Our vision is a world free from the fear of heart and circulatory diseases.
Heart & Circulatory Diseases (Cardiovascular Disease; CVD)

Heart and circulatory diseases is an umbrella term for all diseases of the heart and circulation – from those that are inherited or that a person is born with, to those that are developed later, such as coronary heart disease, atrial fibrillation, heart failure, stroke and vascular dementia.

• There are around 7.4 million people living with heart and circulatory diseases in the UK - an ageing and growing population and improved survival rates from heart attacks and strokes, could see these numbers rise still further.

• Normally in the UK there are an average of around 22,000 hospital admissions each week where a heart or circulatory disease is the main diagnosis, including 2,500 due to stroke and 2,000 due to a heart attack.

Coronavirus (Coronavirus Disease 2019; COVID-19)

COVID-19 is a new illness that can affect your lungs and airways. It’s caused by coronavirus.

• The illness can affect anyone, and the experience can vary from asymptomatic (no symptoms) or mild, to critical and fatal.

• Severe illness can cause widespread inflammation and affect the heart, blood pressure and other functions.

• Because the virus is new, there’s a lot we don’t yet know. But thanks to research, we are learning quickly.

For more information please visit the BHF website:

➢ What does coronavirus do to your body?
Coronavirus and Heart & Circulatory Diseases

Here are some key statistics – for sources and references see pages 7-8.

- Research suggests that people in the UK with underlying health conditions are at increased risk of severe complications from coronavirus, and an increased risk of death – such as heart disease, stroke and dementia (including vascular), plus their risk factors (e.g. diabetes, obesity).

![UK coronavirus mortality risk](image)

- Research suggests that people with heart failure are at increased risk of mortality if infected with coronavirus.
• Evidence suggests that people with hypertension (high blood pressure) may be at greater risk of getting severely ill with COVID-19 - especially if uncontrolled or untreated - but more research is needed.

• Analyses show that the pandemic has exacerbated health inequalities by age, gender and ethnicity and more research is required to understand these, including how heart and circulatory diseases and their risk factors affect Covid-19 risk and outcomes.

• A study of severe Covid-19 cases in hospitals across the UK showed that chronic cardiac disease was the most common comorbidity [other conditions that someone has been diagnosed with, e.g. high blood pressure and diabetes].

• A global study suggests that around half of heart scans from coronavirus patients in hospital show abnormalities, with one in seven showing severe abnormalities likely to impact on patients’ survival and recovery.

• Around 9 out of 10 deaths that mention coronavirus also record a pre-existing health condition.

• Coronary heart disease (CHD) is one of the most common pre-existing conditions for deaths involving coronavirus – others include dementia, cerebrovascular disease (stroke), hypertensive heart disease, diabetes and heart failure.

• Around 45 per cent of COVID-19 death certificates in England mention cardiovascular (heart and circulatory) disease.

• In just one week at the peak of the pandemic, there were more than 700 excess deaths from heart and circulatory diseases in England, including around 300 from coronary heart disease and nearly 200 from stroke.

• Throughout the whole of the pandemic, there were over 3,600 excess deaths from heart and circulatory diseases, some of whom will have also had Covid-19.

To read the full story, and to find out exactly what excess deaths means please read our blog post.
• Visits to accident and emergency (A&E) departments in England for suspected heart attacks dropped by around 50% at the start of the lockdown, suggesting that people in urgent need may have decided not to go to hospital.

• BHF-funded research suggests that an estimated 5,000 heart attack sufferers in England may have missed out on life saving hospital treatment due to the Covid-19 pandemic.

• The fall in the number of patients presenting to hospital in England & Wales with heart failure was even more marked than for heart attacks, dropping by two thirds (66 per cent) by the end of April 2020.

• In Scotland, heart and circulatory A&E attendances in March and April 2020 were almost 60% lower (compared to the previous year)

![Fig 2 - A&E heart and circulatory attendances, Scotland](image)

• Emergency cardiology admissions in Scotland declined by up to 40% during the pandemic.

• Data from Scotland suggest that the proportion of heart attack deaths in the home has increased during lockdown.
• It’s estimated that around 30,000 heart procedures in England have been postponed or cancelled because of the pandemic.

• Official data show that nearly 190,000 people were waiting for investigations or treatment in cardiology or cardiothoracic surgery in England at the end of August 2020.

• There has been a dramatic increase in waiting times for diagnostic care in England, peaking with 18 times as many people waiting more than six weeks for an echocardiogram, and lockdown activity dropped to just one third of normal levels.

• A poll suggested that one third of people with heart and circulatory had struggled to get the medicines they needed and 40% had had a planned test or procedure postponed or cancelled.

• BHF-funded research aims to rapidly understand “long Covid” – specifically the deadly link between Covid-19 and heart and circulatory diseases, and protect health against the damaging and potentially long-term effects of Covid-19.

COVID-19, research and the BHF

BHF Blog by Professor Sir Nilesh Samani, Medical Director – July 2020
BHF Coronavirus Hub – support and information
Our coronavirus support pages have been viewed 2.7 million times

bhf.org.uk/donate

Compiled by the British Heart Foundation.
Reviewed and updated 9 October 2020.
For any queries, contact us and we will do our best to help.
# Heart and Circulatory Diseases (Cardiovascular Disease; CVD) and Coronavirus (COVID-19)

## Numbers Living with Heart & Circulatory Diseases
- **BHF UK estimate based on latest Quality & Outcomes Framework prevalence data; NHS Digital/Public Health Scotland/StatsWales/DH Northern Ireland and health surveys with CVD fieldwork: NHS Digital/Scottish Government/Welsh Government**

## Historic Hospital Admissions for Heart & Circulatory Diseases

## Mortality Risk in Hospitalised COVID-19 Patients
- **The OpenSAFELY Collaborative (2020) Factors associated with COVID-19-related hospital death in the linked electronic health records of 17 million adult NHS patients**
  - www.medrxiv.org/content/10.1101/2020.05.06.20092999v1
  - doi.org/10.1002/jmv.26237
  - www.sciencedirect.com/science/article/pii/S1871403X20305500

## Heart Failure Risk & COVID-19

## Hypertension (High Blood Pressure) Risk & COVID-19
  - academic.oup.com/eurheartj/article/41/22/2058/5851436
- **Kanwal et al (2020) Am Coll Card - COVID-19 and Hypertension: What We Know and Don't Know**

## Health Inequalities and COVID-19
- **ISARIC (2020) Ethnicity & Outcomes from COVID-19: ISARIC CCP-UK Prospective Observational Cohort Study of Hospitalised Patients**

## Hospital Comorbidities – Most Common in COVID-19 Patients
- **Docherty et al (2020) BMJ - Features of 20,133 UK patients in hospital with covid-19 using the ISARIC WHO Clinical Characterisation Protocol:**
  - www.bmj.com/content/369/bmj.m1988

## Heart Scan Abnormalities in COVID-19 Patients
- **also Sandoval et al (2020) ACC - Key Points About Myocardial Injury and Cardiac Troponin in COVID-19**

## Pre-existing Conditions in 9 out of 10 COVID-19 Deaths; CHD One of Most Common
- **National Records of Scotland (2020) Deaths involving COVID-19, Scotland, pre-existing conditions analysis updated monthly around third week of month (other statistics updated weekly)**
  - www.nrscotland.gov.uk/news
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