

SELF-STUDY MATERIAL

Read the text about modern surgery. Add more facts about its successful development in the 20th-21st centuries based on your online research:

MODERN SURGERY

Advances in modern surgery are almost incredible. In the 20th century antibiotics, kidney dialysis to clean the blood of poisons at regular intervals, heart-lung machine (cardiovascular bypass pump to keep patients alive during very long operations), intravenous fluid therapy, radical surgical resections and chemotherapy were introduced into surgical practice. In the 21st century a series of breakthroughs in the field of robotic surgical technologies have been made: smart operating rooms and 3D printing were invented and successfully implemented in surgery. Operations are now being performed that were not even dreamed of 50 years ago.

The heart valves can be safely repaired or replaced with artificial substitutes. Clogged blood vessels can be cleaned out and stented. Transplantation of organs and tissues has saved and improved millions of lives throughout the world. Kidney, heart, lung and liver transplants, as well as fatty tissue transplantation have become successful treatment options for patients with advanced progressive diseases.

The scope of surgery has increased remarkably in the 21st century. The three basic principles of modern day surgery are minimally invasive, organ sparing or saving and maximally restoring. The patient advantages of such surgeries include a shorter hospital stay, less pain and a faster total recovery time.

Nowadays, surgery is advancing rapidly thanks to the new technology of 3D printing, laparoscopy, endoscopy and smart operating rooms, which improve the quality of work of health professionals and the quality of patients' lives.

Answer the questions

1. What were the greatest achievements of the 20th century relating to surgery?
2. What breakthroughs have been made in surgery in the 21st century?
3. What kind of high-tech operations are successfully performed nowadays and help to save and improve people's lives?
4. What are the main principles of modern surgery?
5. What are the advantages of such surgery for the patient?
6. What surgical technologies improve the quality of operations?