How to start a research project

how to start a research project
how to start a research project in high school
how to start a research project introduction
how to start a research project proposal
how to start a research project in medicine
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how to start a research project in chemistry
how to make a research project
how to make a research project presentation
how to initiate a research project
<table>
<thead>
<tr>
<th>Project ID</th>
<th>Title</th>
<th>PI</th>
<th>Organization</th>
<th>Fiscal Year</th>
<th>Admin IC</th>
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<td>REBHOLZ, CASEY MARIE</td>
<td>JOHNS HOPKINS UNIVERSITY</td>
<td>2022</td>
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<td>2022</td>
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Start from the most general:

- Epidemiology of heart failure
- Pathophysiology of heart failure
- Management of heart failure

The pathophysiology of heart failure

Clinton D Kemp, John V Conte

Affiliations + expand
PMID: 22227365  DOI: 10.1016/j.carpath.2011.11.007

Abstract

Heart failure is a clinical syndrome that results when the heart is unable to provide sufficient blood flow to meet metabolic requirements or accommodate systemic venous return. This common condition affects over 5 million people in the United States at a cost of $10–38 billion per year. Heart failure results from injury to the myocardium from a variety of causes including ischemic heart disease, hypertension, and diabetes. Less common etiologies include cardiomyopathies, valvular disease, myocarditis, infections, systemic toxins, and cardiotoxic drugs. As the heart fails, patients develop symptoms which include dyspnea from pulmonary congestion, and peripheral edema and ascites from impaired venous return. Constitutional symptoms such as nausea, lack of appetite, and fatigue are also common. There are several compensatory mechanisms that occur as the failing heart attempts to maintain adequate function. These include increasing cardiac output via the Frank-Starling mechanism, increasing ventricular volume and wall thickness through ventricular remodeling, and maintaining tissue perfusion with augmented mean arterial pressure through activation of neurohormonal systems. Although initially beneficial in the early stages of heart failure, all of these compensatory mechanisms eventually lead to a vicious cycle of worsening heart failure. Treatment strategies have been developed based upon the understanding of these compensatory mechanisms. Medical therapy includes diuresis, suppression of the overactive neurohormonal systems, and augmentation of contractility. Surgical options include ventricular resynchronization therapy, surgical ventricular remodeling, ventricular assist device implantation, and heart transplantation. Despite significant understanding of the underlying pathophysiological mechanisms in heart failure, this disease causes significant morbidity and carries a 50% 5-year mortality.
Did you pick your favorite?
Time for guidelines

Wallace AS et al. Diabetes Care 2023
Keywords matter
Know the biology

Mohamed Elshennawy, M.D.
Accept that your project will change... a lot
Any questions? 😊

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