Root Operations in the Medical Surgical Section

Root operation	Definition	Example
Alteration	Modifying the natural anatomic structure of a body part without affecting the function of the body part	Face lift, breast augmentation
Bypass	Altering the route of passage of the contents of a tubular body part	Coronary artery bypass (CABG), colonoscopy formation
Change	Taking out or off a device from a body part and putting back an identical or similar device in or on the same body part without cutting or puncturing the skin or a mucous membrane	Urinary catheter change, gastrostomy tube change, drainage tube change
Control	Stopping, or attempting to stop, post-procedural bleeding	Control of post-prostatectomy hemorrhage, control of post- tonsillectomy hemorrhage
Creation	Making a new genital structure that does not take over the function of a body part	Creation of vagina in a male, creation of penis in a female
Destruction	Physical eradication of all or a portion of a body part by the direct use of energy, force, or a destructive agent	Fulguration of rectal polyp, cautery of skin lesion, fulguration of endometrium
Detachment	Cutting off all or part of the upper or lower extremities	Below knee amputation, disarticulation of shoulder, amputation above elbow
Dilation	Expanding an orifice or the lumen of a tubular body part	Percutaneous transluminal angioplasty, pyloromyotomy, PTCA
Division	Cutting into a body part without draining fluids and/or gases from the body part in order to separate or transect a body part	Spinal cordotomy, osteotomy, neurotomy
Drainage	Taking or letting out fluids and/or gases from a body part	Thoracentesis, incision and drainage
Excision	Cutting out or off, without replacement, a portion of a body part	Partial nephrectomy, liver biopsy, breast lumpectomy
Extirpation	Taking or cutting out solid matter from a body part	Thrombectomy, choledocholithotomy, excision of foreign body
Extraction	Pulling or stripping out or off all or a portion of a body part by the use of force	Dilation and curettage, vein stripping, suction D&C, D&C7
Fragmentation	Breaking solid matter in a body part into pieces	Extracorporeal shockwave lithotripsy, transurethral lithotripsy
Fusion	Joining together portions of an articular body part, rendering the articular body part immobile	Spinal fusion, ankle arthrodesis
Insertion	Putting in a non-biological appliance that monitors, assists, performs, or prevents a physiological function but does not physically take the place of a body part	Insertion of radioactive implant, insertion of central venous catheter
Inspection	Visually and/or manually exploring a body part	Diagnostic arthroscopy, exploratory laparotomy, diagnostic cystoscopy
Resection	Cutting out or off, without replacement, all of a body part	Total nephrectomy, total lobectomy of lung, total mastectomy
Restriction	Partially closing an orifice or the lumen of a tubular body part	Esophagogastric fundoplication, cervical cerclage
Revision	Correcting, to the extent possible, a malfunctioning or displaced device	Adjustment of pacemaker lead, adjustment of hip prosthesis, revision of pacemaker insertion
Supplement	Putting in or on biologic or synthetic material that physically reinforces and/or augments the function of a portion of a body part	Herniorrhaphy using mesh, free nerve graft, mitral valve ring annuloplasty, putting a new acetabular liner in a previous hip replacement, abdominal wall herniorrhaphy using mesh
Transfer	Moving, without taking out, all or a portion of a body part to another location to take over the function of all or a portion of a body part	Tendon transfer, skin pedicle flap transfer, skin transfer flap
Transplantation	Putting in or on all or a portion of a living body part taken from another individual or animal to physically take the place and/or function of all or a portion of a similar body part	Kidney transplant, heart transplant