- 1 egg 7 gm



# The Protein Myth

- Plants are not complete proteins.
- I won't be able to get enough protein from plants.



We've never treated a single patient with protein deficiency; yet the majority of patients we see are suffering from heart disease, diabetes, and other chronic illnesses directly resulting from trying to get enough protein.””

– *Dr. Alana Pulde and Dr. Matthew Lederman*

# Protecting Your Bones

- Eat your GREENS and BEANS
- Add nuts to your diet, especially almonds
- Calcium fortified plant based milks
- Tofu
- Canned salmon with bones
- Exercise
- Don't smoke
- Limit sodium
- If eating dairy, choose low-fat versions
- Vitamin D optimizes the absorption of calcium

# B12

- RDA for Vitamin B12: 2.4 mcg
- Older individuals, those with gastrointestinal disorders, and strict vegans are more likely to be deficient. Speak to your doctor about supplementation.
- Look for foods fortified with B12 such as cereal and soy milk. Also found in nutritional yeast.



# Iron

NIH: “People in the United States usually obtain adequate amounts of iron from their diets, but infants, young children, teenaged girls, pregnant women, and premenopausal women are at risk of obtaining insufficient amounts.”

## High Sources:

- Fortified breakfast cereals
  - Shellfish
  - Spinach
  - Artichokes
  - Game meat
  - Beans
  - Lentils
  - Swiss chard
  - Cooked, canned or sun-dried tomatoes
- Role of Vitamin C (Ascorbic Acid):
    - Powerful enhancer of nonheme (type in plants) iron absorption
  - Speak to your physician if you have concerns

# Meal examples with high plant protein

- Scrambled Tofu
- Chickpea Avocado Toast
- Spinach Lentil Salad
- Cauliflower Steak with Lentils
- Red Lentil Soup
- Falafel
- Black Bean Lime Dip
- Sesame Tofu with Broccoli
- Chickpea Wraps



-Carla R.



-Wade and Colleen

# Recap: Action steps you can take now!

- Perform the Protein Flip with one of your regular meals.
- Replace animal protein in one of your regular meals with plant-based source.
- Try a new meal centered around lentils, tofu, tempeh, or beans.