



SIGNS AND SYMPTOMS OF CONGESTIVE HEART FAILURE

The symptoms of congestive heart failure (CHF) result from the effects brought on by lack of oxygen to the various parts of the body and/or the backing up of fluid into areas of the body (e.g. lungs) because it is not being accepted into the heart quickly enough.

Systolic CHF or left-sided heart failure results in shortness of breath, fatigue, and coughing, especially at night and/or while lying down. There may also be congestion in the lungs as a result of the blood not being pumped out of the left side of the heart quickly enough.

Diastolic CHF or right-sided heart failure tends to cause fluid build-up in the veins and swelling (edema) in the legs, abdomen, and ankles.

Additional symptoms of CHF include swollen neck veins, abdominal discomfort such as swelling, pain or nausea, mental confusion, and heart palpitations. Since the symptoms of congestive heart failure tend to become progressively worse with time, the disease has been classified according to the severity of symptoms:

Class I: No obvious symptoms, no limitations on physical activity.

Class II: Some symptoms during or after normal activity, mild physical activity limitations.

Class III: Symptoms with less than normal activity, moderate to significant physical activity limitations.

Class IV: Significant symptoms at rest, severe to total physical activity limitations.

Kidney malfunction or failure may occur in the later stages of CHF.

Doctors may be able to notice the following signs of CHF: an abnormal heart murmur, a crackling sound of fluid in the lungs (rales), irregular heart rhythms, enlargement of the heart and liver malfunction.



WHERE TO FIND MORE INFORMATION

The Heart and Stroke Foundation of Canada
222 Queen St., Suite 1402
Ottawa, Ontario K1P 5V9
Phone: 613-569-4361
Check your local phone listings for the regional office nearest you or visit their website.
ww2.heartandstroke.ca

Health Canada - Healthy Heart Kit
www.phac-aspc.gc.ca/ccdpc-cpcmc/hhk-tcs/english/04_inactive/04_inac_stage3.htm

Heart Center Online
www.heartcenteronline.com

Canadian Health Network
www.canadianhealthnetwork.org

American Heart Association
www.americanheart.org

National Institutes of Health
National Heart, Lung and Blood Institute
www.nhlbi.nih.gov/health

The information found in this PROfile health brochure is of a general nature only. It is not intended to replace the advice of your pharmacist, physician, or other healthcare provider. If you have questions relating to your specific health concerns, please contact your personal healthcare provider.



Congestive Heart Failure



Your PROfile Pharmacist has many resources available to help you understand and manage congestive heart failure and is always pleased to discuss your health concerns!

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WHAT IS CONGESTIVE HEART FAILURE?

All of the body's tissues require oxygen carried from our lungs through the bloodstream to survive. When the heart has weakened to the point that it cannot keep up with the demand of the tissues for oxygen-rich blood, the condition is called congestive heart failure (CHF).

The heart is a pump. It receives oxygen-poor blood in the right side from the veins, passes it through the lungs to get oxygen, and then sends the blood on to the left side of the heart. From the left side of the heart the oxygen-rich blood is pumped out to the aorta (the largest of arteries) and then on through many different arteries to the parts of the body that require oxygen.

Congestive heart failure most often results from the failure of the heart to pump sufficient blood out of the left side of the heart (systolic CHF or left-sided heart failure), but it can also result from an inability of the heart to accept enough blood into the pump on the right side (diastolic CHF or right-sided heart failure). Systolic and diastolic heart failure often occur at the same time, especially in the later years of life.



CAUSES OF CONGESTIVE HEART FAILURE

Congestive heart failure most often occurs as the result of a damaged or weakened heart. This may be the result of one or more of a number of causes:

Coronary artery disease - This condition is the result of the narrowing of arteries caused by build-up of fatty deposits (atherosclerosis). The heart muscle is deprived of oxygen rich-blood, causing it to become a weaker pump.

Heart attack - Heart attack causes a portion of the heart muscle to become damaged. This portion of the heart can no longer pump as strongly as it should.

High blood pressure - If blood pressure is high, the heart is forced to pump harder against the pressure to get the blood to the various areas of the body. Over time the heart muscle may thicken and enlarge to compensate for the extra work. This causes eventual weakness of the heart and may result in less space available within the compartments that hold the blood within the heart. When this happens less blood is pumped out per beat of the heart.

Faulty heart valves - Valves control the flow of blood into and out of the heart as well as between the compartments or chambers of the heart (atria and ventricles). A damaged valve may force the heart to work harder to keep the blood flowing properly. This problem can cause the heart to weaken over time.

Cardiomyopathy - This term refers to weakened heart muscle which may be damaged by infections, alcohol abuse and the toxic effects of drugs such as cocaine and some medications used to treat cancer.

Congenital heart defects - The heart and its chambers do not form correctly sometimes due to inherited or other factors. The heart needs to work harder to compensate for the problems and CHF may result.

Abnormal heart rhythms - If the heart is forced to work too hard as a result of abnormal heart rhythm (arrhythmia) it may be weakened over time, resulting in CHF. If the heartbeat is too slow it may not get the oxygen-rich blood to the various parts of the body efficiently. This can also lead to CHF.

Other medical conditions - Diabetes, severe anemia, overactive thyroid, lupus, kidney failure, liver failure, and emphysema may all promote CHF.



Treatment of congestive heart failure consists of a combination of non-drug and drug strategies.

LIFESTYLE CHANGES INCLUDE THE FOLLOWING:

- Stay as active as possible under limitations set by a doctor - in other words, there is a compromise between overdoing it and not getting enough physical activity
- Schedule relaxation and rest periods throughout the day
- Avoid excessive fluid intake
- Do not drink alcohol
- Keep a diary of daily weight and notify the doctor if there is a weight gain of three or more pounds in a single week (this may mean that you are retaining fluid and signal a need for change in treatment)

MEDICATIONS

Medications are chosen according to the nature of the underlying cause of the condition.

Diuretics (water pills) are used to eliminate excess fluid and flush away excess salt from the body. Spironolactone is a potassium-sparing diuretic that has been shown to be especially effective in treating people with severe CHF.

ACE inhibitors are medications that prevent the production of a chemical that causes blood vessels to tighten. They dilate blood vessels so that blood is allowed to flow more easily.

Angiotensin II receptor blockers act similarly to ACE Inhibitors. They are often used by people who can't tolerate ACE Inhibitors.

Digoxin helps the heart to beat more efficiently to reduce the symptoms of CHF. It may also help to control certain abnormal heart rhythms.

Beta blockers slow the heart down and reduce the risk of abnormal heart rhythms.

Verapamil is a calcium channel blocker that is especially useful in the treatment of diastolic CHF.

A combination of **nitrates and hydralazine** may be useful in treatment of systolic CHF.