

# METABOLIC SYNDROME AND EXERCISE

PUBLIC

## WHAT IS METABOLIC SYNDROME?

Metabolic syndrome occurs when a person has a combination or cluster of related cardiovascular and metabolic disease risk factors, such as: (i) raised blood sugar levels, (ii) elevated blood pressure, (iii-iv) abnormal levels of blood fats (high 'bad fats' or low 'good cholesterol'), and (v) central obesity (increased fat around the abdominal organs). Metabolic syndrome may be diagnosed if you have at least 3 or 5 of these risk factors in combination. It can contribute to the risk of heart (cardiovascular) disease and other conditions like type 2 diabetes.

## HOW IS METABOLIC SYNDROME TREATED?

Management of metabolic syndrome is important for people with, or at risk of, cardiovascular disease. The aim is to reduce the risk of cardiovascular disease and type 2 diabetes by improving any abnormalities in body weight, blood pressure, blood fats and blood sugar. Management of metabolic syndrome should include lifestyle changes such as taking regular exercise, improving the diet and reducing weight and waist measurement. A doctor may prescribe medications to help any metabolic syndrome abnormalities, especially when lifestyle changes are not sufficient.



## WHY IS EXERCISE IMPORTANT FOR METABOLIC SYNDROME?

Regular exercise can:

- Improve blood sugar levels
- Lower blood pressure
- Decrease blood triglyceride levels ('bad fats') and modestly increase HDL-cholesterol ('good cholesterol')
- Reduce body weight and waist circumference.

Lifestyle interventions involving exercise can significantly reduce the risk of progression to type 2 diabetes in adults who have metabolic syndrome components. Although the combination of weight loss and exercise usually produces superior outcomes and should be encouraged, weight loss is often mistakenly considered the main reason for doing regular exercise. Of great importance, evidence shows that the improvement in metabolic syndrome abnormalities can be achieved without weight loss. This is relevant to your care given that weight loss from most available therapies is usually modest and difficult to sustain in the long-term.

## WHAT DO I NEED TO CONSIDER BEFORE STARTING EXERCISE?

If you have any questions as to whether, or what type of exercise is right for you, you may seek guidance from your medical practitioner and a referral to an accredited exercise professional (such as a Physiotherapist or an Accredited Exercise Physiologist). These professionals can conduct appropriate screening to determine what type of exercise will be both safe and beneficial for you, and can tailor a program to suit your goals, preferences and exercise abilities. This is particularly important if you are starting a new exercise program, or significantly changing your current exercise program. Visits to these allied health professionals may be covered by your private health insurance and Medicare (under a chronic disease management plan which can be developed by your General Practitioner).

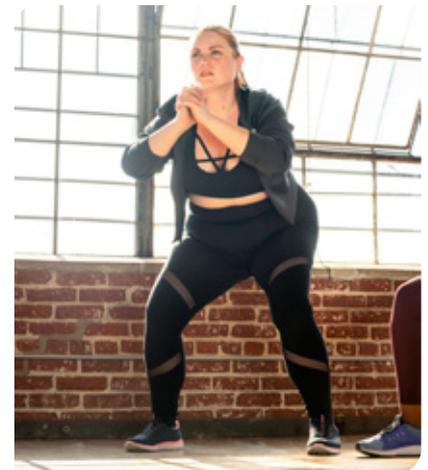
If you are also being managed by other health professionals, such as a cardiologist or an endocrinologist, it is important to let them know of your intentions to commence an exercise program.

## WHAT TYPE OF EXERCISE IS BEST?

Aerobic exercise (such as brisk walking, cycling, swimming, jogging, dancing and team sports) is beneficial for the management of metabolic syndrome and also improves the health of your heart, blood vessels and your cardiorespiratory fitness. Resistance exercise (such as weight lifting, body weight exercises, resistance band exercises and circuit training) can improve some metabolic syndrome abnormalities (although probably not abdominal fat levels) and also help to promote healthy muscles and bones. Undertaking a combination of regular aerobic exercise and progressive resistance training can reduce the risk of progressing to type 2 diabetes.

You should aim to achieve 150-300 minutes per week of aerobic exercise at a 'moderate' intensity. A simple rule of thumb is to exercise at a level that increases your breathing and heart rate but still allows you to maintain a conversation. Aim to do resistance training involving 2-3 sets of 8-10 different exercises, at a load that can be performed for 8-15 repetitions for each exercise, on two to three non-consecutive days per week.

It is important to select activities that are within your physical capabilities to prevent the risk of injury and to work with an accredited exercise professional if you have any musculoskeletal or other health concerns. It is also important to choose exercises that you enjoy so that you will stick to your exercise plan in the long-term.



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## FURTHER INFORMATION

Exercise is Medicine Australia  
[www.exerciseismedicine.org.au](http://www.exerciseismedicine.org.au)

Exercise Right [www.exerciseright.com.au](http://www.exerciseright.com.au)

Find a Physiotherapist [www.choose.physio](http://www.choose.physio)

Find an Accredited Exercise Physiologist [www.essa.org.au](http://www.essa.org.au)

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