



Heart failure – what is it?

The term 'heart failure' has an unpleasant ring to it. Heart failure describes a state that many people with known heart disease reach in later life. The heart disease may be of any type. In Australia the most common cause is coronary heart disease with past heart attacks. Next is long-standing high blood pressure.

The heart pumps blood around the body, mostly through the work of the left ventricle, which is the main muscular pumping chamber. If the wall of the pumping chamber is damaged through scarring from past heart attacks, it may contract less well. If that happens, it may fail to force the blood out into the arteries. Blood dams back in the lungs, which become congested and stiff. Breathlessness then appears with effort, even slight effort, even at rest, due to the heart failure.

If a high blood pressure is present for many years, the wall of the left ventricle increases in thickness and strength. That may lead to stiffness. Stiffness and thickening can prevent the blood, which is coming into the heart from the lungs, from entering the left ventricle. This then leads to blood damming back into the lungs and heart failure appears.

The failure to pump the blood into the arteries means that the tissues all over the body fail to get an adequate supply of oxygen for their normal functions. The organs (e.g. kidney, liver, brain, muscles) send out messages to increase the blood flow to them. Blood volume is increased by extra fluid being held back (not passed to the urine by the kidneys).

This fluid shifts into the tissues, which become 'waterlogged'. The ankles swell. The pressure in the veins rises. The inefficient heartbeat is recognised through breathlessness, fatigue, swelling of ankles, prominent veins in the neck, rapid heartbeat, added heart sounds, congested lungs, increased heart size and other features. Tests are needed to assure that the above features are not due to something else. So the diagnosis is confirmed by tests.

Heart failure is common in old age amongst those with long-standing heart disease. The condition is as nasty as its name sounds. It can be treated and controlled but is rarely cured. Modern treatments are, however, highly effective. Drug treatments can assure the fluid overload is removed. Medications to open blood vessels and lower blood pressure reduce the work of the heart. Slowing the heart rate also reduces the heart's work.

There are other treatments to modify the pattern of the heart's contraction. Thus, much improvement is possible. These advances have been so rapid that it is difficult for doctors in practice to keep up.

Other significant non-pharmacological advances have also been made to support patients and improve their quality of life. These include better education of patients and carers, telephone checking regarding patients' progress and problems, home visits, coordination of care through nurses working with doctors, special clinics and more.

All of these efforts have been demonstrated to improve the quality of life and reduce the symptoms of patients, reduce readmission to hospital and prolong life. There is a movement away from the bed in the hospital to a comfortable and active life at home.

Patients with heart failure are commonly unhappy with restrictions imposed on them by breathlessness and fatigue. They may be anxious about their future: so may the spouse or main carer and family. Carers often need as much information and support as do patients themselves. This need is magnified because most of the patients are over 70 years old and many have other medical problems, poor memory or inattention to self-care. There may be too many problems for the doctor to handle. The doctor may have inadequate information from the hospital to which the patient had been admitted.

There is so much that patients and their families can do to help. Hospitals, health authorities, medical practitioners and others now recognise that community and group activities are of great added value. We have learned that exercise is beneficial, so physical activity programs, even exercise conditioning programs, are being recommended. It is now recognized that the lives of those with heart failure can be much better. Further, we now know the development of heart failure can be prevented. We are living longer. We can live better and enjoy our longer life.

Heart Research Centre and heart failure

In recent years the Heart Research Centre has produced two major reports on heart failure for health professionals. The work included conducting group discussions with nurses, doctors, physiotherapists and others caring for patients with heart failure. The groups were very lively and provided important feedback about how the above approaches to the management of heart failure patients can be improved still further by measures such as increasing communication between hospitals, doctors, the community and rehabilitation staff.

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