



20th-Century Medicine Books

Cancer

Early detection and better treatment have resulted in major improvements in survival of patients with cancer. By 2000, 59 percent of people diagnosed with cancer were alive five years later, compared with only 25 percent in 1940. New drugs, surgical procedures, and ways of treating cancer with X rays and radioactive isotope radiation contributed to the improvement. In the 1990s, physicians used new knowledge about the human immune system to develop immunotherapy for some kinds of cancer, in which the immune system is stimulated to produce antibodies against specific invaders. Another form of immunotherapy is the use of monoclonal antibodies, genetically engineered antibodies that target specific cancer cells.

Screening tests for early detection of cancers of the cervix, prostate, breast, and colon and rectum became widely available. Researchers also made progress in identifying cancer genes that are associated with an increased risk of the disease and developed screening tests for some cancer genes. Advances in gene therapy also offered promise for new cancer treatments.

Health groups placed great emphasis in the second half of the century on cancer prevention through avoiding smoking and eating a diet rich in fresh fruits and vegetables. Despite these advances, the percentage of deaths from cancer increased from about 2 percent in 1900 to about 20 percent in 2000. Much of the rise, however, resulted from an increased proportion of older people, who are more vulnerable to cancer, and from cigarette smoking.