

Water-based exercise and heart conditions

For many people, exercising in water can be very beneficial as it may lead to improvements in fitness, muscle strength, flexibility and balance. Unlike exercise on land however, there are some unique differences to consider when exercising in this environment.

Water depth and water temperature

Depth of water is an important consideration when exercising, because the water exerts a pressure against your body causing more blood to move from your legs towards your heart. The deeper the water, the greater the amount of blood returning to your heart, and the greater the work your heart has to do.

Another important factor to consider is water temperature. Cold water causes your blood vessels to narrow. It is for this reason that people prone to chest pain (angina), often experience this symptom more commonly at lower activity levels when in cold water compared to the similar activities on land. Cold water may also trigger irregular heart rhythms. On the other hand, jacuzzis, steam rooms and saunas that are of a very high temperature may lower your blood pressure and lead to dizziness.

What sort of exercise is best?

When undertaking any exercise, it is always important to start with a warm up and to finish with a cool down. In the case of water exercise, do this by walking slowly for up to 10 minutes. This can be done in several ways such as walking forwards, sideways and backwards across the width of a pool, maintaining the same water depth.

Aqua aerobics is considered a strenuous type of exercise and may not be suitable for certain heart conditions. There are many exercises that can be done in water and these are often similar to those done in a gymnasium. Equipment such as hand paddles, flippers and noodles can be used to make exercises easier or

harder, as can changing the speed that an exercise is performed. Doing an exercise faster creates more turbulence in the water and is therefore a good way of making the same exercise harder. Your exercise specialist will be able to suggest appropriate exercises for your condition.

Can I exercise in water if I have had a recent cardiac event or surgery?

Following a heart attack, exercise in water should be avoided for up to 4 weeks but will vary from person to person depending on individual circumstances. This is to allow a rest period for your heart to recover. Following open heart surgery, this recovery period will be longer and exercise in water should be avoided until the wound and breast bone are fully healed.

Considerations for people with heart failure

For many people with heart failure, exercising in water is safe. For some however, the increased work of your heart that occurs in water, and especially during swimming, may be considered too much and your exercise specialist may recommend an alternative type of exercise. Those who have had a recent hospitalisation or worsening of symptoms should always avoid exercise in water.

With respect to swimming, people with heart failure should always be cautious. However, many people with heart failure do swim without any significant concerns, so it is best to discuss this with your cardiologist or exercise specialist prior to starting any swimming programme. Similarly, advice should also be sought from a medical professional prior to commencing other water sports such as kayaking and wind surfing. SCUBA diving and snorkelling (involving diving) should always be avoided by people with heart failure.

Can I exercise in water if I have a pacemaker or defibrillator?

In general, having a pacemaker or defibrillator does not affect your ability to exercise in water, except for the first few weeks after surgery when the wound is healing. The most important consideration related to exercise in water is the reason for having the device inserted. If you have had previous unusual heart rhythms, and particularly those with long QT syndrome (a type of heart rhythm problem), exercise in water is not recommended. Your specialist will be able to advise you about your individual situation.

People with defibrillators should always be accompanied by another person when exercising in water, in the event of the device firing.

Guidelines for water based activities for people with a heart condition

1. Do **NOT** attempt any water-based activities if you have had any recent changes in symptoms such as worsening breathless, swelling of your legs or abdomen, unexplained weight gain or difficulty lying flat due to breathlessness. These symptoms may indicate that your body is holding onto fluid and you should seek medical advice.
2. Always have someone with you, especially when you first start. Keep a mobile phone by the side of the pool should you need to seek assistance.
Avoid exercising in water in remote locations.
3. Keep relevant medications such as anginine (sprays or tablets) and breathing puffers close by.
4. Exercise in waist deep water only, especially when first starting out.
5. Avoid extremes of temperature. It is best to start in warm water.
6. Always start slow and **do not** keep exercising just because you feel fine. Exercising in warm water often leads to fatigue **after** you have finished exercising or in many cases, the following day. For this reason, it is easy to under-estimate how hard your body is working. Only progress exercises once you have found a good routine and you know how you respond to the exercise.
7. If you experience any chest pain, dizziness or breathlessness beyond which is normal for you, **stop** exercise straight away and get out of the water.