



Surgery

Surgical Procedures

Surgical procedures are classified as optional, required, elective, urgent, and emergent based on the patient's medical condition. Optional surgery consists of operations that are not required but which the patient chooses to undergo as with some types of cosmetic surgery. Required surgery is performed when only surgery will correct a problem—such as cataracts—but the surgery can be delayed for a period of weeks or months. Elective surgical procedures usually involve conditions that may not require surgery but in which surgery will have a favorable effect—such as the removal of a small cyst. Urgent surgical procedures are performed when a patient's condition is not immediately life-threatening, but failure to treat it may result in death. Patients with some form of cancer are often considered urgent surgical cases. Emergency procedures must be performed within a few hours of a patient's arrival at a hospital to prevent death. These surgeries correct serious life-threatening conditions such as major wounds, blockages of the intestines, or appendicitis—inflammation of the appendix.

For any surgical procedure, medical care is provided before (preoperative), during (intraoperative), and after (postoperative) the operation. Preoperative care includes routine checks of vital signs including temperature, pulse, and blood pressure; analysis of blood and urine; and physical examination to evaluate organ function. An anesthesiologist (a physician trained to provide anesthesia) looks for signs that might make the administration of anesthetics dangerous such as chest infections or low blood pressure. A history of the patient's use of medications is acquired to prevent possible adverse interactions with anesthetics. A surgeon will generally counsel the patient and his or her family about the surgery and what to expect after the operation is performed. Preoperative care reduces the risk of complications during and after surgery.

Intraoperative care involves several members of the surgical team. The surgeon determines the timing of the operation, the techniques, and the instruments and supplies to be used. The anesthesiologist controls the patient's pain and, if necessary, the level of unconsciousness to make surgery more tolerable and ensure that the patient regains consciousness safely and quickly following the operation. The scrub nurse readies all instruments, ensures the sterility of the surgical field, and anticipates when instruments will be needed by the surgeon. The circulating nurse makes sure the operating room is adequately supplied and provides any additional supplies to the scrub nurse during the operation. Depending upon the hospital, surgical assistants, physician assistants, surgical residents, medical students, and nursing students may also attend an operation.

Postoperative care begins in a recovery room or intensive care unit (ICU). Both areas are equipped to monitor blood pressure and heart rate and provide supplemental oxygen, mechanical ventilation for the lungs, and physical support under critical circumstances. Drugs are often prescribed to control postoperative pain.