



**34.2%** of Americans in 2007-2012 were afflicted by the metabolic syndrome<sup>1</sup>.

### An epidemic influenced by dietary choices and a sedentary lifestyle

The rise in the number of individuals experiencing this syndrome has paralleled the increase in rates of obesity and type 2 diabetes.

- ▶ Metabolic syndrome is more common than other diseases like diabetes, and is reported to be 3 times more common<sup>2</sup>
- ▶ On a global scale approximately one-quarter of the world population is afflicted by this condition, which means >1 billion people meet the criteria for the metabolic syndrome<sup>3</sup>
- ▶ US adults who are gradually experiencing increased BMI and waist circumference also have higher rates of physical inactivity (<10 min of moderate or vigorous activity per week) at rate of 51.7% in women and 43.5% in men<sup>2</sup>
- ▶ The increased rates of metabolic syndrome have also been correlated with increased consumption of diets that are processed, high in calories and fat, energy-dense, and artificially sweetened<sup>4</sup>

## Getting Started

Talk to your nutritionist and doctor. Make a plan! Here are some tips to begin your journey:

- Meal plan during the weekends to limit having to buy unhealthy options at work or nearby restaurants
- Pack some healthy snacks to eat when you're hungry, go for mixed nuts, fruits, yogurt, or veggies and hummus
- Avoid deep-fried foods, limit alcohol intake to a monthly occasion
- Bring water with you so you are less tempted to buy sweetened or soft drinks
- Take the stairs frequently, if you live close to work trying walking there on a regular basis
- Take a walk around the neighborhood to explore or to run errands
- If you're tempted to make an unhealthy choice, remember to portion control and stick to the recommended serving size
- Try to fit in 30-minute exercises 5 days per week to hit a goal target of 2.5 hrs per week

### Starting Resources to Consider

- ChooseMyPlate.gov
- Cronometer.com
- FitnessBlender.com

- References**
1. Louis-Jean S. and Martirosyan D., 2019
  2. Saklayen MG, 2018
  3. Moreno-Fernandez S et al, 2018
  4. De Sousa S.M.C., 2016
  5. Wewege M.A. et al., 2018
  6. Hafizi H., 2017



# THE METABOLIC SYNDROME

Are you at risk?

LIFESTYLE CHANGES  
YOU CAN MAKE TODAY

# What is the metabolic syndrome?



Obesity



Type 2 diabetes



Insulin resistance



High cholesterol



High blood pressure



High triglycerides

It is diagnosed by the presence of 3 or more of the following cardiometabolic risk factors<sup>1</sup>:

1. **Central Obesity** – increased waist circumference
2. **High Blood Pressure** – systolic pressures > 130 mmHg and/or diastolic pressures > 85 mmHg
3. **High Blood Sugars** – blood glucose levels > 150 mg/dL
4. **Low HDL Cholesterol** – (<40 mg/dL in males and <50 mg/dL in females)

Having this syndrome increases your risk for diabetes, cardiovascular disease, fertility issues, and fatty liver disease.

## These risks can be counteracted with healthy defaults

Also known as individual choices you can incorporate into your daily life to maintain healthy behaviors.

## The Mediterranean diet has been reported to play a pivotal role in reversing the metabolic syndrome

The Mediterranean diet is characterized by recommended intake of specific foods<sup>1</sup>:

- ▶ Daily intake of olive oil, fruit, cereals, nuts, legumes and vegetables
- ▶ Moderate intake (few times per week) of fish/seafood, eggs, white meat, and dairy products
- ▶ Low intake (few times per month) of red meats, sweets, and wine/alcohol

*You can incorporate the Mediterranean diet into your meals and your food preparations.*

## Recommendations for Dietary Changes

Here's what you can do to reduce or reverse the metabolic syndrome<sup>4</sup>:

- ▶ Reduce daily calorie intake by 500-1,000 kcal/day; a target energy deficit of 2,500 kJ (approximately 600 calories) daily helps with weight loss
- ▶ Reduce total fat (<30%) and saturated fat (<10%) intake; in other words, avoid butter and go for olive oil
- ▶ Increase daily fiber intake with wholegrains, vegetables, fruits, and mono- and polyunsaturated fats
- ▶ Reduce dietary cholesterol to <200 mg daily



## Get Your Daily Fitness

Exercise plays an important role in helping control blood sugars, enhancing insulin sensitivity, reducing waist circumference, and improving both heart and vascular health. These benefits are improved by losing 5%-7% of your body weight by exercising at least 2.5 hours per week, while maintaining a balanced diet<sup>4,5</sup>.

### Interval Training<sup>6</sup>

- ▶ Interval training are exercises that increase heart rate to 90% of its potential with minimum rate of 70%
- ▶ Types of exercise: jumping rope, stair running, sprinting, shuttle runs (e.g. soccer, basketball)

### Vigorous Activity<sup>6</sup>

- ▶ Types of exercise: walking a 15-minute mile, playing tennis, or 2 hours of jogging, running, or cycling

### Resistance Training<sup>6</sup>

- ▶ Resistance training entails performing muscle building exercises to improve cardiovascular fitness
- ▶ Types of exercise: weight training using free weights, machines, resistance bands, or your own body weight

If you're contemplating regular exercise you should ease into your routine by starting with 10 minutes of moderate exercise and light resistance training before performing more rigorous activity<sup>6</sup>.