

## 20th-Century Medicine Books

### Heart Disease Books

Heart disease emerged as one of the leading causes of death in Western countries by the end of the 20th century. Great advances occurred in diagnosis, treatment, and prevention of this widespread disease.

Diagnosis improved with the widespread use of cardiac catheterization in the 1950s. This procedure involves threading a slender tube into the heart to take measurements and identify blocked arteries. Less invasive diagnostic methods, such as thallium scans in which a special imaging camera detects the movement of thallium in heart muscle, provided additional diagnostic improvements.

These techniques led to a new era in surgical treatment of coronary heart disease, artery blockages that cause most heart attacks. Physicians began treating blocked coronary arteries with a variety of new techniques. The first bypass operation was performed in 1967 and involved the creation of a new route for blood supply to reach blood-starved heart muscles. In balloon angioplasty, developed in 1977, a deflated balloon is inserted into a narrowed artery. The balloon is then inflated at the site of the narrowing to widen it. Other surgical advances included replacement of diseased heart valves with artificial valves; implantation of pacemakers that maintain normal heart rhythm; use of temporary artificial hearts; and better methods for correcting hereditary defects in the heart.

New drugs were developed to treat angina pectoris, the chest pain of heart disease; high blood pressure; dangerous abnormalities in heart rhythm; and high blood cholesterol levels. Studies showed that drug treatment could reduce the risk of a heart attack or stroke. In the 1980s, aspirin went into wide use to prevent blood clots that cause many heart attacks. Emergency medical personnel also began using drugs that dissolve clots and stop a heart attack if given soon after symptoms develop.

Advances have been made in the prevention of heart disease. Studies have identified risk factors such as high blood pressure, high blood cholesterol, cigarette smoking, diabetes, obesity, and lack of exercise. Government health agencies and public health groups began public education programs to help people reduce heart disease risks. These preventive methods seem to be working-according to the American Heart Association, the death rate from coronary heart disease declined 26.3 percent between 1988 and 1998.