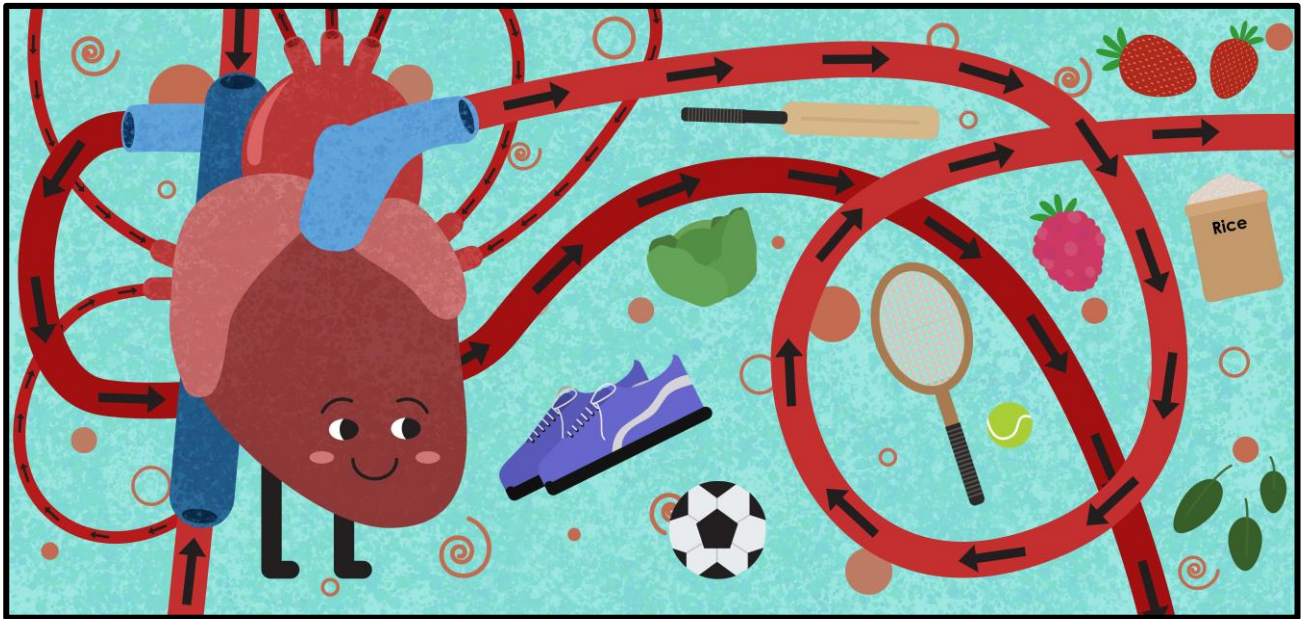


Deepening Understanding

YR6 Non-fiction Text

A Healthy Heart by Vicky Birch



The heart: complex, intricate, sophisticated and arguably our most vital organ for keeping us alive. With such an elaborate design, some argue this supports the notion that we must have an omnipotent creator; only a supreme maker would have been capable of forming such a powerful and purposeful structure which nature itself could not possibly have hoped to design. Others believe however, that the complexity of the heart is simply the process of evolution; it is through years upon years of life which caused us to produce such an astoundingly perfect organ. What we do know, is that the heart is essential to our existence - without it, we would cease to survive.

How the heart operates

Powered by electrical impulses, the heart has the significant task of transporting blood so that oxygen and nutrients can be distributed around the body. This enables us to continue functioning and replenishing blood supplies to maintain our health. As the heart contracts, its muscular force powerfully pushes blood out of the aorta (the main artery located on the left side) and into the arteries leading away from the heart.

Once blood has reached all areas of the body, it then begins its journey back towards the lungs (now de-oxygenated), where carbon dioxide is released and oxygen is restored as a result of respiration. This is an essential part of the process as without it waste products would accumulate and could cause severe damage. Once the blood re-enters the heart - now through the right side - the process can commence again.

Did you know, that the heart beats approximately 100,000 times, whilst pushing around 7570 litres of blood every day? That's certainly a demanding and strenuous workload, which is why it is important we understand how to maintain a healthy heart.

How to have a healthy heart

Maintaining a healthy lifestyle is the key to sustaining a healthy heart. There are four crucial factors to consider: diet, consuming the correct amounts of the right foods; exercise, ensuring you participate regularly; stress, wherever possible relieving it from daily life; and lifestyle choices, such as considering how smoking and drinking alcohol might impact your heart. Although these things may seem simple, it is easy to overlook the long-lasting effects that neglecting even one of these factors could have upon your heart's health.

It goes without saying that nutrition is an important factor, and there are so many ways that our diets can help keep our hearts healthy. For example, antioxidants (useful to prevent or slow damage to cells within the body) can be found within a variety of foods, such as leafy green vegetables and berries. These foods also contain great amounts of Vitamin K, which helps to protect arteries, subsequently protecting the heart. Whole grain foods (such as brown rice, oats and wheat) are considered a healthy heart food, as they can lower the chance of heart disease. Fish oils - which are high in Omega 3 - also help to reduce the risk of heart disease, as well as diminishing the possibility of high blood pressure and high cholesterol. These are only some of the foods which can be consumed as part of a balanced diet to help maintain a healthy heart. On the other hand, however, high amounts of salt, sugar and saturated fats can be detrimental (causing blockages in arteries) and putting you at greater risk of a heart attack.



Regular exercise is paramount to maintaining a healthy heart. It is recommended that adults should participate in a minimum of 30 minutes of aerobic exercise (where the heart rate is raised) per day, at least five times a week. This does not have to be mundane and monotonous but can vary from swimming to skipping, or cross-country to kayaking!

Lifestyle choices can also heavily influence an individual's overall health, including that of their heart. Research suggests that both smoking and regular consumption of high quantities of alcohol, can have similarly damaging effects upon the heart. This is because it increases the risk of cardiovascular disease - an illness impacting the heart or blood vessels.

Fun facts

- Your heart is about the same size as your fist. Make a fist and have a look for yourself to see how big your heart is!
- Did you know that a heart can continue to beat even when it's disconnected from the body? This can last for about 3-5 minutes!
- Mice have an incredibly quick heartbeat. On average, a human's heart will beat between 60-100 BPM (beats per minute). In contrast, however, a mouse's will beat between 310-840 BPM!
- Did you know that giraffes have a particularly unusual heart? Their hearts are lopsided, as in order for blood to be pumped high up its long neck to reach its brain, the left side of the heart has to be much thicker and stronger than the right!

The next time you go for a run, play football with your friends or even begin to feel nervous or excited, have a think about what is happening inside you. Can you feel your heart begin to beat more rapidly? Can you feel how powerfully it pumps? Consider how difficult it must be, working to sustain the blood flow within your body and allowing you to continue daily life without even taking a second thought as to how. We must remember to reflect upon the spectacular job that our heart is doing and, as we do, ensure we are treating our bodies with respect by trying our best to live a lifestyle which promotes a healthy heart.

