

the heart's oxygen supply and demand, is manifest most frequently as chest discomfort ([Chap. 14](#)), whereas reduction of the pumping ability of the heart commonly leads to fatigue and elevated intravascular pressure upstream of the failing ventricle. The latter results in abnormal fluid accumulation, with peripheral edema ([Chap. 41](#)) or pulmonary congestion and dyspnea ([Chap. 37](#)). Obstruction to blood flow, as occurs in valvular stenosis, can cause symptoms resembling those of myocardial failure ([Chap. 257](#)). Cardiac arrhythmias often develop suddenly, and the resulting symptoms and signs—palpitations ([Chap. 43](#)), dyspnea, hypotension, and syncope ([Chap. 21](#))—generally occur abruptly and may disappear as rapidly as they develop.

Although dyspnea, chest discomfort, edema, and syncope are cardinal manifestations of cardiac disease, they occur in other conditions as well. Thus, dyspnea is observed in disorders as diverse as pulmonary disease, marked obesity, and anxiety ([Chap. 37](#)). Similarly, chest discomfort may result from a variety of noncardiac and cardiac causes other than myocardial ischemia ([Chap. 14](#)). Edema, an important finding in untreated or inadequately treated heart failure, also may occur with primary renal disease and in hepatic cirrhosis ([Chap. 41](#)). Syncope occurs not only with serious cardiac arrhythmias but in a number of neurologic conditions as well ([Chap. 21](#)). Whether heart disease is responsible for these symptoms frequently can be determined by carrying out a careful clinical examination ([Chap. 239](#)), supplemented by noninvasive testing using electrocardiography at rest and during exercise ([Chap. 240](#)), echocardiography, roentgenography, and other forms of myocardial imaging ([Chap. 241](#)).

Myocardial or coronary function that may be adequate at rest may be insufficient during exertion. Thus, dyspnea and/or chest discomfort that appear during activity are characteristic of patients with heart disease, whereas the opposite pattern, that is, the appearance of these symptoms at rest and their remission during exertion, is rarely observed in such patients. It is important, therefore, to question the patient carefully about the relation of symptoms to exertion.