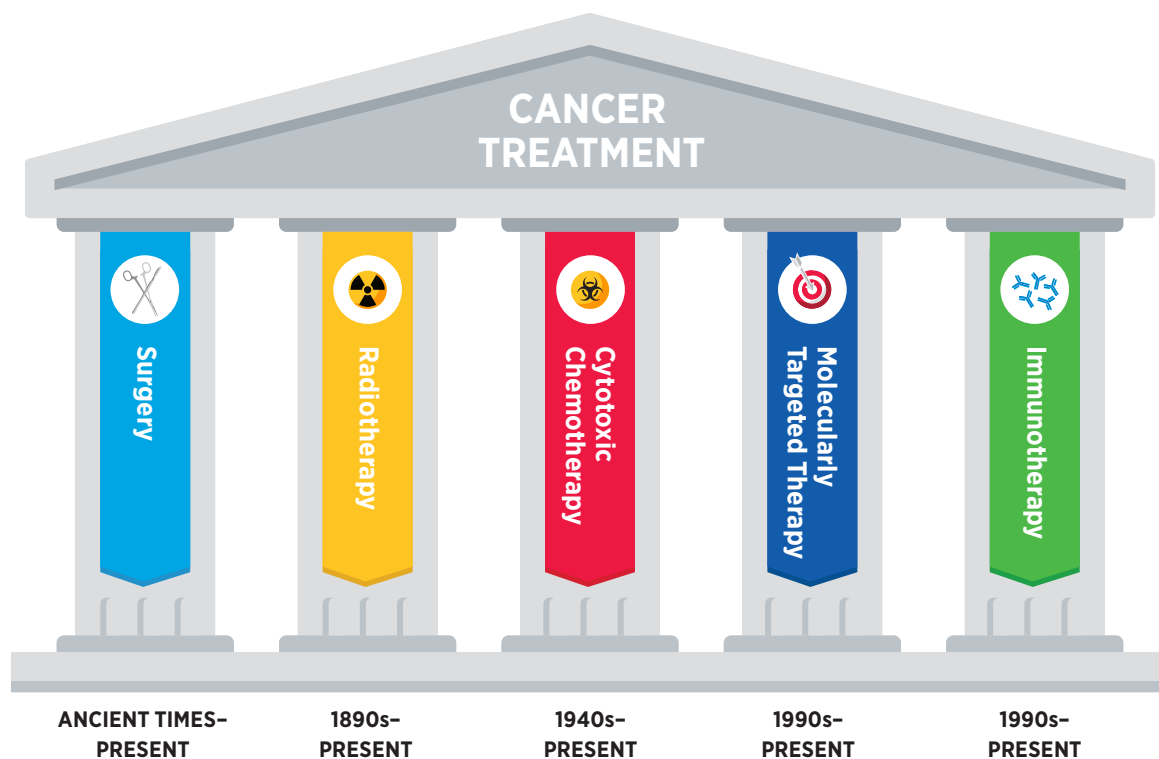


FIGURE 8

The Pillars of Cancer Treatment



The cancer treatment paradigm is built upon what physicians often refer to as the “pillars” of cancer treatment. For centuries, surgery was the only treatment for cancer. In 1896, treatment of a breast cancer patient with X-rays added radiotherapy as the second pillar. The foundations for the third treatment pillar—cytotoxic chemotherapy—were established in the early 1940s, with the use of a derivative of nitrogen mustard to treat lymphoma. These three pillars—surgery, radiotherapy, and cytotoxic chemotherapy—continue to be critical

components of cancer treatment. Introduction of the first molecularly targeted therapeutics in the late 1990s led to the establishment of the fourth pillar, molecularly targeted therapy. Also, in the late 1990s, decades of discovery science laid the groundwork for the fifth treatment pillar, immunotherapy. Continued evolution of new approaches, such as analysis of tumors aided by artificial intelligence, enhanced molecular imaging, and validation of new biomarkers, plays a critical role in advances in each of these therapeutic areas.