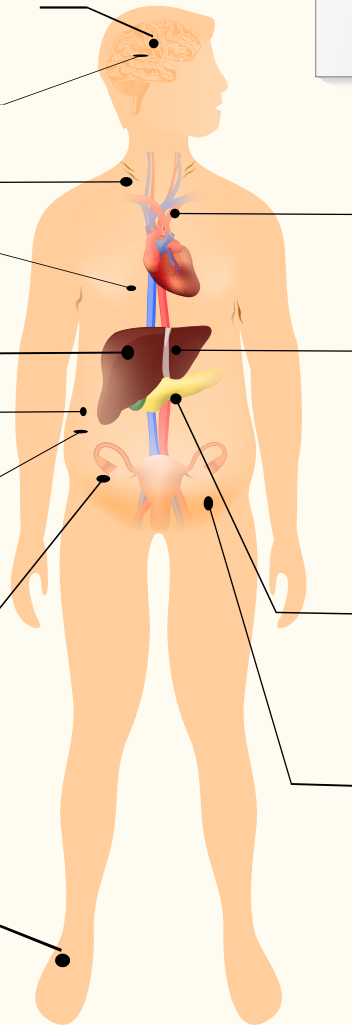


Metabolic Syndrome—A Diet & Lifestyle Disease

- 💣 *High Blood Pressure*
- 💣 *High Blood Sugar / Insulin*
- 💣 *Poor Cholesterol Profile*
- 💣 *Large waistline*

Do you have?

- Fatigue and poor focus
- Sleep apnea
- Depression, Anxiety
- Browning skin folds on the neck
- Reflux / GERD
- Non-alcoholic fatty liver disease (NAFLD)
- Kidney stress, Incontinence
- Weight and appearance stigmas
- Hormone imbalances
- Polycystic ovarian syndrome (women)
- Erectile dysfunction (men)
- Gout / elevated uric acid from liver conversion of fructose



Metabolic Syndrome is diagnosed when at least three of the following are present:

- ☛ Elevated blood pressure
> 130mm Hg systolic
> OR 85mm Hg diastolic
OR on blood pressure medications
- ☛ Elevated triglycerides
> 150 mg/dL (1.7 mmol/L)
OR on medications for triglycerides
- ☛ Low HDL-Cholesterol
≤ 40 mg/dL (1.04 mmol/L) men
≤ 50 mg/dL (1.3 mmol/L) women
OR on medications for low HDL-C
- ☛ Elevated blood glucose
≥ 100 mg/dL
OR on blood sugar medications
- ☛ Elevated waist circumference
≥ 40 inches (men)
≥ 35 inches (women)

Question: Should we chase the symptoms with medications?

Or solve the real problem:

- ☞ Blood pressure can become elevated with too much blood sugar, high insulin, also any source of stress (chemical, metal, infections (virus, yeast, bacteria, parasites...), broken bones, food hypersensitivities)... which is it?
- ☞ Triglycerides become elevated due to surges in blood sugar or generally eating too many anti-foods. Cholesterol imbalances can be a sign of fatty liver caused by all.



Step One: The Mediterranean Diet: What are you doing well; what can you improve?

	Question	Yes	No	Nutritional issue to discuss in response
1.	Is olive oil the main culinary fat used?			Choosing Healthier Fats Olive oil is high in monounsaturated fat. Using unsaturated fats instead of saturated fats in cooking and preparing food is advisable.
2.	Are ≥ 4 tablespoons of olive oil used each day?			Healthy fats are better than very low fat Med diet is more beneficial than a very low fat diet in prevention of CVD. So replacing saturated with unsaturated fat is better than replacing it with carbohydrates or protein.
3.	Are ≥ 2 servings (of 200g each) of vegetables eaten each day?			Eat plenty of fruits and vegetables Eating a wide variety of fruit and vegetables every day helps ensure adequate intake of many vitamins, minerals, phytochemicals and fibre. Studies have shown that eating plenty of these foods is protective for CVD and cancer.
4.	Are ≥ 3 servings of fruit (of 80g each) eaten each day?			
5.	Is < 1 serving (100-150g) of red meat/ hamburgers/ other meat products eaten each day?			Choose lean meats and consider cooking methods Red and processed meats are high in saturated fat, can be high in salt and are best replaced with white meat or fish or vegetarian sources of protein. Grill or roast without fat, casserole or stir fry.
6.	Is < 1 serving (12g) of butter, margarine or cream eaten each day?			Keep saturated fat low These foods are high in saturated fat which can increase your blood cholesterol level. Choose plant-based or reduced-fat alternatives.
7.	Is < 1 serving (330ml) of sweet or sugar sweetened carbonated beverages consumed each day?			Excessive consumption of sugar-sweetened beverages can worsen many risk factors for CVD: keep consumption to < 1/day.
8.	Are ≥ 3 glasses (of 125ml) of wine consumed each week?			Moderate alcohol intake with meals While this does have some protective effect but there is no evidence that non-drinkers should take up drinking alcohol.
9.	Are ≥ 3 servings (of 150g) of legumes consumed each week?			Include soluble fibre These foods are high in soluble fibre and other useful nutrients. Regular consumption is advisable for raised cholesterol.
10.	Are ≥ 3 servings of fish (100-150g) or seafood (200g) eaten each week?			Eat more oily and white fish Oily fish is an excellent source of essential omega-3 fats. White fish is very low in saturated fat.
11.	Is < 3 servings of commercial sweets/pastries eaten each week?			Eat less processed food These foods are usually high in saturated fat, salt or sugar and often contain trans fats. Replacing these with healthy snacks such as fruit or unsalted nuts is beneficial.
12.	Is ≥ 1 serving (of 30g) of nuts consumed each week?			Snack on modest servings of unsalted nuts Nuts are rich in unsaturated fat, phytosterols, fibre, vitamin E and iron, e.g. walnuts, almonds, hazelnuts
13.	Is chicken, turkey or rabbit routinely eaten instead of veal, pork, hamburger or sausage?			'White meat' choices are lower in saturated fat. Remove the skin and consider your cooking method.
14.	Are pasta, vegetable or rice dishes flavoured with garlic, tomato, leek or onion eaten ≥ twice a week?			Using a tomato and garlic or onion or leek-based sauce regularly is a key feature of the Med diet.
TOTAL SCORE (total no. of 'yes' answers)				

Chong MF, Macdonald R, Lovegrove JA. Fruit polyphenols and CVD risk: a review of human intervention studies. *Br J Nutr.* 2010;104(suppl 3):S28–S39.

Lacey, B., Herrington, W. G., Preiss, D., Lewington, S., & Armitage, J. (2017). The Role of Emerging Risk Factors in Cardiovascular Outcomes. *Current Atherosclerosis Reports*, 19(6), 28.

Williamson G, Manach C. Bioavailability and bioefficacy of polyphenols in humans. II. Review of 93 intervention studies. *Am J Clin Nutr.* 2005;81(suppl):243–255.

Zhang, X., Devlin, H. M., Smith, B., Imperatore, G., Thomas, W., Lobelo, F., ... Gregg, E. W. (2017). Effect of lifestyle interventions on cardiovascular risk factors among adults without impaired glucose tolerance or diabetes: A systematic review and meta-analysis. *PLoS ONE*, 12(5), e0176436.