

Peripheral Neuropathy and Lifestyle

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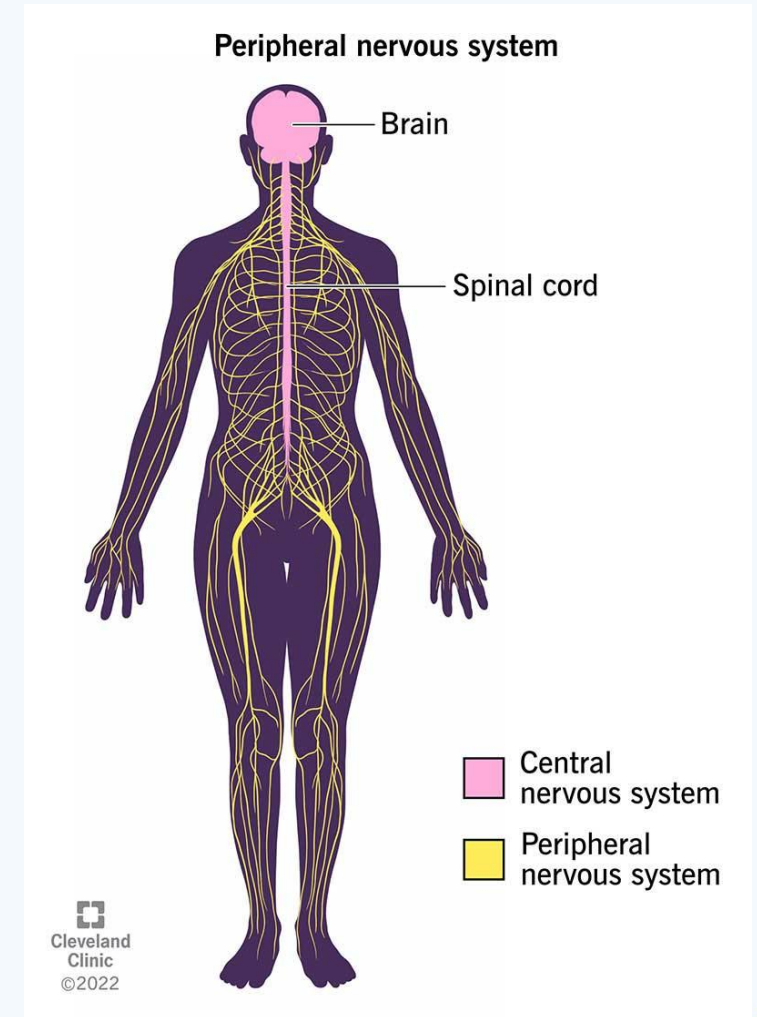
Topics Covered

- *Peripheral Neuropathy*
- *Signs and Symptoms*
- *Diet*
- *Physical Activity*
- *Other lifestyle changes*



Peripheral Neuropathy

- *Damage to peripheral nervous system vast communication network that sends signals between the central nervous system (the brain and spinal cord) and all other parts of the body.*
 - ✓ Feet are cold
 - ✓ Muscles to contract (movement)
 - ✓ Control heart and blood vessels, digestion, urination, sexual function, bones and immune system
 - ✓ At least 20+ millions people are affected in the US



Ways Nerve Signaling Disruption

- Loss of signals normally sent (like a broken wire)
- Inappropriate signaling when there shouldn't be any (like static on a telephone line)
- Errors that distort the messages being sent (like a wavy television picture)



Causes of Peripheral Neuropathy

Physical Injury

Diabetes

Nutritional/Vitamin
Deficiencies

Cancers/Tumors

Vascular/Blood
Problem

Autoimmune
Disease

Chemotherapy

Infection

Hormonal
Imbalances

Kidney/Liver
Disorders



Fight Inflammation

- ✓ Eat to beat inflammation!
- ✓ Manage your weight!
- ✓ Get Moving!
- ✓ Get enough sleep!
- ✓ Stop smoking!
- ✓ Limit alcohol use!
- ✓ Conquer chronic stress!

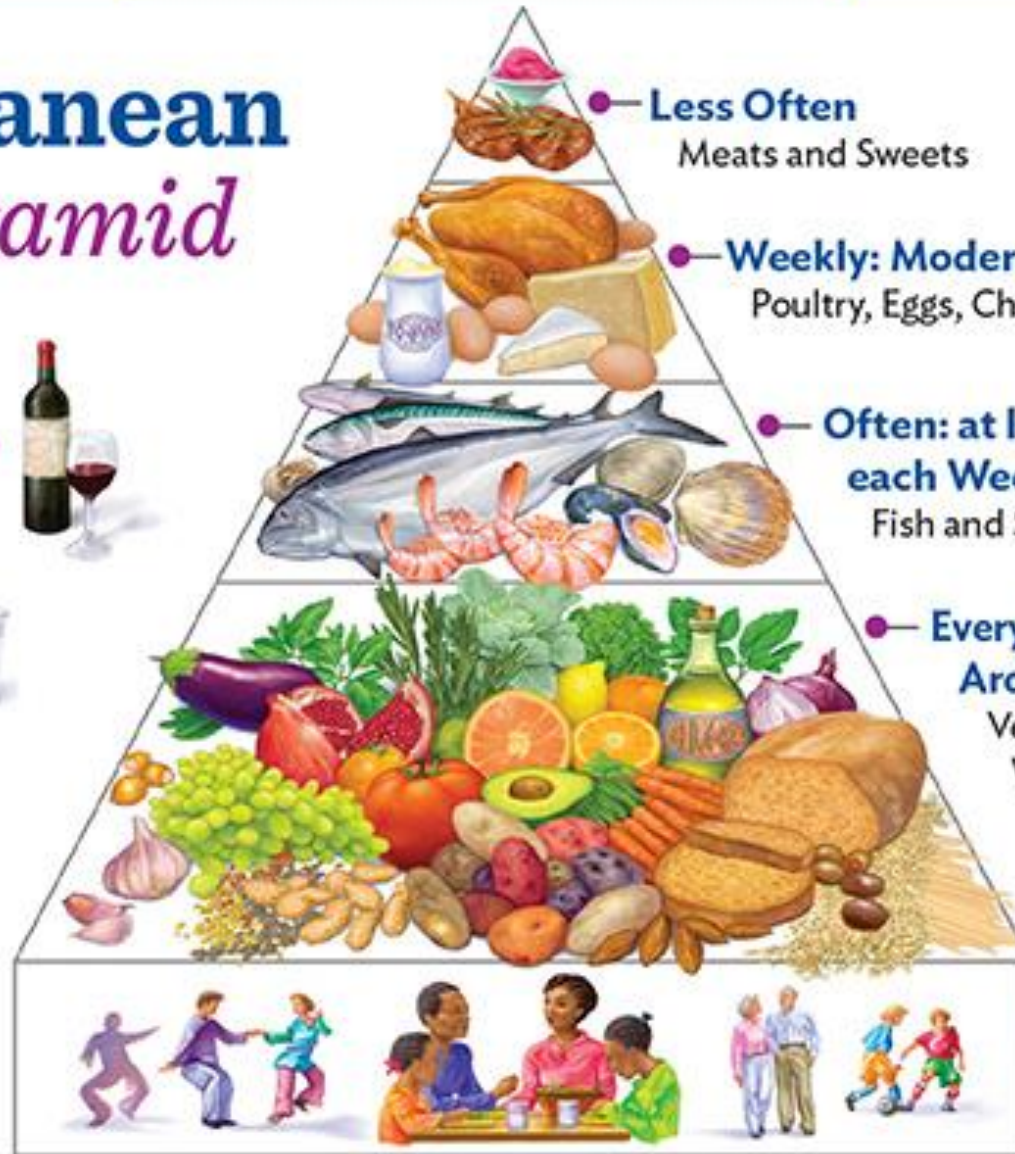
Eat to beat inflammation

Mediterranean Diet Pyramid

In Moderation
Wine



Every Day
Water



Less Often
Meats and Sweets

Weekly: Moderate Portions
Poultry, Eggs, Cheese and Yogurt

Often: at least Twice
each Week
Fish and Seafood

Every Day: Base Each Meal
Around these Foods
Vegetables, Fruits, Whole
Wheat Grains, Olive Oil,
Beans, Nuts, Legumes
and Seeds, Herbs
and Spices

Every Day
Be Physically Active;
Enjoy Meals with
Others

Illustration by George Midlmore

FOODS THAT FIGHT INFLAMMATION

Chronic inflammation has been linked to cancer, heart disease, diabetes, arthritis, depression, and Alzheimer's. Fight inflammation with a healthy diet.



ANTI-INFLAMMATION FOODS



Tomatoes



Fruits

Strawberries, blueberries, oranges and cherries.



Nuts

Almonds, walnuts, and other nuts.



Olive oil



Leafy greens

Spinach, kale, collards, and more.



Fatty fish

Salmon, mackerel, tuna, and sardines.

INFLAMMATION FOODS



Fried foods



Sodas



Refined carbs



Lard



Processed meats

Gluten: A Benefit or Harm to the Body?

- *Gluten is a protein naturally found in wheat, barley, and rye, and more*
- *Don't eat it if: Celiac Disease, Gluten-Sensitivity, Wheat Allergy, Dermatitis herpetiformis*
- *Whole grains associated with improved health outcomes (heart disease, stroke, diabetes, death from all causes, and improved gut bacteria "probiotics")*
- *The gluten-free food industry has grown 136% from 2013 to 2015 with almost \$12 billion in sales in 2015, the biggest purchasers: the people who do not have celiac disease*

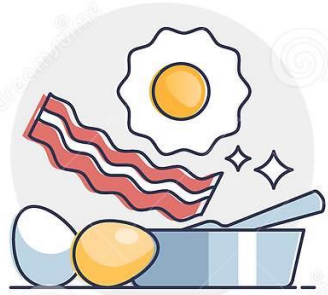
Supplements

- Vitamins and minerals, herbs and other botanicals, probiotics, fish oil, and other substances.
- Not intended to treat, diagnose, mitigate, prevent, or cure disease
- Do not self-diagnose any health condition.
- Vitamin D (2000-4000 IU), Vitamin B12 (with supervision of healthcare provider)
- Reliable Resources: NIH ODS, PubMed



Manage your weight!

- Shoot for 5-10% weight loss/6 months
 - ❖ Blood pressure
 - ❖ Blood sugar
 - ❖ Cholesterol levels
 - ❖ Sleep apnea symptoms
 - ❖ Insulin resistance
 - ❖ Amount of medications needed
 - ❖ Chronic inflammation (extra fat creates chemicals that cause inflammation throughout your body)
 - ❖ Joint pain
 - ❖ Shortness of breath



KETO



PALEO



VEGETARIAN



VEGAN

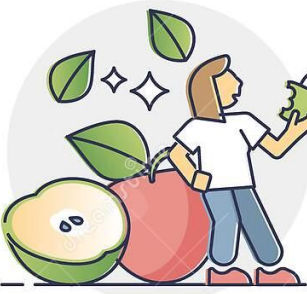
TYPES OF DIETS



MEDITERRANEAN



LOW CARB



RAW



NO SUGAR

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Comparison of Weight-Loss Diets with Different Compositions of Fat, Protein, and Carbohydrates

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Abstract

BACKGROUND—The possible advantage for weight loss of a diet that emphasizes protein, fat, or carbohydrates has not been established, and there are few studies that extend beyond 1 year.

METHODS—We randomly assigned 811 overweight adults to one of four diets; the targeted percentages of energy derived from fat, protein, and carbohydrates in the four diets were 20, 15, and 65%; 20, 25, and 55%; 40, 15, and 45%; and 40, 25, and 35%. The diets consisted of similar foods and met guidelines for cardiovascular health. The participants were offered group and individual instructional sessions for 2 years. The primary outcome was the change in body weight after 2 years in two-by-two factorial comparisons of low fat versus high fat and average protein versus high protein and in the comparison of highest and lowest carbohydrate content.

RESULTS—At 6 months, participants assigned to each diet had lost an average of 6 kg, which represented 7% of their initial weight; they began to regain weight after 12 months. By 2 years, weight loss remained similar in those who were assigned to a diet with 15% protein and those assigned to a diet with 25% protein (3.0 and 3.6 kg, respectively); in those assigned to a diet with 20% fat and those assigned to a diet with 40% fat (3.3 kg for both groups); and in those assigned to a diet with 65% carbohydrates and those assigned to a diet with 35% carbohydrates (2.9 and 3.4 kg, respectively) ($P > 0.20$ for all comparisons). Among the 80% of participants who completed the trial, the average weight loss was 4 kg; 14 to 15% of the participants had a reduction of at least 10% of their initial body weight. Satiety, hunger, satisfaction with the diet, and attendance at group sessions were similar for all diets; attendance was strongly associated with weight loss (0.2 kg per session attended). The diets improved lipid-related risk factors and fasting insulin levels.

CONCLUSIONS—Reduced-calorie diets result in clinically meaningful weight loss regardless of which macronutrients they emphasize.

There is intense debate about what types of diet are most effective for treating overweight — those that emphasize protein, those that emphasize carbohydrates, or those that emphasize fat.
^{1–3} Several trials showed that low-carbohydrate, high-protein diets resulted in more weight

Get Moving!

- *Manage Diabetes*
- *Maintaining a healthy weight*
- *Losing weight, if needed*
- *Feeling happier*
- *Sleeping better*
- *Improving your memory*
- *Controlling your blood pressure*
- *Lowering LDL (“bad”) cholesterol and raising HDL (“good”) cholesterol*

Get Moving!

1. at least 150 minutes per week of moderate-intensity physical activity (20-25 min/day)

- ✓ Walking briskly
- ✓ Doing housework
- ✓ Mowing the lawn
- ✓ Dancing
- ✓ Swimming
- ✓ Bicycling
- ✓ Playing Sports



2. 2 or more days a week, include activities that work all major muscle groups (legs, hips, back, abdomen, chest, shoulders, and arms).

Where to Start?

- *Find Something you like*
- *Start Small*
- *Find a Partner*
- *Pick a goal*
- *Schedule it in*



Get Enough Sleep

- *As vital as food for survival*
 - ❖ *7-9 hours of sleep is recommended (quality and quantity)*
 - ❖ *Can be affected by medical conditions, illnesses, or medications*
 - ❖ *Your Learning, Memory, and Mood (sleep on it, Frankenstein)*
 - ❖ *Heart Health*
 - ❖ *Hormone Regulation*
 - ❖ *No more than 20 min of naps*

Smoking, alcohol , and stress

- *Smoking Cessation can cause dramatic reduction in inflammation levels within just a few weeks*
- *Alcohol: more research is needed, caution is recommended (The less the better)*
- *Chronic stress can spark the development of inflammation and cause flare-ups*





Questions??????

