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<b>CPT Code</b>	<b>Long Descriptor</b>
11004	Debridement of skin, subcutaneous tissue, muscle and fascia for necrotizing soft tissue infection; external genitalia and perineum
11005	Debridement of skin, subcutaneous tissue, muscle and fascia for necrotizing soft tissue infection; abdominal wall, with or without fascial closure
11006	Debridement of skin, subcutaneous tissue, muscle and fascia for necrotizing soft tissue infection; external genitalia, perineum and abdominal wall, with or without fascial closure
11008	Removal of prosthetic material or mesh, abdominal wall for infection (eg, for chronic or recurrent mesh infection or necrotizing soft tissue infection) (List separately in addition to code for primary procedure)
15756	Free muscle or myocutaneous flap with microvascular anastomosis
15757	Free skin flap with microvascular anastomosis
15758	Free fascial flap with microvascular anastomosis
16036	Escharotomy; each additional incision (List separately in addition to code for primary procedure)
19305	Mastectomy, radical, including pectoral muscles, axillary lymph nodes
19306	Mastectomy, radical, including pectoral muscles, axillary and internal mammary lymph nodes (Urban type operation)
19361	Breast reconstruction; with latissimus dorsi flap
19364	Breast reconstruction; with free flap (eg, fTRAM, DIEP, SIEA, GAP flap)
19367	Breast reconstruction; with single-pedicled transverse rectus abdominis myocutaneous (TRAM) flap
19368	Breast reconstruction; with single-pedicled transverse rectus abdominis myocutaneous (TRAM) flap, requiring separate microvascular anastomosis (supercharging)
19369	Breast reconstruction; with bipedicled transverse rectus abdominis myocutaneous (TRAM) flap

20661	Application of halo, including removal; cranial
20664	Application of halo, including removal, cranial, 6 or more pins placed, for thin skull osteology (eg, pediatric patients, hydrocephalus, osteogenesis imperfecta)
20802	Replantation, arm (includes surgical neck of humerus through elbow joint), complete amputation
20805	Replantation, forearm (includes radius and ulna to radial carpal joint), complete amputation
20808	Replantation, hand (includes hand through metacarpophalangeal joints), complete amputation
20816	Replantation, digit, excluding thumb (includes metacarpophalangeal joint to insertion of flexor sublimis tendon), complete amputation
20824	Replantation, thumb (includes carpometacarpal joint to MP joint), complete amputation
20827	Replantation, thumb (includes distal tip to MP joint), complete amputation
20838	Replantation, foot, complete amputation
20955	Bone graft with microvascular anastomosis; fibula
20956	Bone graft with microvascular anastomosis; iliac crest
20957	Bone graft with microvascular anastomosis; metatarsal
20962	Bone graft with microvascular anastomosis; other than fibula, iliac crest, or metatarsal
20969	Free osteocutaneous flap with microvascular anastomosis; other than iliac crest, metatarsal, or great toe
20970	Free osteocutaneous flap with microvascular anastomosis; iliac crest
21045	Excision of malignant tumor of mandible; radical resection
21141	Reconstruction midface, LeFort I; single piece, segment movement in any direction (eg, for Long Face Syndrome), without bone graft
21142	Reconstruction midface, LeFort I; 2 pieces, segment movement in any direction, without bone graft
21143	Reconstruction midface, LeFort I; 3 or more pieces, segment movement in any direction, without bone graft
21145	Reconstruction midface, LeFort I; single piece, segment movement in any direction, requiring bone grafts (includes obtaining autografts)

21146	Reconstruction midface, LeFort I; 2 pieces, segment movement in any direction, requiring bone grafts (includes obtaining autografts) (eg, ungrafted unilateral alveolar cleft)
21147	Reconstruction midface, LeFort I; 3 or more pieces, segment movement in any direction, requiring bone grafts (includes obtaining autografts) (eg, ungrafted bilateral alveolar cleft or multiple osteotomies)
21151	Reconstruction midface, LeFort II; any direction, requiring bone grafts (includes obtaining autografts)
21154	Reconstruction midface, LeFort III (extracranial), any type, requiring bone grafts (includes obtaining autografts); without LeFort I
21155	Reconstruction midface, LeFort III (extracranial), any type, requiring bone grafts (includes obtaining autografts); with LeFort I
21159	Reconstruction midface, LeFort III (extra and intracranial) with forehead advancement (eg, mono bloc), requiring bone grafts (includes obtaining autografts); without LeFort I
21160	Reconstruction midface, LeFort III (extra and intracranial) with forehead advancement (eg, mono bloc), requiring bone grafts (includes obtaining autografts); with LeFort I
21179	Reconstruction, entire or majority of forehead and/or supraorbital rims; with grafts (allograft or prosthetic material)
21180	Reconstruction, entire or majority of forehead and/or supraorbital rims; with autograft (includes obtaining grafts)
21182	Reconstruction of orbital walls, rims, forehead, nasoethmoid complex following intra- and extracranial excision of benign tumor of cranial bone (eg, fibrous dysplasia), with multiple autografts (includes obtaining grafts); total area of bone grafting less than 40 sq cm"
21183	Reconstruction of orbital walls, rims, forehead, nasoethmoid complex following intra- and extracranial excision of benign tumor of cranial bone (eg, fibrous dysplasia), with multiple autografts (includes obtaining grafts); total area of bone grafting greater than 40 sq cm but less than 80 sq cm"

21184	Reconstruction of orbital walls, rims, forehead, nasoethmoid complex following intra- and extracranial excision of benign tumor of cranial bone (eg, fibrous dysplasia), with multiple autografts (includes obtaining grafts); total area of bone grafting greater than 80 sq cm"
21188	Reconstruction midface, osteotomies (other than LeFort type) and bone grafts (includes obtaining autografts)
21194	Reconstruction of mandibular rami, horizontal, vertical, C, or L osteotomy; with bone graft (includes obtaining graft)
21196	Reconstruction of mandibular rami and/or body, sagittal split; with internal rigid fixation
21247	Reconstruction of mandibular condyle with bone and cartilage autografts (includes obtaining grafts) (eg, for hemifacial microsomia)
21255	Reconstruction of zygomatic arch and glenoid fossa with bone and cartilage (includes obtaining autografts)
21268	Orbital repositioning, periorbital osteotomies, unilateral, with bone grafts; combined intra- and extracranial approach
21343	Open treatment of depressed frontal sinus fracture
21344	Open treatment of complicated (eg, comminuted or involving posterior wall) frontal sinus fracture, via coronal or multiple approaches
21347	Open treatment of nasomaxillary complex fracture (LeFort II type); requiring multiple open approaches
21348	Open treatment of nasomaxillary complex fracture (LeFort II type); with bone grafting (includes obtaining graft)
21366	Open treatment of complicated (eg, comminuted or involving cranial nerve foramina) fracture(s) of malar area, including zygomatic arch and malar tripod; with bone grafting (includes obtaining graft)
21422	Open treatment of palatal or maxillary fracture (LeFort I type)
21423	Open treatment of palatal or maxillary fracture (LeFort I type); complicated (comminuted or involving cranial nerve foramina), multiple approaches

21431	Closed treatment of craniofacial separation (LeFort III type) using interdental wire fixation of denture or splint
21432	Open treatment of craniofacial separation (LeFort III type); with wiring and/or internal fixation
21433	Open treatment of craniofacial separation (LeFort III type); complicated (eg, comminuted or involving cranial nerve foramina), multiple surgical approaches
21435	Open treatment of craniofacial separation (LeFort III type); complicated, utilizing internal and/or external fixation techniques (eg, head cap, halo device, and/or intermaxillary fixation)
21436	Open treatment of craniofacial separation (LeFort III type); complicated, multiple surgical approaches, internal fixation, with bone grafting (includes obtaining graft)
21510	Incision, deep, with opening of bone cortex (eg, for osteomyelitis or bone abscess), thorax
21602	Excision of chest wall tumor involving rib(s), with plastic reconstruction; without mediastinal lymphadenectomy
21603	Excision of chest wall tumor involving rib(s), with plastic reconstruction; with mediastinal lymphadenectomy
21615	Excision first and/or cervical rib
21616	Excision first and/or cervical rib; with sympathectomy
21620	Ostectomy of sternum, partial
21627	Sternal debridement
21630	Radical resection of sternum
21632	Radical resection of sternum; with mediastinal lymphadenectomy
21705	Division of scalenus anticus; with resection of cervical rib
21740	Reconstructive repair of pectus excavatum or carinatum; open
21750	Closure of median sternotomy separation with or without debridement (separate procedure)
21825	Open treatment of sternum fracture with or without skeletal fixation
22010	Incision and drainage, open, of deep abscess (subfascial), posterior spine; cervical, thoracic, or cervicothoracic

22015	Incision and drainage, open, of deep abscess (subfascial), posterior spine; lumbar, sacral, or lumbosacral
22110	Partial excision of vertebral body, for intrinsic bony lesion, without decompression of spinal cord or nerve root(s), single vertebral segment; cervical
22112	Partial excision of vertebral body, for intrinsic bony lesion, without decompression of spinal cord or nerve root(s), single vertebral segment; thoracic
22114	Partial excision of vertebral body, for intrinsic bony lesion, without decompression of spinal cord or nerve root(s), single vertebral segment; lumbar
22116	Partial excision of vertebral body, for intrinsic bony lesion, without decompression of spinal cord or nerve root(s), single vertebral segment; each additional vertebral segment (List separately in addition to code for primary procedure)
22206	Osteotomy of spine, posterior or posterolateral approach, 3 columns, 1 vertebral segment (eg, pedicle/vertebral body subtraction); thoracic
22207	Osteotomy of spine, posterior or posterolateral approach, 3 columns, 1 vertebral segment (eg, pedicle/vertebral body subtraction); lumbar
22208	Osteotomy of spine, posterior or posterolateral approach, 3 columns, 1 vertebral segment (eg, pedicle/vertebral body subtraction); each additional vertebral segment (List separately in addition to code for primary procedure)
22210	Osteotomy of spine, posterior or posterolateral approach, 1 vertebral segment; cervical
22212	Osteotomy of spine, posterior or posterolateral approach, 1 vertebral segment; thoracic
22214	Osteotomy of spine, posterior or posterolateral approach, 1 vertebral segment; lumbar
22216	Osteotomy of spine, posterior or posterolateral approach, 1 vertebral segment; each additional vertebral segment (List separately in addition to primary procedure)
22220	Osteotomy of spine, including discectomy, anterior approach, single vertebral segment; cervical
22222	Osteotomy of spine, including discectomy, anterior approach, single vertebral segment; thoracic
22224	Osteotomy of spine, including discectomy, anterior approach, single vertebral segment; lumbar

22226	Osteotomy of spine, including discectomy, anterior approach, single vertebral segment; each additional vertebral segment (List separately in addition to code for primary procedure)
22318	Open treatment and/or reduction of odontoid fracture(s) and or dislocation(s) (including os odontoideum), anterior approach, including placement of internal fixation; without grafting
22319	Open treatment and/or reduction of odontoid fracture(s) and or dislocation(s) (including os odontoideum), anterior approach, including placement of internal fixation; with grafting
22325	Open treatment and/or reduction of vertebral fracture(s) and/or dislocation(s), posterior approach, 1 fractured vertebra or dislocated segment; lumbar
22326	Open treatment and/or reduction of vertebral fracture(s) and/or dislocation(s), posterior approach, 1 fractured vertebra or dislocated segment; cervical
22327	Open treatment and/or reduction of vertebral fracture(s) and/or dislocation(s), posterior approach, 1 fractured vertebra or dislocated segment; thoracic
22328	Open treatment and/or reduction of vertebral fracture(s) and/or dislocation(s), posterior approach, 1 fractured vertebra or dislocated segment; each additional fractured vertebra or dislocated segment (List separately in addition to code for primary procedure)"
22532	Arthrodesis, lateral extracavitary technique, including minimal discectomy to prepare interspace (other than for decompression); thoracic
22533	Arthrodesis, lateral extracavitary technique, including minimal discectomy to prepare interspace (other than for decompression); lumbar
22534	Arthrodesis, lateral extracavitary technique, including minimal discectomy to prepare interspace (other than for decompression); thoracic or lumbar, each additional vertebral segment (List separately in addition to code for primary procedure)
22548	Arthrodesis, anterior transoral or extraoral technique, clivus-C1-C2 (atlas-axis), with or without excision of odontoid process
22556	Arthrodesis, anterior interbody technique, including minimal discectomy to prepare interspace (other than for decompression); thoracic

22558	Arthrodesis, anterior interbody technique, including minimal discectomy to prepare interspace (other than for decompression); lumbar
22586	Arthrodesis, pre-sacral interbody technique, including disc space preparation, discectomy, with posterior instrumentation, with image guidance, includes bone graft when performed, L5-S1 interspace
22590	Arthrodesis, posterior technique, craniocervical (occiput-C2)
22595	Arthrodesis, posterior technique, atlas-axis (C1-C2)
22600	Arthrodesis, posterior or posterolateral technique, single interspace; cervical below C2 segment
22610	Arthrodesis, posterior or posterolateral technique, single interspace; thoracic (with lateral transverse technique, when performed)
22632	Arthrodesis, posterior interbody technique, including laminectomy and/or discectomy to prepare interspace (other than for decompression), single interspace, lumbar; each additional interspace (List separately in addition to code for primary procedure)
22800	Arthrodesis, posterior, for spinal deformity, with or without cast; up to 6 vertebral segments
22802	Arthrodesis, posterior, for spinal deformity, with or without cast; 7 to 12 vertebral segments
22804	Arthrodesis, posterior, for spinal deformity, with or without cast; 13 or more vertebral segments
22808	Arthrodesis, anterior, for spinal deformity, with or without cast; 2 to 3 vertebral segments
22810	Arthrodesis, anterior, for spinal deformity, with or without cast; 4 to 7 vertebral segments
22812	Arthrodesis, anterior, for spinal deformity, with or without cast; 8 or more vertebral segments
22818	Kyphectomy, circumferential exposure of spine and resection of vertebral segment(s) (including body and posterior elements); single or 2 segments
22819	Kyphectomy, circumferential exposure of spine and resection of vertebral segment(s) (including body and posterior elements); 3 or more segments
22830	Exploration of spinal fusion
22841	Internal spinal fixation by wiring of spinous processes (List separately in addition to code for primary procedure)

22843	Posterior segmental instrumentation (eg, pedicle fixation, dual rods with multiple hooks and sublaminar wires); 7 to 12 vertebral segments (List separately in addition to code for primary procedure)
22844	Posterior segmental instrumentation (eg, pedicle fixation, dual rods with multiple hooks and sublaminar wires); 13 or more vertebral segments (List separately in addition to code for primary procedure)
22846	Anterior instrumentation; 4 to 7 vertebral segments (List separately in addition to code for primary procedure)
22847	Anterior instrumentation; 8 or more vertebral segments (List separately in addition to code for primary procedure)
22848	Pelvic fixation (attachment of caudal end of instrumentation to pelvic bony structures) other than sacrum (List separately in addition to code for primary procedure)
22849	Reinsertion of spinal fixation device
22850	Removal of posterior nonsegmental instrumentation (eg, Harrington rod)
22852	Removal of posterior segmental instrumentation
22855	Removal of anterior instrumentation
22857	Total disc arthroplasty (artificial disc), anterior approach, including discectomy to prepare interspace (other than for decompression), single interspace, lumbar
22861	Revision including replacement of total disc arthroplasty (artificial disc), anterior approach, single interspace; cervical
22862	Revision including replacement of total disc arthroplasty (artificial disc), anterior approach, single interspace; lumbar
22864	Removal of total disc arthroplasty (artificial disc), anterior approach, single interspace; cervical
22865	Removal of total disc arthroplasty (artificial disc), anterior approach, single interspace; lumbar
23200	Radical resection of tumor; clavicle
23210	Radical resection of tumor; scapula
23220	Radical resection of tumor, proximal humerus

23335	Removal of prosthesis, includes debridement and synovectomy when performed; humeral and glenoid components (eg, total shoulder)
23474	Revision of total shoulder arthroplasty, including allograft when performed; humeral and glenoid component
23900	Interthoracoscapular amputation (forequarter)
23920	Disarticulation of shoulder
24900	Amputation, arm through humerus; with primary closure
24920	Amputation, arm through humerus; open, circular (guillotine)
24930	Amputation, arm through humerus; re-amputation
24931	Amputation, arm through humerus; with implant
24940	Cineplasty, upper extremity, complete procedure
25900	Amputation, forearm, through radius and ulna
25905	Amputation, forearm, through radius and ulna; open, circular (guillotine)
25915	Krukenberg procedure
25920	Disarticulation through wrist
25924	Disarticulation through wrist; re-amputation
25927	Transmetacarpal amputation
26551	Transfer, toe-to-hand with microvascular anastomosis; great toe wrap-around with bone graft
26553	Transfer, toe-to-hand with microvascular anastomosis; other than great toe, single
26554	Transfer, toe-to-hand with microvascular anastomosis; other than great toe, double
26556	Transfer, free toe joint, with microvascular anastomosis
26992	Incision, bone cortex, pelvis and/or hip joint (eg, osteomyelitis or bone abscess)
27005	Tenotomy, hip flexor(s), open (separate procedure)
27025	Fasciotomy, hip or thigh, any type
27030	Arthrotomy, hip, with drainage (eg, infection)

27036	Capsulectomy or capsulotomy, hip, with or without excision of heterotopic bone, with release of hip flexor muscles (ie, gluteus medius, gluteus minimus, tensor fascia latae, rectus femoris, sartorius, iliopsoas)
27054	Arthrotomy with synovectomy, hip joint
27070	Partial excision, wing of ilium, symphysis pubis, or greater trochanter of femur, (craterization, saucerization) (eg, osteomyelitis or bone abscess); superficial
27071	Partial excision, wing of ilium, symphysis pubis, or greater trochanter of femur, (craterization, saucerization) (eg, osteomyelitis or bone abscess); deep (subfascial or intramuscular)
27075	Radical resection of tumor; wing of ilium, 1 pubic or ischial ramus or symphysis pubis
27076	Radical resection of tumor; ilium, including acetabulum, both pubic rami, or ischium and acetabulum
27077	Radical resection of tumor; innominate bone, total
27078	Radical resection of tumor; ischial tuberosity and greater trochanter of femur
27090	Removal of hip prosthesis; (separate procedure)
27091	Removal of hip prosthesis; complicated, including total hip prosthesis, methylmethacrylate with or without insertion of spacer
27120	Acetabuloplasty; (eg, Whitman, Colonna, Haygroves, or cup type)
27122	Acetabuloplasty; resection, femoral head (eg, Girdlestone procedure)
27125	Hemiarthroplasty, hip, partial (eg, femoral stem prosthesis, bipolar arthroplasty)
27132	Conversion of previous hip surgery to total hip arthroplasty, with or without autograft or allograft
27134	Revision of total hip arthroplasty; both components, with or without autograft or allograft
27137	Revision of total hip arthroplasty; acetabular component only, with or without autograft or allograft
27138	Revision of total hip arthroplasty; femoral component only, with or without allograft
27140	Osteotomy and transfer of greater trochanter of femur (separate procedure)
27146	Osteotomy, iliac, acetabular or innominate bone
27147	Osteotomy, iliac, acetabular or innominate bone; with open reduction of hip

27151	Osteotomy, iliac, acetabular or innominate bone; with femoral osteotomy
27156	Osteotomy, iliac, acetabular or innominate bone; with femoral osteotomy and with open reduction of hip
27158	Osteotomy, pelvis, bilateral (eg, congenital malformation)
27161	Osteotomy, femoral neck (separate procedure)
27165	Osteotomy, intertrochanteric or subtrochanteric including internal or external fixation and/or cast
27170	Bone graft, femoral head, neck, intertrochanteric or subtrochanteric area (includes obtaining bone graft)
27175	Treatment of slipped femoral epiphysis; by traction, without reduction
27176	Treatment of slipped femoral epiphysis; by single or multiple pinning, in situ
27177	Open treatment of slipped femoral epiphysis; single or multiple pinning or bone graft (includes obtaining graft)
27178	Open treatment of slipped femoral epiphysis; closed manipulation with single or multiple pinning
27181	Open treatment of slipped femoral epiphysis; osteotomy and internal fixation
27185	Epiphyseal arrest by epiphysiodesis or stapling, greater trochanter of femur
27187	Prophylactic treatment (nailing, pinning, plating or wiring) with or without methylmethacrylate, femoral neck and proximal femur
27222	Closed treatment of acetabulum (hip socket) fracture(s); with manipulation, with or without skeletal traction
27226	Open treatment of posterior or anterior acetabular wall fracture, with internal fixation
27227	Open treatment of acetabular fracture(s) involving anterior or posterior (one) column, or a fracture running transversely across the acetabulum, with internal fixation
27228	Open treatment of acetabular fracture(s) involving anterior and posterior (two) columns, includes T-fracture and both column fracture with complete articular detachment, or single column or transverse fracture with associated acetabular wall fracture, with internal fixation"
27232	Closed treatment of femoral fracture, proximal end, neck; with manipulation, with or without skeletal traction

27236	Open treatment of femoral fracture, proximal end, neck, internal fixation or prosthetic replacement
27240	Closed treatment of intertrochanteric, peritrochanteric, or subtrochanteric femoral fracture; with manipulation, with or without skin or skeletal traction
27244	Treatment of intertrochanteric, peritrochanteric, or subtrochanteric femoral fracture; with plate/screw type implant, with or without cerclage
27245	Treatment of intertrochanteric, peritrochanteric, or subtrochanteric femoral fracture; with intramedullary implant, with or without interlocking screws and/or cerclage
27248	Open treatment of greater trochanteric fracture, includes internal fixation, when performed
27253	Open treatment of hip dislocation, traumatic, without internal fixation
27254	Open treatment of hip dislocation, traumatic, with acetabular wall and femoral head fracture, with or without internal or external fixation
27258	Open treatment of spontaneous hip dislocation (developmental, including congenital or pathological), replacement of femoral head in acetabulum (including tenotomy, etc)
27259	Open treatment of spontaneous hip dislocation (developmental, including congenital or pathological), replacement of femoral head in acetabulum (including tenotomy, etc); with femoral shaft shortening
27268	Closed treatment of femoral fracture, proximal end, head; with manipulation
27269	Open treatment of femoral fracture, proximal end, head, includes internal fixation, when performed
27280	Arthrodesis, open, sacroiliac joint, including obtaining bone graft, including instrumentation, when performed
27282	Arthrodesis, symphysis pubis (including obtaining graft)
27284	Arthrodesis, hip joint (including obtaining graft)
27286	Arthrodesis, hip joint (including obtaining graft); with subtrochanteric osteotomy
27290	Interpelviabdominal amputation (hindquarter amputation)
27295	Disarticulation of hip

27303	Incision, deep, with opening of bone cortex, femur or knee (eg, osteomyelitis or bone abscess)
27365	Radical resection of tumor, femur or knee
27445	Arthroplasty, knee, hinge prosthesis (eg, Walldius type)
27448	Osteotomy, femur, shaft or supracondylar; without fixation
27450	Osteotomy, femur, shaft or supracondylar; with fixation
27454	Osteotomy, multiple, with realignment on intramedullary rod, femoral shaft (eg, Sofield type procedure)
27455	Osteotomy, proximal tibia, including fibular excision or osteotomy (includes correction of genu varus [bowleg] or genu valgus [knock-knee]); before epiphyseal closure
27457	Osteotomy, proximal tibia, including fibular excision or osteotomy (includes correction of genu varus [bowleg] or genu valgus [knock-knee]); after epiphyseal closure
27465	Osteoplasty, femur; shortening (excluding 64876)
27466	Osteoplasty, femur; lengthening
27468	Osteoplasty, femur; combined, lengthening and shortening with femoral segment transfer
27470	Repair, nonunion or malunion, femur, distal to head and neck; without graft (eg, compression technique)
27472	Repair, nonunion or malunion, femur, distal to head and neck; with iliac or other autogenous bone graft (includes obtaining graft)
27486	Revision of total knee arthroplasty, with or without allograft; 1 component
27487	Revision of total knee arthroplasty, with or without allograft; femoral and entire tibial component
27488	Removal of prosthesis, including total knee prosthesis, methylmethacrylate with or without insertion of spacer, knee
27495	Prophylactic treatment (nailing, pinning, plating, or wiring) with or without methylmethacrylate, femur
27506	Open treatment of femoral shaft fracture, with or without external fixation, with insertion of intramedullary implant, with or without cerclage and/or locking screws
27507	Open treatment of femoral shaft fracture with plate/screws, with or without cerclage

27511	Open treatment of femoral supracondylar or transcondylar fracture without intercondylar extension, includes internal fixation, when performed
27513	Open treatment of femoral supracondylar or transcondylar fracture with intercondylar extension, includes internal fixation, when performed
27514	Open treatment of femoral fracture, distal end, medial or lateral condyle, includes internal fixation, when performed
27519	Open treatment of distal femoral epiphyseal separation, includes internal fixation, when performed
27535	Open treatment of tibial fracture, proximal (plateau); unicondylar, includes internal fixation, when performed
27536	Open treatment of tibial fracture, proximal (plateau); bicondylar, with or without internal fixation
27540	Open treatment of intercondylar spine(s) and/or tuberosity fracture(s) of the knee, includes internal fixation, when performed
27556	Open treatment of knee dislocation, includes internal fixation, when performed; without primary ligamentous repair or augmentation/reconstruction
27557	Open treatment of knee dislocation, includes internal fixation, when performed; with primary ligamentous repair
27558	Open treatment of knee dislocation, includes internal fixation, when performed; with primary ligamentous repair, with augmentation/reconstruction
27580	Arthrodesis, knee, any technique
27590	Amputation, thigh, through femur, any level
27591	Amputation, thigh, through femur, any level; immediate fitting technique including first cast
27592	Amputation, thigh, through femur, any level; open, circular (guillotine)
27596	Amputation, thigh, through femur, any level; re-amputation
27598	Disarticulation at knee
27645	Radical resection of tumor; tibia
27646	Radical resection of tumor; fibula
27703	Arthroplasty, ankle; revision, total ankle

27712	Osteotomy; multiple, with realignment on intramedullary rod (eg, Sofield type procedure)
27715	Osteoplasty, tibia and fibula, lengthening or shortening
27724	Repair of nonunion or malunion, tibia; with iliac or other autograft (includes obtaining graft)
27725	Repair of nonunion or malunion, tibia; by synostosis, with fibula, any method
27727	Repair of congenital pseudarthrosis, tibia
27880	Amputation, leg, through tibia and fibula
27881	Amputation, leg, through tibia and fibula; with immediate fitting technique including application of first cast
27882	Amputation, leg, through tibia and fibula; open, circular (guillotine)
27886	Amputation, leg, through tibia and fibula; re-amputation
27888	Amputation, ankle, through malleoli of tibia and fibula (eg, Syme, Pirogoff type procedures), with plastic closure and resection of nerves
28800	Amputation, foot; midtarsal (eg, Chopart type procedure)
31225	Maxillectomy; without orbital exenteration
31230	Maxillectomy; with orbital exenteration (en bloc)
31290	Nasal/sinus endoscopy, surgical, with repair of cerebrospinal fluid leak; ethmoid region
31291	Nasal/sinus endoscopy, surgical, with repair of cerebrospinal fluid leak; sphenoid region
31360	Laryngectomy; total, without radical neck dissection
31365	Laryngectomy; total, with radical neck dissection
31367	Laryngectomy; subtotal supraglottic, without radical neck dissection
31368	Laryngectomy; subtotal supraglottic, with radical neck dissection
31370	Partial laryngectomy (hemilaryngectomy); horizontal
31375	Partial laryngectomy (hemilaryngectomy); laterovertical
31380	Partial laryngectomy (hemilaryngectomy); anterovertical
31382	Partial laryngectomy (hemilaryngectomy); antero-latero-vertical
31390	Pharyngolaryngectomy, with radical neck dissection; without reconstruction
31395	Pharyngolaryngectomy, with radical neck dissection; with reconstruction

31725	Catheter aspiration (separate procedure); tracheobronchial with fiberscope, bedside
31760	Tracheoplasty; intrathoracic
31766	Carinal reconstruction
31770	Bronchoplasty; graft repair
31775	Bronchoplasty; excision stenosis and anastomosis
31780	Excision tracheal stenosis and anastomosis; cervical
31781	Excision tracheal stenosis and anastomosis; cervicothoracic
31786	Excision of tracheal tumor or carcinoma; thoracic
31800	Suture of tracheal wound or injury; cervical
31805	Suture of tracheal wound or injury; intrathoracic
32035	Thoracostomy; with rib resection for empyema
32036	Thoracostomy; with open flap drainage for empyema
32096	Thoracotomy, with diagnostic biopsy(ies) of lung infiltrate(s) (eg, wedge, incisional), unilateral
32097	Thoracotomy, with diagnostic biopsy(ies) of lung nodule(s) or mass(es) (eg, wedge, incisional), unilateral
32098	Thoracotomy, with biopsy(ies) of pleura
32100	Thoracotomy; with exploration
32110	Thoracotomy; with control of traumatic hemorrhage and/or repair of lung tear
32120	Thoracotomy; for postoperative complications
32124	Thoracotomy; with open intrapleural pneumonolysis
32140	Thoracotomy; with cyst(s) removal, includes pleural procedure when performed
32141	Thoracotomy; with resection-plication of bullae, includes any pleural procedure when performed
32150	Thoracotomy; with removal of intrapleural foreign body or fibrin deposit
32151	Thoracotomy; with removal of intrapulmonary foreign body
32200	Pneumonostomy, with open drainage of abscess or cyst
32215	Pleural scarification for repeat pneumothorax
32220	Decortication, pulmonary (separate procedure); total

32225	Decortication, pulmonary (separate procedure); partial
32310	Pleurectomy, parietal (separate procedure)
32320	Decortication and parietal pleurectomy
32440	Removal of lung, pneumonectomy
32442	Removal of lung, pneumonectomy; with resection of segment of trachea followed by broncho-tracheal anastomosis (sleeve pneumonectomy)
32445	Removal of lung, pneumonectomy; extrapleural
32445	Removal of lung extrapleural
32480	Removal of lung, other than pneumonectomy; single lobe (lobectomy)
32482	Removal of lung, other than pneumonectomy; 2 lobes (bilobectomy)
32484	Removal of lung, other than pneumonectomy; single segment (segmentectomy)
32488	Removal of lung, other than pneumonectomy; with all remaining lung following previous removal of a portion of lung (completion pneumonectomy)
32491	Removal of lung, other than pneumonectomy; with resection-plication of emphysematous lung(s) (bullous or non-bullous) for lung volume reduction, sternal split or transthoracic approach, includes any pleural procedure, when performed
32501	Resection and repair of portion of bronchus (bronchoplasty) when performed at time of lobectomy or segmentectomy (List separately in addition to code for primary procedure)
32503	Resection of apical lung tumor (eg, Pancoast tumor), including chest wall resection, rib(s) resection(s), neurovascular dissection, when performed; without chest wall reconstruction(s)
32504	Resection of apical lung tumor (eg, Pancoast tumor), including chest wall resection, rib(s) resection(s), neurovascular dissection, when performed; with chest wall reconstruction
32505	Thoracotomy; with therapeutic wedge resection (eg, mass, nodule), initial
32506	Thoracotomy; with therapeutic wedge resection (eg, mass or nodule), each additional resection, ipsilateral (List separately in addition to code for primary procedure)
32507	Thoracotomy; with diagnostic wedge resection followed by anatomic lung resection (List separately in addition to code for primary procedure)

32540	Extrapleural enucleation of empyema (empyemectomy)
32650	Thoracoscopy, surgical; with pleurodesis (eg, mechanical or chemical)
32651	Thoracoscopy, surgical; with partial pulmonary decortication
32652	Thoracoscopy, surgical; with total pulmonary decortication, including intrapleural pneumonolysis
32653	Thoracoscopy, surgical; with removal of intrapleural foreign body or fibrin deposit
32654	Thoracoscopy, surgical; with control of traumatic hemorrhage
32655	Thoracoscopy, surgical; with resection-plication of bullae, includes any pleural procedure when performed
32656	Thoracoscopy, surgical; with parietal pleurectomy
32658	Thoracoscopy, surgical; with removal of clot or foreign body from pericardial sac
32659	Thoracoscopy, surgical; with creation of pericardial window or partial resection of pericardial sac for drainage
32661	Thoracoscopy, surgical; with excision of pericardial cyst, tumor, or mass
32662	Thoracoscopy, surgical; with excision of mediastinal cyst, tumor, or mass
32663	Thoracoscopy, surgical; with lobectomy (single lobe)
32664	Thoracoscopy, surgical; with thoracic sympathectomy
32665	Thoracoscopy, surgical; with esophagomyotomy (Heller type)
32666	Thoracoscopy, surgical; with therapeutic wedge resection (eg, mass, nodule), initial unilateral
32667	Thoracoscopy, surgical; with therapeutic wedge resection (eg, mass or nodule), each additional resection, ipsilateral (List separately in addition to code for primary procedure)
32668	Thoracoscopy, surgical; with diagnostic wedge resection followed by anatomic lung resection (List separately in addition to code for primary procedure)
32669	Thoracoscopy, surgical; with removal of a single lung segment (segmentectomy)
32670	Thoracoscopy, surgical; with removal of two lobes (bilobectomy)
32671	Thoracoscopy, surgical; with removal of lung (pneumonectomy)

32672	Thoracoscopy, surgical; with resection-plication for emphysematous lung (bullous or non-bullous) for lung volume reduction (LVRS), unilateral includes any pleural procedure, when performed
32673	Thoracoscopy, surgical; with resection of thymus, unilateral or bilateral
32673	Thoracoscopy w/thymus resect
32674	Thoracoscopy, surgical; with mediastinal and regional lymphadenectomy (List separately in addition to code for primary procedure)
32800	Repair lung hernia through chest wall
32810	Closure of chest wall following open flap drainage for empyema (Clagett type procedure)
32815	Open closure of major bronchial fistula
32820	Major reconstruction, chest wall (posttraumatic)
32850	Donor pneumonectomy(s) (including cold preservation), from cadaver donor
32851	Lung transplant, single; without cardiopulmonary bypass
32852	Lung transplant, single; with cardiopulmonary bypass
32853	Lung transplant, double (bilateral sequential or en bloc); without cardiopulmonary bypass
32854	Lung transplant, double (bilateral sequential or en bloc); with cardiopulmonary bypass
32855	Backbench standard preparation of cadaver donor lung allograft prior to transplantation, including dissection of allograft from surrounding soft tissues to prepare pulmonary venous/atrial cuff, pulmonary artery, and bronchus; unilateral
32856	Backbench standard preparation of cadaver donor lung allograft prior to transplantation, including dissection of allograft from surrounding soft tissues to prepare pulmonary venous/atrial cuff, pulmonary artery, and bronchus; bilateral
32900	Resection of ribs, extrapleural, all stages
32905	Thoracoplasty, Schede type or extrapleural (all stages)
32906	Thoracoplasty, Schede type or extrapleural (all stages); with closure of bronchopleural fistula
32940	Pneumonolysis, extraperiosteal, including filling or packing procedures
32997	Total lung lavage (unilateral)

33017	Pericardial drainage with insertion of indwelling catheter, percutaneous, including fluoroscopy and/or ultrasound guidance, when performed; 6 years and older without congenital cardiac anomaly
33018	Pericardial drainage with insertion of indwelling catheter, percutaneous, including fluoroscopy and/or ultrasound guidance, when performed; birth through 5 years of age or any age with congenital cardiac anomaly
33019	Pericardial drainage with insertion of indwelling catheter, percutaneous, including CT guidance
33020	Pericardiotomy for removal of clot or foreign body (primary procedure)
33025	Creation of pericardial window or partial resection for drainage
33030	Pericardiectomy, subtotal or complete; without cardiopulmonary bypass
33031	Pericardiectomy, subtotal or complete; with cardiopulmonary bypass
33050	Resection of pericardial cyst or tumor
33120	Excision of intracardiac tumor, resection with cardiopulmonary bypass
33130	Resection of external cardiac tumor
33140	Transmyocardial laser revascularization, by thoracotomy; (separate procedure)
33141	Transmyocardial laser revascularization, by thoracotomy; performed at the time of other open cardiac procedure(s) (List separately in addition to code for primary procedure)
33202	Insertion of epicardial electrode(s); open incision (eg, thoracotomy, median sternotomy, subxiphoid approach)
33203	Insertion of epicardial electrode(s); endoscopic approach (eg, thoracoscopy, pericardioscopy)
33236	Removal of permanent epicardial pacemaker and electrodes by thoracotomy; single lead system, atrial or ventricular
33237	Removal of permanent epicardial pacemaker and electrodes by thoracotomy; dual lead system
33238	Removal of permanent transvenous electrode(s) by thoracotomy
33243	Removal of single or dual chamber implantable defibrillator electrode(s); by thoracotomy

33250	Operative ablation of supraventricular arrhythmogenic focus or pathway (eg, Wolff-Parkinson-White, atrioventricular node re-entry), tract(s) and/or focus (foci); without cardiopulmonary bypass
33251	Operative ablation of supraventricular arrhythmogenic focus or pathway (eg, Wolff-Parkinson-White, atrioventricular node re-entry), tract(s) and/or focus (foci); with cardiopulmonary bypass
33254	Operative tissue ablation and reconstruction of atria, limited (eg, modified maze procedure)
33255	Operative tissue ablation and reconstruction of atria, extensive (eg, maze procedure); without cardiopulmonary bypass
33257	Operative tissue ablation and reconstruction of atria, performed at the time of other cardiac procedure(s), limited (eg, modified maze procedure) (List separately in addition to code for primary procedure)
33258	Operative tissue ablation and reconstruction of atria, performed at the time of other cardiac procedure(s), extensive (eg, maze procedure), without cardiopulmonary bypass (List separately in addition to code for primary procedure)
33259	Operative tissue ablation and reconstruction of atria, performed at the time of other cardiac procedure(s), extensive (eg, maze procedure), with cardiopulmonary bypass (List separately in addition to code for primary procedure)
33261	Operative ablation of ventricular arrhythmogenic focus with cardiopulmonary bypass
33265	Endoscopy, surgical; operative tissue ablation and reconstruction of atria, limited (eg, modified maze procedure), without cardiopulmonary bypass
33266	Endoscopy, surgical; operative tissue ablation and reconstruction of atria, extensive (eg, maze procedure), without cardiopulmonary bypass
33267	Exclusion of left atrial appendage, open, any method (eg, excision, isolation via stapling, oversewing, ligation, plication, clip)
33268	Exclusion of left atrial appendage, open, performed at the time of other sternotomy or thoracotomy procedure(s), any method (eg, excision, isolation via stapling, oversewing, ligation, plication, clip) (List separately in addition to code for primary procedure)"

33269	Exclusion of left atrial appendage, thoracoscopic, any method (eg, excision, isolation via stapling, oversewing, ligation, plication, clip)
33300	Repair of cardiac wound; without bypass
33305	Repair of cardiac wound; with cardiopulmonary bypass
33310	Cardiotomy, exploratory (includes removal of foreign body, atrial or ventricular thrombus); without bypass
33315	Cardiotomy, exploratory (includes removal of foreign body, atrial or ventricular thrombus); with cardiopulmonary bypass
33320	Suture repair of aorta or great vessels; without shunt or cardiopulmonary bypass
33321	Suture repair of aorta or great vessels; with shunt bypass
33322	Suture repair of aorta or great vessels; with cardiopulmonary bypass
33330	Insertion of graft, aorta or great vessels; without shunt, or cardiopulmonary bypass
33335	Insertion of graft, aorta or great vessels; with cardiopulmonary bypass
33340	Percutaneous transcatheter closure of the left atrial appendage with endocardial implant, including fluoroscopy, transseptal puncture, catheter placement(s), left atrial angiography, left atrial appendage angiography, when performed, and radiological supervision and interpretation"
33361	Transcatheter aortic valve replacement (TAVR/TAVI) with prosthetic valve; percutaneous femoral artery approach
33362	Transcatheter aortic valve replacement (TAVR/TAVI) with prosthetic valve; open femoral artery approach
33363	Transcatheter aortic valve replacement (TAVR/TAVI) with prosthetic valve; open axillary artery approach
33364	Transcatheter aortic valve replacement (TAVR/TAVI) with prosthetic valve; open iliac artery approach
33365	Transcatheter aortic valve replacement (TAVR/TAVI) with prosthetic valve; transaortic approach (eg, median sternotomy, mediastinotomy)

33366	Transcatheter aortic valve replacement (TAVR/TAVI) with prosthetic valve; transapical exposure (eg, left thoracotomy)
33367	Transcatheter aortic valve replacement (TAVR/TAVI) with prosthetic valve; cardiopulmonary bypass support with percutaneous peripheral arterial and venous cannulation (eg, femoral vessels) (List separately in addition to code for primary procedure)
33368	Transcatheter aortic valve replacement (TAVR/TAVI) with prosthetic valve; cardiopulmonary bypass support with open peripheral arterial and venous cannulation (eg, femoral, iliac, axillary vessels) (List separately in addition to code for primary procedure)"
33369	Transcatheter aortic valve replacement (TAVR/TAVI) with prosthetic valve; cardiopulmonary bypass support with central arterial and venous cannulation (eg, aorta, right atrium, pulmonary artery) (List separately in addition to code for primary procedure)
33390	Valvuloplasty, aortic valve, open, with cardiopulmonary bypass; simple (ie, valvotomy, debridement, debulking, and/or simple commissural resuspension)
33390	Valvuloplasty aortic valve
33391	Valvuloplasty, aortic valve, open, with cardiopulmonary bypass; complex (eg, leaflet extension, leaflet resection, leaflet reconstruction, or annuloplasty)
33404	Construction of apical-aortic conduit
33405	Replacement, aortic valve, open, with cardiopulmonary bypass; with prosthetic valve other than homograft or stentless valve
33406	Replacement, aortic valve, open, with cardiopulmonary bypass; with allograft valve (freehand)
33410	Replacement, aortic valve, open, with cardiopulmonary bypass; with stentless tissue valve
33411	Replacement, aortic valve; with aortic annulus enlargement, noncoronary sinus
33412	Replacement, aortic valve; with transventricular aortic annulus enlargement (Konno procedure)
33413	Replacement, aortic valve; by translocation of autologous pulmonary valve with allograft replacement of pulmonary valve (Ross procedure)
33414	Repair of left ventricular outflow tract obstruction by patch enlargement of the outflow tract
33415	Resection or incision of subvalvular tissue for discrete subvalvular aortic stenosis

33416	Ventriculomyotomy (-myectomy) for idiopathic hypertrophic subaortic stenosis (eg, asymmetric septal hypertrophy)
33417	Aortoplasty (gusset) for supravalvular stenosis
33418	Transcatheter mitral valve repair, percutaneous approach, including transseptal puncture when performed; initial prosthesis
33420	Valvotomy, mitral valve; closed heart
33422	Valvotomy, mitral valve; open heart, with cardiopulmonary bypass
33425	Valvuloplasty, mitral valve, with cardiopulmonary bypass
33426	Valvuloplasty, mitral valve, with cardiopulmonary bypass; with prosthetic ring
33427	Valvuloplasty, mitral valve, with cardiopulmonary bypass; radical reconstruction, with or without ring
33430	Replacement, mitral valve, with cardiopulmonary bypass
33440	Replacement, aortic valve; by translocation of autologous pulmonary valve and transventricular aortic annulus enlargement of the left ventricular outflow tract with valved conduit replacement of pulmonary valve (Ross-Konno procedure)
33460	Valvectomy, tricuspid valve, with cardiopulmonary bypass
33463	Valvuloplasty, tricuspid valve; without ring insertion
33464	Valvuloplasty, tricuspid valve; with ring insertion
33465	Replacement, tricuspid valve, with cardiopulmonary bypass
33468	Tricuspid valve repositioning and plication for Ebstein anomaly
33471	Valvotomy, pulmonary valve, closed heart, via pulmonary artery
33474	Valvotomy, pulmonary valve, open heart, with cardiopulmonary bypass
33475	Replacement, pulmonary valve
33476	Right ventricular resection for infundibular stenosis, with or without commissurotomy
33477	Transcatheter pulmonary valve implantation, percutaneous approach, including pre-stenting of the valve delivery site, when performed
33478	Outflow tract augmentation (gusset), with or without commissurotomy or infundibular resection

33496	Repair of non-structural prosthetic valve dysfunction with cardiopulmonary bypass (separate procedure)
33500	Repair of coronary arteriovenous or arteriocardiac chamber fistula; with cardiopulmonary bypass
33501	Repair of coronary arteriovenous or arteriocardiac chamber fistula; without cardiopulmonary bypass
33502	Repair of anomalous coronary artery from pulmonary artery origin; by ligation
33503	Repair of anomalous coronary artery from pulmonary artery origin; by graft, without cardiopulmonary bypass
33504	Repair of anomalous coronary artery from pulmonary artery origin; by graft, with cardiopulmonary bypass
33505	Repair of anomalous coronary artery from pulmonary artery origin; with construction of intrapulmonary artery tunnel (Takeuchi procedure)
33506	Repair of anomalous coronary artery from pulmonary artery origin; by translocation from pulmonary artery to aorta
33507	Repair of anomalous (eg, intramural) aortic origin of coronary artery by unroofing or translocation
33509	Harvest of upper extremity artery, 1 segment, for coronary artery bypass procedure, endoscopic
33510	Coronary artery bypass, vein only; single coronary venous graft
33511	Coronary artery bypass, vein only; 2 coronary venous grafts
33512	Coronary artery bypass, vein only; 3 coronary venous grafts
33513	Coronary artery bypass, vein only; 4 coronary venous grafts
33514	Coronary artery bypass, vein only; 5 coronary venous grafts
33516	Coronary artery bypass, vein only; 6 or more coronary venous grafts
33517	Coronary artery bypass, using venous graft(s) and arterial graft(s); single vein graft (List separately in addition to code for primary procedure)
33518	Coronary artery bypass, using venous graft(s) and arterial graft(s); 2 venous grafts (List separately in addition to code for primary procedure)

33519	Coronary artery bypass, using venous graft(s) and arterial graft(s); 3 venous grafts (List separately in addition to code for primary procedure)
33521	Coronary artery bypass, using venous graft(s) and arterial graft(s); 4 venous grafts (List separately in addition to code for primary procedure)
33522	Coronary artery bypass, using venous graft(s) and arterial graft(s); 5 venous grafts (List separately in addition to code for primary procedure)
33523	Coronary artery bypass, using venous graft(s) and arterial graft(s); 6 or more venous grafts (List separately in addition to code for primary procedure)
33530	Reoperation, coronary artery bypass procedure or valve procedure, more than 1 month after original operation (List separately in addition to code for primary procedure)
33533	Coronary artery bypass, using arterial graft(s); single arterial graft
33534	Coronary artery bypass, using arterial graft(s); 2 coronary arterial grafts
33535	Coronary artery bypass, using arterial graft(s); 3 coronary arterial grafts
33536	Coronary artery bypass, using arterial graft(s); 4 or more coronary arterial grafts
33542	Myocardial resection (eg, ventricular aneurysmectomy)
33545	Repair of postinfarction ventricular septal defect, with or without myocardial resection
33548	Surgical ventricular restoration procedure, includes prosthetic patch, when performed (eg, ventricular remodeling, SVR, SAVER, Dor procedures)
33572	Coronary endarterectomy, open, any method, of left anterior descending, circumflex, or right coronary artery performed in conjunction with coronary artery bypass graft procedure, each vessel (List separately in addition to primary procedure)
33600	Closure of atrioventricular valve (mitral or tricuspid) by suture or patch
33602	Closure of semilunar valve (aortic or pulmonary) by suture or patch
33606	Anastomosis of pulmonary artery to aorta (Damus-Kaye-Stansel procedure)
33608	Repair of complex cardiac anomaly other than pulmonary atresia with ventricular septal defect by construction or replacement of conduit from right or left ventricle to pulmonary artery

33610	Repair of complex cardiac anomalies (eg, single ventricle with subaortic obstruction) by surgical enlargement of ventricular septal defect
33611	Repair of double outlet right ventricle with intraventricular tunnel repair
33612	Repair of double outlet right ventricle with intraventricular tunnel repair; with repair of right ventricular outflow tract obstruction
33615	Repair of complex cardiac anomalies (eg, tricuspid atresia) by closure of atrial septal defect and anastomosis of atria or vena cava to pulmonary artery (simple Fontan procedure)
33617	Repair of complex cardiac anomalies (eg, single ventricle) by modified Fontan procedure
33619	Repair of single ventricle with aortic outflow obstruction and aortic arch hypoplasia (hypoplastic left heart syndrome) (eg, Norwood procedure)
33620	Application of right and left pulmonary artery bands (eg, hybrid approach stage 1)
33621	Transthoracic insertion of catheter for stent placement with catheter removal and closure (eg, hybrid approach stage 1)
33622	Reconstruction of complex cardiac anomaly (eg, single ventricle or hypoplastic left heart) with palliation of single ventricle with aortic outflow obstruction and aortic arch hypoplasia, creation of cavopulmonary anastomosis, and removal of right and left pulmonary bands (eg, hybrid approach stage 2, Norwood, bidirectional Glenn, pulmonary artery debanding)
33641	Repair atrial septal defect, secundum, with cardiopulmonary bypass, with or without patch
33645	Direct or patch closure, sinus venosus, with or without anomalous pulmonary venous drainage
33647	Repair of atrial septal defect and ventricular septal defect, with direct or patch closure
33660	Repair of incomplete or partial atrioventricular canal (ostium primum atrial septal defect), with or without atrioventricular valve repair
33665	Repair of intermediate or transitional atrioventricular canal, with or without atrioventricular valve repair
33670	Repair of complete atrioventricular canal, with or without prosthetic valve
33675	Closure of multiple ventricular septal defects

33676	Closure of multiple ventricular septal defects; with pulmonary valvotomy or infundibular resection (acyanotic)
33677	Closure of multiple ventricular septal defects; with removal of pulmonary artery band, with or without gusset
33681	Closure of single ventricular septal defect, with or without patch
33684	Closure of single ventricular septal defect, with or without patch; with pulmonary valvotomy or infundibular resection (acyanotic)
33688	Closure of single ventricular septal defect, with or without patch; with removal of pulmonary artery band, with or without gusset
33690	Banding of pulmonary artery
33692	Complete repair tetralogy of Fallot without pulmonary atresia
33694	Complete repair tetralogy of Fallot without pulmonary atresia; with transannular patch
33697	Complete repair tetralogy of Fallot with pulmonary atresia including construction of conduit from right ventricle to pulmonary artery and closure of ventricular septal defect
33702	Repair sinus of Valsalva fistula, with cardiopulmonary bypass
33710	Repair sinus of Valsalva fistula, with cardiopulmonary bypass; with repair of ventricular septal defect
33720	Repair sinus of Valsalva aneurysm, with cardiopulmonary bypass
33724	Repair of isolated partial anomalous pulmonary venous return (eg, Scimitar Syndrome)
33726	Repair of pulmonary venous stenosis
33730	Complete repair of anomalous pulmonary venous return (supracardiac, intracardiac, or infracardiac types)
33732	Repair of cor triatriatum or supra-valvular mitral ring by resection of left atrial membrane
33735	Atrial septectomy or septostomy; closed heart (Blalock-Hanlon type operation)
33736	Atrial septectomy or septostomy; open heart with cardiopulmonary bypass

33741	Transcatheter atrial septostomy (TAS) for congenital cardiac anomalies to create effective atrial flow, including all imaging guidance by the proceduralist, when performed, any method (eg, Rashkind, Sang-Park, balloon, cutting balloon, blade)
33745	Transcatheter intracardiac shunt (TIS) creation by stent placement for congenital cardiac anomalies to establish effective intracardiac flow, including all imaging guidance by the proceduralist, when performed, left and right heart diagnostic cardiac catheterization for congenital cardiac anomalies, and target zone angioplasty, when performed (eg, atrial septum, Fontan fenestration, right ventricular outflow tract, Mustard/Senning/Warden baffles); initial intracardiac shunt
33746	Transcatheter intracardiac shunt (TIS) creation by stent placement for congenital cardiac anomalies to establish effective intracardiac flow, including all imaging guidance by the proceduralist, when performed, left and right heart diagnostic cardiac catheterization for congenital cardiac anomalies, and target zone angioplasty, when performed (eg, atrial septum, Fontan fenestration, right ventricular outflow tract, Mustard/Senning/Warden baffles); each additional intracardiac shunt location (List separately in addition to code for primary procedure)
33750	Shunt; subclavian to pulmonary artery (Blalock-Taussig type operation)
33750	Shunt; subclavian to pulmonary artery (Blalock-Taussig type operation)
33755	Shunt; ascending aorta to pulmonary artery (Waterston type operation)
33762	Shunt; descending aorta to pulmonary artery (Potts-Smith type operation)
33764	Shunt; central, with prosthetic graft
33766	Shunt; superior vena cava to pulmonary artery for flow to 1 lung (classical Glenn procedure)
33767	Shunt; superior vena cava to pulmonary artery for flow to both lungs (bidirectional Glenn procedure)
33768	Anastomosis, cavopulmonary, second superior vena cava (List separately in addition to primary procedure)
33770	Repair of transposition of the great arteries with ventricular septal defect and subpulmonary stenosis; without surgical enlargement of ventricular septal defect

33771	Repair of transposition of the great arteries with ventricular septal defect and subpulmonary stenosis; with surgical enlargement of ventricular septal defect
33774	Repair of transposition of the great arteries, atrial baffle procedure (eg, Mustard or Senning type) with cardiopulmonary bypass
33775	Repair of transposition of the great arteries, atrial baffle procedure (eg, Mustard or Senning type) with cardiopulmonary bypass; with removal of pulmonary band
33776	Repair of transposition of the great arteries, atrial baffle procedure (eg, Mustard or Senning type) with cardiopulmonary bypass; with closure of ventricular septal defect
33777	Repair of transposition of the great arteries, atrial baffle procedure (eg, Mustard or Senning type) with cardiopulmonary bypass; with repair of subpulmonic obstruction
33778	Repair of transposition of the great arteries, aortic pulmonary artery reconstruction (eg, Jatene type)
33779	Repair of transposition of the great arteries, aortic pulmonary artery reconstruction (eg, Jatene type); with removal of pulmonary band
33780	Repair of transposition of the great arteries, aortic pulmonary artery reconstruction (eg, Jatene type); with closure of ventricular septal defect
33781	Repair of transposition of the great arteries, aortic pulmonary artery reconstruction (eg, Jatene type); with repair of subpulmonic obstruction
33782	Aortic root translocation with ventricular septal defect and pulmonary stenosis repair (ie, Nikaidoh procedure); without coronary ostium reimplantation
33783	Aortic root translocation with ventricular septal defect and pulmonary stenosis repair (ie, Nikaidoh procedure); with reimplantation of 1 or both coronary ostia
33786	Total repair, truncus arteriosus (Rastelli type operation)
33788	Reimplantation of an anomalous pulmonary artery
33800	Aortic suspension (aortopexy) for tracheal decompression (eg, for tracheomalacia) (separate procedure)
33802	Division of aberrant vessel (vascular ring)

33803	Division of aberrant vessel (vascular ring); with reanastomosis
33813	Obliteration of aortopulmonary septal defect; without cardiopulmonary bypass
33814	Obliteration of aortopulmonary septal defect; with cardiopulmonary bypass
33820	Repair of patent ductus arteriosus; by ligation
33822	Repair of patent ductus arteriosus; by division, younger than 18 years
33824	Repair of patent ductus arteriosus; by division, 18 years and older
33840	Excision of coarctation of aorta, with or without associated patent ductus arteriosus; with direct anastomosis
33845	Excision of coarctation of aorta, with or without associated patent ductus arteriosus; with graft
33851	Excision of coarctation of aorta, with or without associated patent ductus arteriosus; repair using either left subclavian artery or prosthetic material as gusset for enlargement
33852	Repair of hypoplastic or interrupted aortic arch using autogenous or prosthetic material; without cardiopulmonary bypass
33853	Repair of hypoplastic or interrupted aortic arch using autogenous or prosthetic material; with cardiopulmonary bypass
33858	Ascending aorta graft, with cardiopulmonary bypass, includes valve suspension, when performed; for aortic dissection
33859	Ascending aorta graft, with cardiopulmonary bypass, includes valve suspension, when performed; for aortic disease other than dissection (eg, aneurysm)
33863	Ascending aorta graft, with cardiopulmonary bypass, with aortic root replacement using valved conduit and coronary reconstruction (eg, Bentall)
33864	Ascending aorta graft, with cardiopulmonary bypass with valve suspension, with coronary reconstruction and valve-sparing aortic root remodeling (eg, David Procedure, Yacoub Procedure)
33871	Transverse aortic arch graft, with cardiopulmonary bypass, with profound hypothermia, total circulatory arrest and isolated cerebral perfusion with reimplantation of arch vessel(s) (eg, island pedicle or individual arch vessel reimplantation)

33875	Descending thoracic aorta graft, with or without bypass
33877	Repair of thoracoabdominal aortic aneurysm with graft, with or without cardiopulmonary bypass
33880	Endovascular repair of descending thoracic aorta (eg, aneurysm, pseudoaneurysm, dissection, penetrating ulcer, intramural hematoma, or traumatic disruption); involving coverage of left subclavian artery origin, initial endoprosthesis plus descending thoracic aortic extension(s), if required, to level of celiac artery origin"
33881	Endovascular repair of descending thoracic aorta (eg, aneurysm, pseudoaneurysm, dissection, penetrating ulcer, intramural hematoma, or traumatic disruption); not involving coverage of left subclavian artery origin, initial endoprosthesis plus descending thoracic aortic extension(s), if required, to level of celiac artery origin"
33883	Placement of proximal extension prosthesis for endovascular repair of descending thoracic aorta (eg, aneurysm, pseudoaneurysm, dissection, penetrating ulcer, intramural hematoma, or traumatic disruption); initial extension
33884	Placement of proximal extension prosthesis for endovascular repair of descending thoracic aorta (eg, aneurysm, pseudoaneurysm, dissection, penetrating ulcer, intramural hematoma, or traumatic disruption); each additional proximal extension (List separately in addition to code for primary procedure)"
33886	Placement of distal extension prosthesis(s) delayed after endovascular repair of descending thoracic aorta
33889	Open subclavian to carotid artery transposition performed in conjunction with endovascular repair of descending thoracic aorta, by neck incision, unilateral
33891	Bypass graft, with other than vein, transcervical retropharyngeal carotid-carotid, performed in conjunction with endovascular repair of descending thoracic aorta, by neck incision
33894	Endovascular stent repair of coarctation of the ascending, transverse, or descending thoracic or abdominal aorta, involving stent placement; across major side branches
33895	Endovascular stent repair of coarctation of the ascending, transverse, or descending thoracic or abdominal aorta, involving stent placement; not crossing major side branches

33897	Percutaneous transluminal angioplasty of native or recurrent coarctation of the aorta
33910	Pulmonary artery embolectomy; with cardiopulmonary bypass
33915	Pulmonary artery embolectomy; without cardiopulmonary bypass
33916	Pulmonary endarterectomy, with or without embolectomy, with cardiopulmonary bypass
33917	Repair of pulmonary artery stenosis by reconstruction with patch or graft
33920	Repair of pulmonary atresia with ventricular septal defect, by construction or replacement of conduit from right or left ventricle to pulmonary artery
33922	Transection of pulmonary artery with cardiopulmonary bypass
33924	Ligation and takedown of a systemic-to-pulmonary artery shunt, performed in conjunction with a congenital heart procedure (List separately in addition to code for primary procedure)
33925	Repair of pulmonary artery arborization anomalies by unifocalization; without cardiopulmonary bypass
33926	Repair of pulmonary artery arborization anomalies by unifocalization; with cardiopulmonary bypass
33927	Implantation of a total replacement heart system (artificial heart) with recipient cardiectomy
33928	Removal and replacement of total replacement heart system (artificial heart)
33929	Removal of a total replacement heart system (artificial heart) for heart transplantation (List separately in addition to code for primary procedure)
33930	Donor cardiectomy-pneumonectomy (including cold preservation)
33933	Backbench standard preparation of cadaver donor heart/lung allograft prior to transplantation, including dissection of allograft from surrounding soft tissues to prepare aorta, superior vena cava, inferior vena cava, and trachea for implantation
33935	Heart-lung transplant with recipient cardiectomy-pneumonectomy
33940	Donor cardiectomy (including cold preservation)
33944	Backbench standard preparation of cadaver donor heart allograft prior to transplantation, including dissection of allograft from surrounding soft tissues to prepare aorta, superior vena cava, inferior vena cava, pulmonary artery, and left atrium for implantation"

33945	Heart transplant, with or without recipient cardiectomy
33946	Extracorporeal membrane oxygenation (ECMO)/extracorporeal life support (ECLS) provided by physician; initiation, veno-venous
33947	Extracorporeal membrane oxygenation (ECMO)/extracorporeal life support (ECLS) provided by physician; initiation, veno-arterial
33948	Extracorporeal membrane oxygenation (ECMO)/extracorporeal life support (ECLS) provided by physician; daily management, each day, veno-venous
33949	Extracorporeal membrane oxygenation (ECMO)/extracorporeal life support (ECLS) provided by physician; daily management, each day, veno-arterial
33951	Extracorporeal membrane oxygenation (ECMO)/extracorporeal life support (ECLS) provided by physician; insertion of peripheral (arterial and/or venous) cannula(e), percutaneous, birth through 5 years of age (includes fluoroscopic guidance, when performed)
33952	Extracorporeal membrane oxygenation (ECMO)/extracorporeal life support (ECLS) provided by physician; insertion of peripheral (arterial and/or venous) cannula(e), percutaneous, 6 years and older (includes fluoroscopic guidance, when performed)
33953	Extracorporeal membrane oxygenation (ECMO)/extracorporeal life support (ECLS) provided by physician; insertion of peripheral (arterial and/or venous) cannula(e), open, birth through 5 years of age
33954	Extracorporeal membrane oxygenation (ECMO)/extracorporeal life support (ECLS) provided by physician; insertion of peripheral (arterial and/or venous) cannula(e), open, 6 years and older
33955	Extracorporeal membrane oxygenation (ECMO)/extracorporeal life support (ECLS) provided by physician; insertion of central cannula(e) by sternotomy or thoracotomy, birth through 5 years of age
33956	Extracorporeal membrane oxygenation (ECMO)/extracorporeal life support (ECLS) provided by physician; insertion of central cannula(e) by sternotomy or thoracotomy, 6 years and older

33957	Extracorporeal membrane oxygenation (ECMO)/extracorporeal life support (ECLS) provided by physician; reposition peripheral (arterial and/or venous) cannula(e), percutaneous, birth through 5 years of age (includes fluoroscopic guidance, when performed)
33958	Extracorporeal membrane oxygenation (ECMO)/extracorporeal life support (ECLS) provided by physician; reposition peripheral (arterial and/or venous) cannula(e), percutaneous, 6 years and older (includes fluoroscopic guidance, when performed)
33959	Extracorporeal membrane oxygenation (ECMO)/extracorporeal life support (ECLS) provided by physician; reposition peripheral (arterial and/or venous) cannula(e), open, birth through 5 years of age (includes fluoroscopic guidance, when performed)
33962	Extracorporeal membrane oxygenation (ECMO)/extracorporeal life support (ECLS) provided by physician; reposition peripheral (arterial and/or venous) cannula(e), open, 6 years and older (includes fluoroscopic guidance, when performed)
33963	Extracorporeal membrane oxygenation (ECMO)/extracorporeal life support (ECLS) provided by physician; reposition of central cannula(e) by sternotomy or thoracotomy, birth through 5 years of age (includes fluoroscopic guidance, when performed)
33964	Extracorporeal membrane oxygenation (ECMO)/extracorporeal life support (ECLS) provided by physician; reposition central cannula(e) by sternotomy or thoracotomy, 6 years and older (includes fluoroscopic guidance, when performed)
33965	Extracorporeal membrane oxygenation (ECMO)/extracorporeal life support (ECLS) provided by physician; removal of peripheral (arterial and/or venous) cannula(e), percutaneous, birth through 5 years of age
33966	Extracorporeal membrane oxygenation (ECMO)/extracorporeal life support (ECLS) provided by physician; removal of peripheral (arterial and/or venous) cannula(e), percutaneous, 6 years and older
33967	Insertion of intra-aortic balloon assist device, percutaneous
33968	Removal of intra-aortic balloon assist device, percutaneous

33969	Extracorporeal membrane oxygenation (ECMO)/extracorporeal life support (ECLS) provided by physician; removal of peripheral (arterial and/or venous) cannula(e), open, birth through 5 years of age
33970	Insertion of intra-aortic balloon assist device through the femoral artery, open approach
33971	Removal of intra-aortic balloon assist device including repair of femoral artery, with or without graft
33973	Insertion of intra-aortic balloon assist device through the ascending aorta
33974	Removal of intra-aortic balloon assist device from the ascending aorta, including repair of the ascending aorta, with or without graft
33975	Insertion of ventricular assist device; extracorporeal, single ventricle
33976	Insertion of ventricular assist device; extracorporeal, biventricular
33977	Removal of ventricular assist device; extracorporeal, single ventricle
33978	Removal of ventricular assist device; extracorporeal, biventricular
33979	Insertion of ventricular assist device, implantable intracorporeal, single ventricle
33980	Removal of ventricular assist device, implantable intracorporeal, single ventricle
33981	Replacement of extracorporeal ventricular assist device, single or biventricular, pump(s), single or each pump
33982	Replacement of ventricular assist device pump(s); implantable intracorporeal, single ventricle, without cardiopulmonary bypass
33983	Replacement of ventricular assist device pump(s); implantable intracorporeal, single ventricle, with cardiopulmonary bypass
33984	Extracorporeal membrane oxygenation (ECMO)/extracorporeal life support (ECLS) provided by physician; removal of peripheral (arterial and/or venous) cannula(e), open, 6 years and older
33985	Extracorporeal membrane oxygenation (ECMO)/extracorporeal life support (ECLS) provided by physician; removal of central cannula(e) by sternotomy or thoracotomy, birth through 5 years of age

33986	Extracorporeal membrane oxygenation (ECMO)/extracorporeal life support (ECLS) provided by physician; removal of central cannula(e) by sternotomy or thoracotomy, 6 years and older
33987	Arterial exposure with creation of graft conduit (eg, chimney graft) to facilitate arterial perfusion for ECMO/ECLS (List separately in addition to code for primary procedure)
33988	Insertion of left heart vent by thoracic incision (eg, sternotomy, thoracotomy) for ECMO/ECLS
33989	Removal of left heart vent by thoracic incision (eg, sternotomy, thoracotomy) for ECMO/ECLS
33990	Insertion of ventricular assist device, percutaneous, including radiological supervision and interpretation; left heart, arterial access only
33991	Insertion of ventricular assist device, percutaneous, including radiological supervision and interpretation; left heart, both arterial and venous access, with transeptal puncture
33992	Removal of percutaneous left heart ventricular assist device, arterial or arterial and venous cannula(s), at separate and distinct session from insertion
33993	Repositioning of percutaneous right or left heart ventricular assist device with imaging guidance at separate and distinct session from insertion
33995	Insertion of ventricular assist device, percutaneous, including radiological supervision and interpretation; right heart, venous access only
33997	Removal of percutaneous right heart ventricular assist device, venous cannula, at separate and distinct session from insertion
34001	Embolectomy or thrombectomy, with or without catheter; carotid, subclavian or innominate artery, by neck incision
34051	Embolectomy or thrombectomy, with or without catheter; innominate, subclavian artery, by thoracic incision
34151	Embolectomy or thrombectomy, with or without catheter; renal, celiac, mesentery, aortoiliac artery, by abdominal incision
34401	Thrombectomy, direct or with catheter; vena cava, iliac vein, by abdominal incision
34451	Thrombectomy, direct or with catheter; vena cava, iliac, femoropopliteal vein, by abdominal and leg incision

34502	Reconstruction of vena cava, any method
34701	Endovascular repair of infrarenal aorta by deployment of an aorto-aortic tube endograft including pre-procedure sizing and device selection, all nonselective catheterization(s), all associated radiological supervision and interpretation, all endograft extension(s) placed in the aorta from the level of the renal arteries to the aortic bifurcation, and all angioplasty/stenting performed from the level of the renal arteries to the aortic bifurcation; for other than rupture (eg, for aneurysm, pseudoaneurysm, dissection, penetrating ulcer)
34702	Endovascular repair of infrarenal aorta by deployment of an aorto-aortic tube endograft including pre-procedure sizing and device selection, all nonselective catheterization(s), all associated radiological supervision and interpretation, all endograft extension(s) placed in the aorta from the level of the renal arteries to the aortic bifurcation, and all angioplasty/stenting performed from the level of the renal arteries to the aortic bifurcation; for rupture including temporary aortic and/or iliac balloon occlusion, when performed (eg, for aneurysm, pseudoaneurysm, dissection, penetrating ulcer, traumatic disruption)
34703	Endovascular repair of infrarenal aorta and/or iliac artery(ies) by deployment of an aorto-uni-iliac endograft including pre-procedure sizing and device selection, all nonselective catheterization(s), all associated radiological supervision and interpretation, all endograft extension(s) placed in the aorta from the level of the renal arteries to the iliac bifurcation, and all angioplasty/stenting performed from the level of the renal arteries to the iliac bifurcation; for other than rupture (eg, for aneurysm, pseudoaneurysm, dissection, penetrating ulcer)
34704	Endovascular repair of infrarenal aorta and/or iliac artery(ies) by deployment of an aorto-uni-iliac endograft including pre-procedure sizing and device selection, all nonselective catheterization(s), all associated radiological supervision and interpretation, all endograft extension(s) placed in the aorta from the level of the renal arteries to the iliac bifurcation, and all angioplasty/stenting performed from the level of the renal arteries to the iliac bifurcation; for rupture including temporary aortic and/or iliac balloon occlusion, when performed (eg, for aneurysm, pseudoaneurysm, dissection, penetrating ulcer, traumatic disruption)

34705	Endovascular repair of infrarenal aorta and/or iliac artery(ies) by deployment of an aorto-bi-iliac endograft including pre-procedure sizing and device selection, all nonselective catheterization(s), all associated radiological supervision and interpretation, all endograft extension(s) placed in the aorta from the level of the renal arteries to the iliac bifurcation, and all angioplasty/stenting performed from the level of the renal arteries to the iliac bifurcation; for other than rupture (eg, for aneurysm, pseudoaneurysm, dissection, penetrating ulcer)
34706	Endovascular repair of infrarenal aorta and/or iliac artery(ies) by deployment of an aorto-bi-iliac endograft including pre-procedure sizing and device selection, all nonselective catheterization(s), all associated radiological supervision and interpretation, all endograft extension(s) placed in the aorta from the level of the renal arteries to the iliac bifurcation, and all angioplasty/stenting performed from the level of the renal arteries to the iliac bifurcation; for rupture including temporary aortic and/or iliac balloon occlusion, when performed (eg, for aneurysm, pseudoaneurysm, dissection, penetrating ulcer, traumatic disruption)
34707	Endovascular repair of iliac artery by deployment of an ilio-iliac tube endograft including pre-procedure sizing and device selection, all nonselective catheterization(s), all associated radiological supervision and interpretation, and all endograft extension(s) proximally to the aortic bifurcation and distally to the iliac bifurcation, and treatment zone angioplasty/stenting, when performed, unilateral; for other than rupture (eg, for aneurysm, pseudoaneurysm, dissection, arteriovenous malformation)
34708	Endovascular repair of iliac artery by deployment of an ilio-iliac tube endograft including pre-procedure sizing and device selection, all nonselective catheterization(s), all associated radiological supervision and interpretation, and all endograft extension(s) proximally to the aortic bifurcation and distally to the iliac bifurcation, and treatment zone angioplasty/stenting, when performed, unilateral; for rupture including temporary aortic and/or iliac balloon occlusion, when performed (eg, for aneurysm, pseudoaneurysm, dissection, arteriovenous malformation, traumatic disruption)

34709	Placement of extension prosthesis(es) distal to the common iliac artery(ies) or proximal to the renal artery(ies) for endovascular repair of infrarenal abdominal aortic or iliac aneurysm, false aneurysm, dissection, penetrating ulcer, including pre-procedure sizing and device selection, all nonselective catheterization(s), all associated radiological supervision and interpretation, and treatment zone angioplasty/stenting, when performed, per vessel treated (List separately in addition to code for primary procedure)
34710	Delayed placement of distal or proximal extension prosthesis for endovascular repair of infrarenal abdominal aortic or iliac aneurysm, false aneurysm, dissection, endoleak, or endograft migration, including pre-procedure sizing and device selection, all nonselective catheterization(s), all associated radiological supervision and interpretation, and treatment zone angioplasty/stenting, when performed; initial vessel treated
34711	Delayed placement of distal or proximal extension prosthesis for endovascular repair of infrarenal abdominal aortic or iliac aneurysm, false aneurysm, dissection, endoleak, or endograft migration, including pre-procedure sizing and device selection, all nonselective catheterization(s), all associated radiological supervision and interpretation, and treatment zone angioplasty/stenting, when performed; each additional vessel treated (List separately in addition to code for primary procedure)
34712	Transcatheter delivery of enhanced fixation device(s) to the endograft (eg, anchor, screw, tack) and all associated radiological supervision and interpretation
34717	Endovascular repair of iliac artery at the time of aorto-iliac artery endograft placement by deployment of an iliac branched endograft including pre-procedure sizing and device selection, all ipsilateral selective iliac artery catheterization(s), all associated radiological supervision and interpretation, and all endograft extension(s) proximally to the aortic bifurcation and distally in the internal iliac, external iliac, and common femoral artery(ies), and treatment zone angioplasty/stenting, when performed, for rupture or other than rupture (eg, for aneurysm, pseudoaneurysm, dissection, arteriovenous malformation, penetrating ulcer, traumatic disruption), unilateral (List separately in addition to code for primary procedure)

34718	Endovascular repair of iliac artery, not associated with placement of an aorto-iliac artery endograft at the same session, by deployment of an iliac branched endograft, including pre-procedure sizing and device selection, all ipsilateral selective iliac artery catheterization(s), all associated radiological supervision and interpretation, and all endograft extension(s) proximally to the aortic bifurcation and distally in the internal iliac, external iliac, and common femoral artery(ies), and treatment zone angioplasty/stenting, when performed, for other than rupture (eg, for aneurysm, pseudoaneurysm, dissection, arteriovenous malformation, penetrating ulcer), unilateral
34808	Endovascular placement of iliac artery occlusion device (List separately in addition to code for primary procedure)
34812	Open femoral artery exposure for delivery of endovascular prosthesis, by groin incision, unilateral (List separately in addition to code for primary procedure)
34813	Placement of femoral-femoral prosthetic graft during endovascular aortic aneurysm repair (List separately in addition to code for primary procedure)
34820	Open iliac artery exposure for delivery of endovascular prosthesis or iliac occlusion during endovascular therapy, by abdominal or retroperitoneal incision, unilateral (List separately in addition to code for primary procedure)
34830	Open repair of infrarenal aortic aneurysm or dissection, plus repair of associated arterial trauma, following unsuccessful endovascular repair; tube prosthesis
34831	Open repair of infrarenal aortic aneurysm or dissection, plus repair of associated arterial trauma, following unsuccessful endovascular repair; aorto-bi-iliac prosthesis
34832	Open repair of infrarenal aortic aneurysm or dissection, plus repair of associated arterial trauma, following unsuccessful endovascular repair; aorto-bifemoral prosthesis
34833	Open iliac artery exposure with creation of conduit for delivery of endovascular prosthesis or for establishment of cardiopulmonary bypass, by abdominal or retroperitoneal incision, unilateral (List separately in addition to code for primary procedure)

34834	Open brachial artery exposure for delivery of endovascular prosthesis, unilateral (List separately in addition to code for primary procedure)
34841	Endovascular repair of visceral aorta (eg, aneurysm, pseudoaneurysm, dissection, penetrating ulcer, intramural hematoma, or traumatic disruption) by deployment of a fenestrated visceral aortic endograft and all associated radiological supervision and interpretation, including target zone angioplasty, when performed; including one visceral artery endoprosthesis (superior mesenteric, celiac or renal artery)"
34842	Endovascular repair of visceral aorta (eg, aneurysm, pseudoaneurysm, dissection, penetrating ulcer, intramural hematoma, or traumatic disruption) by deployment of a fenestrated visceral aortic endograft and all associated radiological supervision and interpretation, including target zone angioplasty, when performed; including two visceral artery endoprostheses (superior mesenteric, celiac and/or renal artery[s])"
34843	Endovascular repair of visceral aorta (eg, aneurysm, pseudoaneurysm, dissection, penetrating ulcer, intramural hematoma, or traumatic disruption) by deployment of a fenestrated visceral aortic endograft and all associated radiological supervision and interpretation, including target zone angioplasty, when performed; including three visceral artery endoprostheses (superior mesenteric, celiac and/or renal artery[s])"
34844	Endovascular repair of visceral aorta (eg, aneurysm, pseudoaneurysm, dissection, penetrating ulcer, intramural hematoma, or traumatic disruption) by deployment of a fenestrated visceral aortic endograft and all associated radiological supervision and interpretation, including target zone angioplasty, when performed; including four or more visceral artery endoprostheses (superior mesenteric, celiac and/or renal artery[s])"

34845	Endovascular repair of visceral aorta and infrarenal abdominal aorta (eg, aneurysm, pseudoaneurysm, dissection, penetrating ulcer, intramural hematoma, or traumatic disruption) with a fenestrated visceral aortic endograft and concomitant unibody or modular infrarenal aortic endograft and all associated radiological supervision and interpretation, including target zone angioplasty, when performed; including one visceral artery endoprosthesis (superior mesenteric, celiac or renal artery)"
34846	Endovascular repair of visceral aorta and infrarenal abdominal aorta (eg, aneurysm, pseudoaneurysm, dissection, penetrating ulcer, intramural hematoma, or traumatic disruption) with a fenestrated visceral aortic endograft and concomitant unibody or modular infrarenal aortic endograft and all associated radiological supervision and interpretation, including target zone angioplasty, when performed; including two visceral artery endoprostheses (superior mesenteric, celiac and/or renal artery[s])"
34847	Endovascular repair of visceral aorta and infrarenal abdominal aorta (eg, aneurysm, pseudoaneurysm, dissection, penetrating ulcer, intramural hematoma, or traumatic disruption) with a fenestrated visceral aortic endograft and concomitant unibody or modular infrarenal aortic endograft and all associated radiological supervision and interpretation, including target zone angioplasty, when performed; including three visceral artery endoprostheses (superior mesenteric, celiac and/or renal artery[s])"
34848	Endovascular repair of visceral aorta and infrarenal abdominal aorta (eg, aneurysm, pseudoaneurysm, dissection, penetrating ulcer, intramural hematoma, or traumatic disruption) with a fenestrated visceral aortic endograft and concomitant unibody or modular infrarenal aortic endograft and all associated radiological supervision and interpretation, including target zone angioplasty, when performed; including four or more visceral artery endoprostheses (superior mesenteric, celiac and/or renal artery[s])"
35001	Direct repair of aneurysm, pseudoaneurysm, or excision (partial or total) and graft insertion, with or without patch graft; for aneurysm and associated occlusive disease, carotid, subclavian artery, by neck incision

35002	Direct repair of aneurysm, pseudoaneurysm, or excision (partial or total) and graft insertion, with or without patch graft; for ruptured aneurysm, carotid, subclavian artery, by neck incision
35005	Direct repair of aneurysm, pseudoaneurysm, or excision (partial or total) and graft insertion, with or without patch graft; for aneurysm, pseudoaneurysm, and associated occlusive disease, vertebral artery
35013	Direct repair of aneurysm, pseudoaneurysm, or excision (partial or total) and graft insertion, with or without patch graft; for ruptured aneurysm, axillary-brachial artery, by arm incision
35021	Direct repair of aneurysm, pseudoaneurysm, or excision (partial or total) and graft insertion, with or without patch graft; for aneurysm, pseudoaneurysm, and associated occlusive disease, innominate, subclavian artery, by thoracic incision
35022	Direct repair of aneurysm, pseudoaneurysm, or excision (partial or total) and graft insertion, with or without patch graft; for ruptured aneurysm, innominate, subclavian artery, by thoracic incision
35081	Direct repair of aneurysm, pseudoaneurysm, or excision (partial or total) and graft insertion, with or without patch graft; for aneurysm, pseudoaneurysm, and associated occlusive disease, abdominal aorta
35082	Direct repair of aneurysm, pseudoaneurysm, or excision (partial or total) and graft insertion, with or without patch graft; for ruptured aneurysm, abdominal aorta
35091	Direct repair of aneurysm, pseudoaneurysm, or excision (partial or total) and graft insertion, with or without patch graft; for aneurysm, pseudoaneurysm, and associated occlusive disease, abdominal aorta involving visceral vessels (mesenteric, celiac, renal)"
35092	Direct repair of aneurysm, pseudoaneurysm, or excision (partial or total) and graft insertion, with or without patch graft; for ruptured aneurysm, abdominal aorta involving visceral vessels (mesenteric, celiac, renal)
35102	Direct repair of aneurysm, pseudoaneurysm, or excision (partial or total) and graft insertion, with or without patch graft; for aneurysm, pseudoaneurysm, and associated occlusive disease, abdominal aorta involving iliac vessels (common, hypogastric, external)"

35103	Direct repair of aneurysm, pseudoaneurysm, or excision (partial or total) and graft insertion, with or without patch graft; for ruptured aneurysm, abdominal aorta involving iliac vessels (common, hypogastric, external)
35111	Direct repair of aneurysm, pseudoaneurysm, or excision (partial or total) and graft insertion, with or without patch graft; for aneurysm, pseudoaneurysm, and associated occlusive disease, splenic artery
35112	Direct repair of aneurysm, pseudoaneurysm, or excision (partial or total) and graft insertion, with or without patch graft; for ruptured aneurysm, splenic artery
35121	Direct repair of aneurysm, pseudoaneurysm, or excision (partial or total) and graft insertion, with or without patch graft; for aneurysm, pseudoaneurysm, and associated occlusive disease, hepatic, celiac, renal, or mesenteric artery
35122	Direct repair of aneurysm, pseudoaneurysm, or excision (partial or total) and graft insertion, with or without patch graft; for ruptured aneurysm, hepatic, celiac, renal, or mesenteric artery
35131	Direct repair of aneurysm, pseudoaneurysm, or excision (partial or total) and graft insertion, with or without patch graft; for aneurysm, pseudoaneurysm, and associated occlusive disease, iliac artery (common, hypogastric, external)
35132	Direct repair of aneurysm, pseudoaneurysm, or excision (partial or total) and graft insertion, with or without patch graft; for ruptured aneurysm, iliac artery (common, hypogastric, external)
35141	Direct repair of aneurysm, pseudoaneurysm, or excision (partial or total) and graft insertion, with or without patch graft; for aneurysm, pseudoaneurysm, and associated occlusive disease, common femoral artery (profunda femoris, superficial femoral)
35142	Direct repair of aneurysm, pseudoaneurysm, or excision (partial or total) and graft insertion, with or without patch graft; for ruptured aneurysm, common femoral artery (profunda femoris, superficial femoral)
35151	Direct repair of aneurysm, pseudoaneurysm, or excision (partial or total) and graft insertion, with or without patch graft; for aneurysm, pseudoaneurysm, and associated occlusive disease, popliteal artery

35152	Direct repair of aneurysm, pseudoaneurysm, or excision (partial or total) and graft insertion, with or without patch graft; for ruptured aneurysm, popliteal artery
35182	Repair, congenital arteriovenous fistula; thorax and abdomen
35189	Repair, acquired or traumatic arteriovenous fistula; thorax and abdomen
35211	Repair blood vessel, direct; intrathoracic, with bypass
35216	Repair blood vessel, direct; intrathoracic, without bypass
35221	Repair blood vessel, direct; intra-abdominal
35241	Repair blood vessel with vein graft; intrathoracic, with bypass
35246	Repair blood vessel with vein graft; intrathoracic, without bypass
35251	Repair blood vessel with vein graft; intra-abdominal
35271	Repair blood vessel with graft other than vein; intrathoracic, with bypass
35276	Repair blood vessel with graft other than vein; intrathoracic, without bypass
35281	Repair blood vessel with graft other than vein; intra-abdominal
35301	Thromboendarterectomy, including patch graft, if performed; carotid, vertebral, subclavian, by neck incision
35302	Thromboendarterectomy, including patch graft, if performed; superficial femoral artery
35303	Thromboendarterectomy, including patch graft, if performed; popliteal artery
35304	Thromboendarterectomy, including patch graft, if performed; tibioperoneal trunk artery
35305	Thromboendarterectomy, including patch graft, if performed; tibial or peroneal artery, initial vessel
35306	Thromboendarterectomy, including patch graft, if performed; each additional tibial or peroneal artery (List separately in addition to code for primary procedure)
35311	Thromboendarterectomy, including patch graft, if performed; subclavian, innominate, by thoracic incision
35331	Thromboendarterectomy, including patch graft, if performed; abdominal aorta
35341	Thromboendarterectomy, including patch graft, if performed; mesenteric, celiac, or renal
35351	Thromboendarterectomy, including patch graft, if performed; iliac

35355	Thromboendarterectomy, including patch graft, if performed; iliofemoral
35361	Thromboendarterectomy, including patch graft, if performed; combined aortoiliac
35363	Thromboendarterectomy, including patch graft, if performed; combined aortoiliofemoral
35371	Thromboendarterectomy, including patch graft, if performed; common femoral
35372	Thromboendarterectomy, including patch graft, if performed; deep (profunda) femoral
35390	Reoperation, carotid, thromboendarterectomy, more than 1 month after original operation (List separately in addition to code for primary procedure)
35400	Angioscopy (noncoronary vessels or grafts) during therapeutic intervention (List separately in addition to code for primary procedure)
35501	Bypass graft, with vein; common carotid-ipsilateral internal carotid
35506	Bypass graft, with vein; carotid-subclavian or subclavian-carotid
35508	Bypass graft, with vein; carotid-vertebral
35509	Bypass graft, with vein; carotid-contralateral carotid
35510	Bypass graft, with vein; carotid-brachial
35511	Bypass graft, with vein; subclavian-subclavian
35512	Bypass graft, with vein; subclavian-brachial
35515	Bypass graft, with vein; subclavian-vertebral
35516	Bypass graft, with vein; subclavian-axillary
35518	Bypass graft, with vein; axillary-axillary
35521	Bypass graft, with vein; axillary-femoral
35522	Bypass graft, with vein; axillary-brachial
35523	Bypass graft, with vein; brachial-ulnar or -radial
35525	Bypass graft, with vein; brachial-brachial
35526	Bypass graft, with vein; aortosubclavian, aortoinnominate, or aortocarotid
35531	Bypass graft, with vein; aortoceliac or aortomesenteric
35533	Bypass graft, with vein; axillary-femoral-femoral
35535	Bypass graft, with vein; hepatorenal

35536	Bypass graft, with vein; splenorenal
35537	Bypass graft, with vein; aortoiliac
35538	Bypass graft, with vein; aortobi-iliac
35539	Bypass graft, with vein; aortofemoral
35540	Bypass graft, with vein; aortobifemoral
35556	Bypass graft, with vein; femoral-popliteal
35558	Bypass graft, with vein; femoral-femoral
35560	Bypass graft, with vein; aortorenal
35563	Bypass graft, with vein; ilioiliac
35565	Bypass graft, with vein; iliofemoral
35566	Bypass graft, with vein; femoral-anterior tibial, posterior tibial, peroneal artery or other distal vessels
35570	Bypass graft, with vein; tibial-tibial, peroneal-tibial, or tibial/peroneal trunk-tibial
35571	Bypass graft, with vein; popliteal-tibial, -peroneal artery or other distal vessels
35583	In-situ vein bypass; femoral-popliteal
35585	In-situ vein bypass; femoral-anterior tibial, posterior tibial, or peroneal artery
35587	In-situ vein bypass; popliteal-tibial, peroneal
35600	Harvest of upper extremity artery, 1 segment, for coronary artery bypass procedure, open
35601	Bypass graft, with other than vein; common carotid-ipsilateral internal carotid
35606	Bypass graft, with other than vein; carotid-subclavian
35612	Bypass graft, with other than vein; subclavian-subclavian
35616	Bypass graft, with other than vein; subclavian-axillary
35621	Bypass graft, with other than vein; axillary-femoral
35623	Bypass graft, with other than vein; axillary-popliteal or -tibial
35626	Bypass graft, with other than vein; aortosubclavian, aortoinnominate, or aortocarotid
35631	Bypass graft, with other than vein; aortoceliac, aortomesenteric, aortorenal
35632	Bypass graft, with other than vein; ilio-celiac

35633	Bypass graft, with other than vein; ilio-mesenteric
35634	Bypass graft, with other than vein; iliorenal
35636	Bypass graft, with other than vein; splenorenal (splenic to renal arterial anastomosis)
35637	Bypass graft, with other than vein; aortoiliac
35638	Bypass graft, with other than vein; aortobi-iliac
35642	Bypass graft, with other than vein; carotid-vertebral
35645	Bypass graft, with other than vein; subclavian-vertebral
35646	Bypass graft, with other than vein; aortobifemoral
35647	Bypass graft, with other than vein; aortofemoral
35650	Bypass graft, with other than vein; axillary-axillary
35654	Bypass graft, with other than vein; axillary-femoral-femoral
35656	Bypass graft, with other than vein; femoral-popliteal
35661	Bypass graft, with other than vein; femoral-femoral
35663	Bypass graft, with other than vein; ilioiliac
35665	Bypass graft, with other than vein; iliofemoral
35666	Bypass graft, with other than vein; femoral-anterior tibial, posterior tibial, or peroneal artery
35671	Bypass graft, with other than vein; popliteal-tibial or -peroneal artery
35681	Bypass graft; composite, prosthetic and vein (List separately in addition to code for primary procedure)
35682	Bypass graft; autogenous composite, 2 segments of veins from 2 locations (List separately in addition to code for primary procedure)
35683	Bypass graft; autogenous composite, 3 or more segments of vein from 2 or more locations (List separately in addition to code for primary procedure)
35691	Transposition and/or reimplantation; vertebral to carotid artery
35693	Transposition and/or reimplantation; vertebral to subclavian artery
35694	Transposition and/or reimplantation; subclavian to carotid artery
35695	Transposition and/or reimplantation; carotid to subclavian artery

35697	Reimplantation, visceral artery to infrarenal aortic prosthesis, each artery (List separately in addition to code for primary procedure)
35700	Reoperation, femoral-popliteal or femoral (popliteal)-anterior tibial, posterior tibial, peroneal artery, or other distal vessels, more than 1 month after original operation (List separately in addition to code for primary procedure)
35701	Exploration not followed by surgical repair, artery; neck (eg, carotid, subclavian)
35702	Exploration not followed by surgical repair, artery; upper extremity (eg, axillary, brachial, radial, ulnar)
35703	Exploration not followed by surgical repair, artery; lower extremity (eg, common femoral, deep femoral, superficial femoral, popliteal, tibial, peroneal)
35800	Exploration for postoperative hemorrhage, thrombosis or infection; neck
35820	Exploration for postoperative hemorrhage, thrombosis or infection; chest
35840	Exploration for postoperative hemorrhage, thrombosis or infection; abdomen
35870	Repair of graft-enteric fistula
35901	Excision of infected graft; neck
35905	Excision of infected graft; thorax
35907	Excision of infected graft; abdomen
36660	Catheterization, umbilical artery, newborn, for diagnosis or therapy
36823	Insertion of arterial and venous cannula(s) for isolated extracorporeal circulation including regional chemotherapy perfusion to an extremity, with or without hyperthermia, with removal of cannula(s) and repair of arteriotomy and venotomy sites
37140	Venous anastomosis, open; portocaval
37145	Venous anastomosis, open; renoportal
37160	Venous anastomosis, open; caval-mesenteric
37180	Venous anastomosis, open; splenorenal, proximal
37181	Venous anastomosis, open; splenorenal, distal (selective decompression of esophagogastric varices, any technique)

37182	Insertion of transvenous intrahepatic portosystemic shunt(s) (TIPS) (includes venous access, hepatic and portal vein catheterization, portography with hemodynamic evaluation, intrahepatic tract formation/dilatation, stent placement and all associated imaging guidance and documentation)"
37215	Transcatheter placement of intravascular stent(s), cervical carotid artery, open or percutaneous, including angioplasty, when performed, and radiological supervision and interpretation; with distal embolic protection
37217	Transcatheter placement of intravascular stent(s), intrathoracic common carotid artery or innominate artery by retrograde treatment, open ipsilateral cervical carotid artery exposure, including angioplasty, when performed, and radiological supervision and interpretation"
37218	Transcatheter placement of intravascular stent(s), intrathoracic common carotid artery or innominate artery, open or percutaneous antegrade approach, including angioplasty, when performed, and radiological supervision and interpretation
37616	Ligation, major artery (eg, post-traumatic, rupture); chest
37617	Ligation, major artery (eg, post-traumatic, rupture); abdomen
37618	Ligation, major artery (eg, post-traumatic, rupture); extremity
37660	Ligation of common iliac vein
37788	Penile revascularization, artery, with or without vein graft
38100	Splenectomy; total (separate procedure)
38101	Splenectomy; partial (separate procedure)
38102	Splenectomy; total, en bloc for extensive disease, in conjunction with other procedure (List in addition to code for primary procedure)
38115	Repair of ruptured spleen (splenorrhaphy) with or without partial splenectomy
38380	Suture and/or ligation of thoracic duct; cervical approach
38381	Suture and/or ligation of thoracic duct; thoracic approach
38382	Suture and/or ligation of thoracic duct; abdominal approach
38562	Limited lymphadenectomy for staging (separate procedure); pelvic and para-aortic

38564	Limited lymphadenectomy for staging (separate procedure); retroperitoneal (aortic and/or splenic)
38724	Cervical lymphadenectomy (modified radical neck dissection)
38746	Thoracic lymphadenectomy by thoracotomy, mediastinal and regional lymphadenectomy (List separately in addition to code for primary procedure)
38747	Abdominal lymphadenectomy, regional, including celiac, gastric, portal, peripancreatic, with or without para-aortic and vena caval nodes (List separately in addition to code for primary procedure)
38765	Inguinofemoral lymphadenectomy, superficial, in continuity with pelvic lymphadenectomy, including external iliac, hypogastric, and obturator nodes (separate procedure)
38770	Pelvic lymphadenectomy, including external iliac, hypogastric, and obturator nodes (separate procedure)
38780	Retroperitoneal transabdominal lymphadenectomy, extensive, including pelvic, aortic, and renal nodes (separate procedure)
39000	Mediastinotomy with exploration, drainage, removal of foreign body, or biopsy; cervical approach
39010	Mediastinotomy with exploration, drainage, removal of foreign body, or biopsy; transthoracic approach, including either transthoracic or median sternotomy
39200	Resection of mediastinal cyst
39220	Resection of mediastinal tumor
39499	Unlisted procedure, mediastinum
39501	Repair, laceration of diaphragm, any approach
39503	Repair, neonatal diaphragmatic hernia, with or without chest tube insertion and with or without creation of ventral hernia
39540	Repair, diaphragmatic hernia (other than neonatal), traumatic; acute
39541	Repair, diaphragmatic hernia (other than neonatal), traumatic; chronic
39545	Imbrication of diaphragm for eventration, transthoracic or transabdominal, paralytic or nonparalytic

39560	Resection, diaphragm; with simple repair (eg, primary suture)
39561	Resection, diaphragm; with complex repair (eg, prosthetic material, local muscle flap)
39599	Unlisted procedure, diaphragm
41130	Glossectomy; hemiglossectomy
41135	Glossectomy; partial, with unilateral radical neck dissection
41140	Glossectomy; complete or total, with or without tracheostomy, without radical neck dissection
41145	Glossectomy; complete or total, with or without tracheostomy, with unilateral radical neck dissection
41150	Glossectomy; composite procedure with resection floor of mouth and mandibular resection, without radical neck dissection
41153	Glossectomy; composite procedure with resection floor of mouth, with suprahyoid neck dissection
41155	Glossectomy; composite procedure with resection floor of mouth, mandibular resection, and radical neck dissection (Commando type)
42426	Excision of parotid tumor or parotid gland; total, with unilateral radical neck dissection
42845	Radical resection of tonsil, tonsillar pillars, and/or retromolar trigone; closure with other flap
42894	Resection of pharyngeal wall requiring closure with myocutaneous or fasciocutaneous flap or free muscle, skin, or fascial flap with microvascular anastomosis
42953	Pharyngoesophageal repair
42961	Control oropharyngeal hemorrhage, primary or secondary (eg, post-tonsillectomy); complicated, requiring hospitalization
42971	Control of nasopharyngeal hemorrhage, primary or secondary (eg, postadenoidectomy); complicated, requiring hospitalization
43045	Esophagotomy, thoracic approach, with removal of foreign body
43100	Excision of lesion, esophagus, with primary repair; cervical approach
43101	Excision of lesion, esophagus, with primary repair; thoracic or abdominal approach

43107	Total or near total esophagectomy, without thoracotomy; with pharyngogastrostomy or cervical esophagogastrostomy, with or without pyloroplasty (transhiatal)
43108	Total or near total esophagectomy, without thoracotomy; with colon interposition or small intestine reconstruction, including intestine mobilization, preparation and anastomosis(es)
43112	Total or near total esophagectomy, with thoracotomy; with pharyngogastrostomy or cervical esophagogastrostomy, with or without pyloroplasty (ie, McKeown esophagectomy or tri-incisional esophagectomy)
43113	Total or near total esophagectomy, with thoracotomy; with colon interposition or small intestine reconstruction, including intestine mobilization, preparation, and anastomosis(es)
43116	Partial esophagectomy, cervical, with free intestinal graft, including microvascular anastomosis, obtaining the graft and intestinal reconstruction
43117	Partial esophagectomy, distal two-thirds, with thoracotomy and separate abdominal incision, with or without proximal gastrectomy; with thoracic esophagogastrostomy, with or without pyloroplasty (Ivor Lewis)
43118	Partial esophagectomy, distal two-thirds, with thoracotomy and separate abdominal incision, with or without proximal gastrectomy; with colon interposition or small intestine reconstruction, including intestine mobilization, preparation, and anastomosis(es)"
43121	Partial esophagectomy, distal two-thirds, with thoracotomy only, with or without proximal gastrectomy, with thoracic esophagogastrostomy, with or without pyloroplasty
43122	Partial esophagectomy, thoracoabdominal or abdominal approach, with or without proximal gastrectomy; with esophagogastrostomy, with or without pyloroplasty
43123	Partial esophagectomy, thoracoabdominal or abdominal approach, with or without proximal gastrectomy; with colon interposition or small intestine reconstruction, including intestine mobilization, preparation, and anastomosis(es)
43124	Total or partial esophagectomy, without reconstruction (any approach), with cervical esophagostomy
43135	Diverticulectomy of hypopharynx or esophagus, with or without myotomy; thoracic approach

43279	Laparoscopy, surgical, esophagomyotomy (Heller type), with fundoplasty, when performed
43283	Laparoscopy, surgical, esophageal lengthening procedure (eg, Collis gastroplasty or wedge gastroplasty) (List separately in addition to code for primary procedure)
43286	Esophagectomy, total or near total, with laparoscopic mobilization of the abdominal and mediastinal esophagus and proximal gastrectomy, with laparoscopic pyloric drainage procedure if performed, with open cervical pharyngogastrostomy or esophagogastrostomy (ie, laparoscopic transhiatal esophagectomy)"
43287	Esophagectomy, distal two-thirds, with laparoscopic mobilization of the abdominal and lower mediastinal esophagus and proximal gastrectomy, with laparoscopic pyloric drainage procedure if performed, with separate thoracoscopic mobilization of the middle and upper mediastinal esophagus and thoracic esophagogastrostomy (ie, laparoscopic thoracoscopic esophagectomy, Ivor Lewis esophagectomy)"
43288	Esophagectomy, total or near total, with thoracoscopic mobilization of the upper, middle, and lower mediastinal esophagus, with separate laparoscopic proximal gastrectomy, with laparoscopic pyloric drainage procedure if performed, with open cervical pharyngogastrostomy or esophagogastrostomy (ie, thoracoscopic, laparoscopic and cervical incision esophagectomy, McKeown esophagectomy, tri-incisional esophagectomy)"
43300	Esophagoplasty (plastic repair or reconstruction), cervical approach; without repair of tracheoesophageal fistula
43305	Esophagoplasty (plastic repair or reconstruction), cervical approach; with repair of tracheoesophageal fistula
43310	Esophagoplasty (plastic repair or reconstruction), thoracic approach; without repair of tracheoesophageal fistula
43312	Esophagoplasty (plastic repair or reconstruction), thoracic approach; with repair of tracheoesophageal fistula
43313	Esophagoplasty for congenital defect (plastic repair or reconstruction), thoracic approach; without repair of congenital tracheoesophageal fistula

43314	Esophagoplasty for congenital defect (plastic repair or reconstruction), thoracic approach; with repair of congenital tracheoesophageal fistula
43320	Esophagogastrostomy (cardioplasty), with or without vagotomy and pyloroplasty, transabdominal or transthoracic approach
43325	Esophagogastric fundoplasty, with fundic patch (Thal-Nissen procedure)
43327	Esophagogastric fundoplasty partial or complete; laparotomy
43328	Esophagogastric fundoplasty partial or complete; thoracotomy
43330	Esophagomyotomy (Heller type); abdominal approach
43331	Esophagomyotomy (Heller type); thoracic approach
43332	Repair, paraesophageal hiatal hernia (including fundoplication), via laparotomy, except neonatal; without implantation of mesh or other prosthesis
43333	Repair, paraesophageal hiatal hernia (including fundoplication), via laparotomy, except neonatal; with implantation of mesh or other prosthesis
43334	Repair, paraesophageal hiatal hernia (including fundoplication), via thoracotomy, except neonatal; without implantation of mesh or other prosthesis
43335	Repair, paraesophageal hiatal hernia (including fundoplication), via thoracotomy, except neonatal; with implantation of mesh or other prosthesis
43336	Repair, paraesophageal hiatal hernia, (including fundoplication), via thoracoabdominal incision, except neonatal; without implantation of mesh or other prosthesis
43337	Repair, paraesophageal hiatal hernia, (including fundoplication), via thoracoabdominal incision, except neonatal; with implantation of mesh or other prosthesis
43338	Esophageal lengthening procedure (eg, Collis gastroplasty or wedge gastroplasty) (List separately in addition to code for primary procedure)
43340	Esophagojejunostomy (without total gastrectomy); abdominal approach
43341	Esophagojejunostomy (without total gastrectomy); thoracic approach
43351	Esophagostomy, fistulization of esophagus, external; thoracic approach
43352	Esophagostomy, fistulization of esophagus, external; cervical approach

43360	Gastrointestinal reconstruction for previous esophagectomy, for obstructing esophageal lesion or fistula, or for previous esophageal exclusion; with stomach, with or without pyloroplasty
43361	Gastrointestinal reconstruction for previous esophagectomy, for obstructing esophageal lesion or fistula, or for previous esophageal exclusion; with colon interposition or small intestine reconstruction, including intestine mobilization, preparation, and anastomosis(es)"
43400	Ligation, direct, esophageal varices
43405	Ligation or stapling at gastroesophageal junction for pre-existing esophageal perforation
43410	Suture of esophageal wound or injury; cervical approach
43415	Suture of esophageal wound or injury; transthoracic or transabdominal approach
43425	Closure of esophagostomy or fistula; transthoracic or transabdominal approach
43460	Esophagogastric tamponade, with balloon (Sengstaken type)
43496	Free jejunum transfer with microvascular anastomosis
43500	Gastrotomy; with exploration or foreign body removal
43501	Gastrotomy; with suture repair of bleeding ulcer
43502	Gastrotomy; with suture repair of pre-existing esophagogastric laceration (eg, Mallory-Weiss)
43520	Pyloromyotomy, cutting of pyloric muscle (Fredet-Ramstedt type operation)
43605	Biopsy of stomach, by laparotomy
43610	Excision, local; ulcer or benign tumor of stomach
43611	Excision, local; malignant tumor of stomach
43620	Gastrectomy, total; with esophagoenterostomy
43621	Gastrectomy, total; with Roux-en-Y reconstruction
43622	Gastrectomy, total; with formation of intestinal pouch, any type
43631	Gastrectomy, partial, distal; with gastroduodenostomy
43632	Gastrectomy, partial, distal; with gastrojejunostomy
43633	Gastrectomy, partial, distal; with Roux-en-Y reconstruction
43634	Gastrectomy, partial, distal; with formation of intestinal pouch

43635	Vagotomy when performed with partial distal gastrectomy (List separately in addition to code[s] for primary procedure)
43640	Vagotomy including pyloroplasty, with or without gastrostomy; truncal or selective
43641	Vagotomy including pyloroplasty, with or without gastrostomy; parietal cell (highly selective)
43644	Laparoscopy, surgical, gastric restrictive procedure; with gastric bypass and Roux-en-Y gastroenterostomy (roux limb 150 cm or less)
43645	Laparoscopy, surgical, gastric restrictive procedure; with gastric bypass and small intestine reconstruction to limit absorption
43771	Laparoscopy, surgical, gastric restrictive procedure; revision of adjustable gastric restrictive device component only
43775	Laparoscopy, surgical, gastric restrictive procedure; longitudinal gastrectomy (ie, sleeve gastrectomy)
43800	Pyloroplasty
43810	Gastroduodenostomy
43820	Gastrojejunostomy; without vagotomy
43825	Gastrojejunostomy; with vagotomy, any type
43832	Gastrostomy, open; with construction of gastric tube (eg, Janeway procedure)
43840	Gastrorrhaphy, suture of perforated duodenal or gastric ulcer, wound, or injury
43843	Gastric restrictive procedure, without gastric bypass, for morbid obesity; other than vertical-banded gastroplasty
43845	Gastric restrictive procedure with partial gastrectomy, pylorus-preserving duodenoileostomy and ileoileostomy (50 to 100 cm common channel) to limit absorption (biliopancreatic diversion with duodenal switch)
43846	Gastric restrictive procedure, with gastric bypass for morbid obesity; with short limb (150 cm or less) Roux-en-Y gastroenterostomy
43847	Gastric restrictive procedure, with gastric bypass for morbid obesity; with small intestine reconstruction to limit absorption

43848	Revision, open, of gastric restrictive procedure for morbid obesity, other than adjustable gastric restrictive device (separate procedure)
43860	Revision of gastrojejunal anastomosis (gastrojejunostomy) with reconstruction, with or without partial gastrectomy or intestine resection; without vagotomy
43865	Revision of gastrojejunal anastomosis (gastrojejunostomy) with reconstruction, with or without partial gastrectomy or intestine resection; with vagotomy
43880	Closure of gastrocolic fistula
43881	Implantation or replacement of gastric neurostimulator electrodes, antrum, open
43882	Revision or removal of gastric neurostimulator electrodes, antrum, open
44005	Enterolysis (freeing of intestinal adhesion) (separate procedure)
44010	Duodenotomy, for exploration, biopsy(s), or foreign body removal
44015	Tube or needle catheter jejunostomy for enteral alimentation, intraoperative, any method (List separately in addition to primary procedure)
44020	Enterotomy, small intestine, other than duodenum; for exploration, biopsy(s), or foreign body removal
44021	Enterotomy, small intestine, other than duodenum; for decompression (eg, Baker tube)
44025	Colotomy, for exploration, biopsy(s), or foreign body removal
44050	Reduction of volvulus, intussusception, internal hernia, by laparotomy
44055	Correction of malrotation by lysis of duodenal bands and/or reduction of midgut volvulus (eg, Ladd procedure)
44110	Excision of 1 or more lesions of small or large intestine not requiring anastomosis, exteriorization, or fistulization; single enterotomy
44111	Excision of 1 or more lesions of small or large intestine not requiring anastomosis, exteriorization, or fistulization; multiple enterotomies
44120	Enterectomy, resection of small intestine; single resection and anastomosis
44121	Enterectomy, resection of small intestine; each additional resection and anastomosis (List separately in addition to code for primary procedure)

44125	Enterectomy, resection of small intestine; with enterostomy
44126	Enterectomy, resection of small intestine for congenital atresia, single resection and anastomosis of proximal segment of intestine; without tapering
44127	Enterectomy, resection of small intestine for congenital atresia, single resection and anastomosis of proximal segment of intestine; with tapering
44128	Enterectomy, resection of small intestine for congenital atresia, single resection and anastomosis of proximal segment of intestine; each additional resection and anastomosis (List separately in addition to code for primary procedure)
44130	Enteroenterostomy, anastomosis of intestine, with or without cutaneous enterostomy (separate procedure)
44132	Donor enterectomy (including cold preservation), open; from cadaver donor
44133	Donor enterectomy (including cold preservation), open; partial, from living donor
44135	Intestinal allotransplantation; from cadaver donor
44136	Intestinal allotransplantation; from living donor
44137	Removal of transplanted intestinal allograft, complete
44139	Mobilization (take-down) of splenic flexure performed in conjunction with partial colectomy (List separately in addition to primary procedure)
44140	Colectomy, partial; with anastomosis
44141	Colectomy, partial; with skin level cecostomy or colostomy
44143	Colectomy, partial; with end colostomy and closure of distal segment (Hartmann type procedure)
44144	Colectomy, partial; with resection, with colostomy or ileostomy and creation of mucofistula
44145	Colectomy, partial; with coloproctostomy (low pelvic anastomosis)
44146	Colectomy, partial; with coloproctostomy (low pelvic anastomosis), with colostomy
44147	Colectomy, partial; abdominal and transanal approach
44150	Colectomy, total, abdominal, without proctectomy; with ileostomy or ileoproctostomy
44151	Colectomy, total, abdominal, without proctectomy; with continent ileostomy
44155	Colectomy, total, abdominal, with proctectomy; with ileostomy

44156	Colectomy, total, abdominal, with proctectomy; with continent ileostomy
44157	Colectomy, total, abdominal, with proctectomy; with ileoanal anastomosis, includes loop ileostomy, and rectal mucosectomy, when performed
44158	Colectomy, total, abdominal, with proctectomy; with ileoanal anastomosis, creation of ileal reservoir (S or J), includes loop ileostomy, and rectal mucosectomy, when performed
44160	Colectomy, partial, with removal of terminal ileum with ileocolostomy
44187	Laparoscopy, surgical; ileostomy or jejunostomy, non-tube
44188	Laparoscopy, surgical, colostomy or skin level cecostomy
44202	Laparoscopy, surgical; enterectomy, resection of small intestine, single resection and anastomosis
44203	Laparoscopy, surgical; each additional small intestine resection and anastomosis (List separately in addition to code for primary procedure)
44204	Laparoscopy, surgical; colectomy, partial, with anastomosis
44205	Laparoscopy, surgical; colectomy, partial, with removal of terminal ileum with ileocolostomy
44206	Laparoscopy, surgical; colectomy, partial, with end colostomy and closure of distal segment (Hartmann type procedure)
44207	Laparoscopy, surgical; colectomy, partial, with anastomosis, with coloproctostomy (low pelvic anastomosis)
44208	Laparoscopy, surgical; colectomy, partial, with anastomosis, with coloproctostomy (low pelvic anastomosis) with colostomy
44210	Laparoscopy, surgical; colectomy, total, abdominal, without proctectomy, with ileostomy or ileoproctostomy
44211	Laparoscopy, surgical; colectomy, total, abdominal, with proctectomy, with ileoanal anastomosis, creation of ileal reservoir (S or J), with loop ileostomy, includes rectal mucosectomy, when performed
44212	Laparoscopy, surgical; colectomy, total, abdominal, with proctectomy, with ileostomy
44213	Laparoscopy, surgical, mobilization (take-down) of splenic flexure performed in conjunction with partial colectomy (List separately in addition to primary procedure)

44227	Laparoscopy, surgical, closure of enterostomy, large or small intestine, with resection and anastomosis
44300	Placement, enterostomy or cecostomy, tube open (eg, for feeding or decompression) (separate procedure)
44310	Ileostomy or jejunostomy, non-tube
44314	Revision of ileostomy; complicated (reconstruction in-depth) (separate procedure)
44316	Continent ileostomy (Kock procedure) (separate procedure)
44320	Colostomy or skin level cecostomy
44322	Colostomy or skin level cecostomy; with multiple biopsies (eg, for congenital megacolon) (separate procedure)
44345	Revision of colostomy; complicated (reconstruction in-depth) (separate procedure)
44346	Revision of colostomy; with repair of paracolostomy hernia (separate procedure)
44602	Suture of small intestine (enterorrhaphy) for perforated ulcer, diverticulum, wound, injury or rupture; single perforation
44603	Suture of small intestine (enterorrhaphy) for perforated ulcer, diverticulum, wound, injury or rupture; multiple perforations
44604	Suture of large intestine (colorrhaphy) for perforated ulcer, diverticulum, wound, injury or rupture (single or multiple perforations); without colostomy
44605	Suture of large intestine (colorrhaphy) for perforated ulcer, diverticulum, wound, injury or rupture (single or multiple perforations); with colostomy
44615	Intestinal stricturoplasty (enterotomy and enterorrhaphy) with or without dilation, for intestinal obstruction
44620	Closure of enterostomy, large or small intestine
44625	Closure of enterostomy, large or small intestine; with resection and anastomosis other than colorectal
44626	Closure of enterostomy, large or small intestine; with resection and colorectal anastomosis (eg, closure of Hartmann type procedure)

44640	Closure of intestinal cutaneous fistula
44650	Closure of enteroenteric or enterocolic fistula
44660	Closure of enterovesical fistula; without intestinal or bladder resection
44661	Closure of enterovesical fistula; with intestine and/or bladder resection
44680	Intestinal plication (separate procedure)
44700	Exclusion of small intestine from pelvis by mesh or other prosthesis, or native tissue (eg, bladder or omentum)
44715	Backbench standard preparation of cadaver or living donor intestine allograft prior to transplantation, including mobilization and fashioning of the superior mesenteric artery and vein
44720	Backbench reconstruction of cadaver or living donor intestine allograft prior to transplantation; venous anastomosis, each
44721	Backbench reconstruction of cadaver or living donor intestine allograft prior to transplantation; arterial anastomosis, each
44800	Excision of Meckel's diverticulum (diverticulectomy) or omphalomesenteric duct
44820	Excision of lesion of mesentery (separate procedure)
44850	Suture of mesentery (separate procedure)
44899	Unlisted procedure, Meckel's diverticulum and the mesentery
44900	Incision and drainage of appendiceal abscess, open
44960	Appendectomy; for ruptured appendix with abscess or generalized peritonitis
45110	Proctectomy; complete, combined abdominoperineal, with colostomy
45111	Proctectomy; partial resection of rectum, transabdominal approach
45112	Proctectomy, combined abdominoperineal, pull-through procedure (eg, colo-anal anastomosis)
45113	Proctectomy, partial, with rectal mucosectomy, ileoanal anastomosis, creation of ileal reservoir (S or J), with or without loop ileostomy
45114	Proctectomy, partial, with anastomosis; abdominal and transsacral approach
45116	Proctectomy, partial, with anastomosis; transsacral approach only (Kraske type)

45119	Proctectomy, combined abdominoperineal pull-through procedure (eg, colo-anal anastomosis), with creation of colonic reservoir (eg, J-pouch), with diverting enterostomy when performed
45120	Proctectomy, complete (for congenital megacolon), abdominal and perineal approach; with pull-through procedure and anastomosis (eg, Swenson, Duhamel, or Soave type operation)
45121	Proctectomy, complete (for congenital megacolon), abdominal and perineal approach; with subtotal or total colectomy, with multiple biopsies
45123	Proctectomy, partial, without anastomosis, perineal approach
45126	Pelvic exenteration for colorectal malignancy, with proctectomy (with or without colostomy), with removal of bladder and ureteral transplantations, and/or hysterectomy, or cervicectomy, with or without removal of tube(s), with or without removal of ovary(s), or any combination thereof"
45130	Excision of rectal procidentia, with anastomosis; perineal approach
45135	Excision of rectal procidentia, with anastomosis; abdominal and perineal approach
45136	Excision of ileoanal reservoir with ileostomy
45395	Laparoscopy, surgical; proctectomy, complete, combined abdominoperineal, with colostomy
45397	Laparoscopy, surgical; proctectomy, combined abdominoperineal pull-through procedure (eg, colo-anal anastomosis), with creation of colonic reservoir (eg, J-pouch), with diverting enterostomy, when performed
45400	Laparoscopy, surgical; proctopexy (for prolapse)
45402	Laparoscopy, surgical; proctopexy (for prolapse), with sigmoid resection
45540	Proctopexy (eg, for prolapse); abdominal approach
45550	Proctopexy (eg, for prolapse); with sigmoid resection, abdominal approach
45562	Exploration, repair, and presacral drainage for rectal injury
45563	Exploration, repair, and presacral drainage for rectal injury; with colostomy
45800	Closure of rectovesical fistula
45805	Closure of rectovesical fistula; with colostomy
45820	Closure of rectourethral fistula
45825	Closure of rectourethral fistula; with colostomy

46705	Anoplasty, plastic operation for stricture; infant
46710	Repair of ileoanal pouch fistula/sinus (eg, perineal or vaginal), pouch advancement; transperineal approach
46712	Repair of ileoanal pouch fistula/sinus (eg, perineal or vaginal), pouch advancement; combined transperineal and transabdominal approach
46715	Repair of low imperforate anus; with anoperineal fistula (cut-back procedure)
46716	Repair of low imperforate anus; with transposition of anoperineal or anovestibular fistula
46730	Repair of high imperforate anus without fistula; perineal or sacroperineal approach
46735	Repair of high imperforate anus without fistula; combined transabdominal and sacroperineal approaches
46740	Repair of high imperforate anus with rectourethral or rectovaginal fistula; perineal or sacroperineal approach
46742	Repair of high imperforate anus with rectourethral or rectovaginal fistula; combined transabdominal and sacroperineal approaches
46744	Repair of cloacal anomaly by anorectovaginoplasty and urethroplasty, sacroperineal approach
46746	Repair of cloacal anomaly by anorectovaginoplasty and urethroplasty, combined abdominal and sacroperineal approach
46748	Repair of cloacal anomaly by anorectovaginoplasty and urethroplasty, combined abdominal and sacroperineal approach; with vaginal lengthening by intestinal graft or pedicle flaps
46751	Sphincteroplasty, anal, for incontinence or prolapse; child
47010	Hepatotomy, for open drainage of abscess or cyst, 1 or 2 stages
47015	Laparotomy, with aspiration and/or injection of hepatic parasitic (eg, amoebic or echinococcal) cyst(s) or abscess(es)
47100	Biopsy of liver, wedge
47120	Hepatectomy, resection of liver; partial lobectomy
47122	Hepatectomy, resection of liver; trisegmentectomy
47125	Hepatectomy, resection of liver; total left lobectomy

47130	Hepatectomy, resection of liver; total right lobectomy
47133	Donor hepatectomy (including cold preservation), from cadaver donor
47135	Liver allotransplantation, orthotopic, partial or whole, from cadaver or living donor, any age
47140	Donor hepatectomy (including cold preservation), from living donor; left lateral segment only (segments II and III)
47141	Donor hepatectomy (including cold preservation), from living donor; total left lobectomy (segments II, III and IV)
47142	Donor hepatectomy (including cold preservation), from living donor; total right lobectomy (segments V, VI, VII and VIII)
47143	Backbench standard preparation of cadaver donor whole liver graft prior to allotransplantation, including cholecystectomy, if necessary, and dissection and removal of surrounding soft tissues to prepare the vena cava, portal vein, hepatic artery, and common bile duct for implantation; without trisegment or lobe split"
47144	Backbench standard preparation of cadaver donor whole liver graft prior to allotransplantation, including cholecystectomy, if necessary, and dissection and removal of surrounding soft tissues to prepare the vena cava, portal vein, hepatic artery, and common bile duct for implantation; with trisegment split of whole liver graft into 2 partial liver grafts (ie, left lateral segment [segments II and III] and right trisegment [segments I and IV through VIII])"
47145	Backbench standard preparation of cadaver donor whole liver graft prior to allotransplantation, including cholecystectomy, if necessary, and dissection and removal of surrounding soft tissues to prepare the vena cava, portal vein, hepatic artery, and common bile duct for implantation; with lobe split of whole liver graft into 2 partial liver grafts (ie, left lobe [segments II, III, and IV] and right lobe [segments I and V through VIII])"
47146	Backbench reconstruction of cadaver or living donor liver graft prior to allotransplantation; venous anastomosis, each
47147	Backbench reconstruction of cadaver or living donor liver graft prior to allotransplantation; arterial anastomosis, each

47300	Marsupialization of cyst or abscess of liver
47350	Management of liver hemorrhage; simple suture of liver wound or injury
47360	Management of liver hemorrhage; complex suture of liver wound or injury, with or without hepatic artery ligation
47361	Management of liver hemorrhage; exploration of hepatic wound, extensive debridement, coagulation and/or suture, with or without packing of liver
47362	Management of liver hemorrhage; re-exploration of hepatic wound for removal of packing
47380	Ablation, open, of 1 or more liver tumor(s); radiofrequency
47381	Ablation, open, of 1 or more liver tumor(s); cryosurgical
47400	Hepaticotomy or hepaticostomy with exploration, drainage, or removal of calculus
47420	Choledochotomy or choledochostomy with exploration, drainage, or removal of calculus, with or without cholecystotomy; without transduodenal sphincterotomy or sphincteroplasty
47425	Choledochotomy or choledochostomy with exploration, drainage, or removal of calculus, with or without cholecystotomy; with transduodenal sphincterotomy or sphincteroplasty
47460	Transduodenal sphincterotomy or sphincteroplasty, with or without transduodenal extraction of calculus (separate procedure)
47480	Cholecystotomy or cholecystostomy, open, with exploration, drainage, or removal of calculus (separate procedure)
47550	Biliary endoscopy, intraoperative (choledochoscopy) (List separately in addition to code for primary procedure)
47570	Laparoscopy, surgical; cholecystoenterostomy
47600	Cholecystectomy
47605	Cholecystectomy; with cholangiography
47610	Cholecystectomy with exploration of common duct
47612	Cholecystectomy with exploration of common duct; with choledochoenterostomy
47620	Cholecystectomy with exploration of common duct; with transduodenal sphincterotomy or sphincteroplasty, with or without cholangiography

47700	Exploration for congenital atresia of bile ducts, without repair, with or without liver biopsy, with or without cholangiography
47701	Portoenterostomy (eg, Kasai procedure)
47711	Excision of bile duct tumor, with or without primary repair of bile duct; extrahepatic
47712	Excision of bile duct tumor, with or without primary repair of bile duct; intrahepatic
47715	Excision of choledochal cyst
47720	Cholecystoenterostomy; direct
47721	Cholecystoenterostomy; with gastroenterostomy
47740	Cholecystoenterostomy; Roux-en-Y
47741	Cholecystoenterostomy; Roux-en-Y with gastroenterostomy
47760	Anastomosis, of extrahepatic biliary ducts and gastrointestinal tract
47765	Anastomosis, of intrahepatic ducts and gastrointestinal tract
47780	Anastomosis, Roux-en-Y, of extrahepatic biliary ducts and gastrointestinal tract
47785	Anastomosis, Roux-en-Y, of intrahepatic biliary ducts and gastrointestinal tract
47800	Reconstruction, plastic, of extrahepatic biliary ducts with end-to-end anastomosis
47801	Placement of choledochal stent
47802	U-tube hepaticoenterostomy
47900	Suture of extrahepatic biliary duct for pre-existing injury (separate procedure)
48000	Placement of drains, peripancreatic, for acute pancreatitis
48001	Placement of drains, peripancreatic, for acute pancreatitis; with cholecystostomy, gastrostomy, and jejunostomy
48020	Removal of pancreatic calculus
48100	Biopsy of pancreas, open (eg, fine needle aspiration, needle core biopsy, wedge biopsy)
48105	Resection or debridement of pancreas and peripancreatic tissue for acute necrotizing pancreatitis
48120	Excision of lesion of pancreas (eg, cyst, adenoma)
48140	Pancreatectomy, distal subtotal, with or without splenectomy; without pancreaticojejunostomy
48145	Pancreatectomy, distal subtotal, with or without splenectomy; with pancreaticojejunostomy

48146	Pancreatectomy, distal, near-total with preservation of duodenum (Child-type procedure)
48148	Excision of ampulla of Vater
48150	Pancreatectomy, proximal subtotal with total duodenectomy, partial gastrectomy, choledochoenterostomy and gastrojejunostomy (Whipple-type procedure); with pancreatojejunostomy
48152	Pancreatectomy, proximal subtotal with total duodenectomy, partial gastrectomy, choledochoenterostomy and gastrojejunostomy (Whipple-type procedure); without pancreatojejunostomy
48153	Pancreatectomy, proximal subtotal with near-total duodenectomy, choledochoenterostomy and duodenojejunostomy (pylorus-sparing, Whipple-type procedure); with pancreatojejunostomy
48154	Pancreatectomy, proximal subtotal with near-total duodenectomy, choledochoenterostomy and duodenojejunostomy (pylorus-sparing, Whipple-type procedure); without pancreatojejunostomy
48155	Pancreatectomy, total
48400	Injection procedure for intraoperative pancreatography (List separately in addition to code for primary procedure)
48500	Marsupialization of pancreatic cyst
48510	External drainage, pseudocyst of pancreas, open
48520	Internal anastomosis of pancreatic cyst to gastrointestinal tract; direct
48540	Internal anastomosis of pancreatic cyst to gastrointestinal tract; Roux-en-Y
48545	Pancreatorrhaphy for injury
48547	Duodenal exclusion with gastrojejunostomy for pancreatic injury
48548	Pancreaticojejunostomy, side-to-side anastomosis (Puestow-type operation)
48551	Backbench standard preparation of cadaver donor pancreas allograft prior to transplantation, including dissection of allograft from surrounding soft tissues, splenectomy, duodenotomy, ligation of bile duct, ligation of mesenteric vessels, and Y-graft arterial anastomoses from iliac artery to superior mesenteric artery and to splenic artery"

48552	Backbench reconstruction of cadaver donor pancreas allograft prior to transplantation, venous anastomosis, each
48554	Transplantation of pancreatic allograft
48556	Removal of transplanted pancreatic allograft
49000	Exploratory laparotomy, exploratory celiotomy with or without biopsy(s) (separate procedure)
49002	Reopening of recent laparotomy
49010	Exploration, retroperitoneal area with or without biopsy(s) (separate procedure)
49013	Preperitoneal pelvic packing for hemorrhage associated with pelvic trauma, including local exploration
49014	Re-exploration of pelvic wound with removal of preperitoneal pelvic packing, including repacking, when performed
49020	Drainage of peritoneal abscess or localized peritonitis, exclusive of appendiceal abscess, open
49040	Drainage of subdiaphragmatic or subphrenic abscess, open
49060	Drainage of retroperitoneal abscess, open
49062	Drainage of extraperitoneal lymphocele to peritoneal cavity, open
49203	Excision or destruction, open, intra-abdominal tumors, cysts or endometriomas, 1 or more peritoneal, mesenteric, or retroperitoneal primary or secondary tumors; largest tumor 5 cm diameter or less
49204	Excision or destruction, open, intra-abdominal tumors, cysts or endometriomas, 1 or more peritoneal, mesenteric, or retroperitoneal primary or secondary tumors; largest tumor 5.1-10.0 cm diameter
49205	Excision or destruction, open, intra-abdominal tumors, cysts or endometriomas, 1 or more peritoneal, mesenteric, or retroperitoneal primary or secondary tumors; largest tumor greater than 10.0 cm diameter
49215	Excision of presacral or sacrococcygeal tumor
49255	Omentectomy, epiploectomy, resection of omentum (separate procedure)

49412	Placement of interstitial device(s) for radiation therapy guidance (eg, fiducial markers, dosimeter), open, intra-abdominal, intrapelvic, and/or retroperitoneum, including image guidance, if performed, single or multiple (List separately in addition to code for primary procedure)"
49425	Insertion of peritoneal-venous shunt
49428	Ligation of peritoneal-venous shunt
49605	Repair of large omphalocele or gastroschisis; with or without prosthesis
49606	Repair of large omphalocele or gastroschisis; with removal of prosthesis, final reduction and closure, in operating room
49610	Repair of omphalocele (Gross type operation); first stage
49611	Repair of omphalocele (Gross type operation); second stage
49900	Suture, secondary, of abdominal wall for evisceration or dehiscence
49904	Omental flap, extra-abdominal (eg, for reconstruction of sternal and chest wall defects)
49905	Omental flap, intra-abdominal (List separately in addition to code for primary procedure)
49906	Free omental flap with microvascular anastomosis
50010	Renal exploration, not necessitating other specific procedures
50040	Nephrostomy, nephrotomy with drainage
50045	Nephrotomy, with exploration
50060	Nephrolithotomy; removal of calculus
50065	Incision of kidney
50070	Incision of kidney
50075	Removal of kidney stone
50065	Nephrolithotomy; secondary surgical operation for calculus
50070	Nephrolithotomy; complicated by congenital kidney abnormality
50075	Nephrolithotomy; removal of large staghorn calculus filling renal pelvis and calyces (including anatomic pyelolithotomy)
50100	Transection or repositioning of aberrant renal vessels (separate procedure)
50120	Pyelotomy; with exploration

50125	Pyelotomy; with drainage, pyelostomy
50130	Pyelotomy; with removal of calculus (pyelolithotomy, pelviolithotomy, including coagulum pyelolithotomy)
50135	Pyelotomy; complicated (eg, secondary operation, congenital kidney abnormality)
50205	Renal biopsy; by surgical exposure of kidney
50220	Nephrectomy, including partial ureterectomy, any open approach including rib resection
50225	Nephrectomy, including partial ureterectomy, any open approach including rib resection; complicated because of previous surgery on same kidney
50230	Nephrectomy, including partial ureterectomy, any open approach including rib resection; radical, with regional lymphadenectomy and/or vena caval thrombectomy
50234	Nephrectomy with total ureterectomy and bladder cuff; through same incision
50236	Nephrectomy with total ureterectomy and bladder cuff; through separate incision
50240	Nephrectomy, partial
50250	Ablation, open, 1 or more renal mass lesion(s), cryosurgical, including intraoperative ultrasound guidance and monitoring, if performed
50280	Excision or unroofing of cyst(s) of kidney
50290	Excision of perinephric cyst
50300	Donor nephrectomy (including cold preservation); from cadaver donor, unilateral or bilateral
50320	Donor nephrectomy (including cold preservation); open, from living donor
50323	Backbench standard preparation of cadaver donor renal allograft prior to transplantation, including dissection and removal of perinephric fat, diaphragmatic and retroperitoneal attachments, excision of adrenal gland, and preparation of ureter(s), renal vein(s), and renal artery(s), ligating branches, as necessary"
50325	Backbench standard preparation of living donor renal allograft (open or laparoscopic) prior to transplantation, including dissection and removal of perinephric fat and preparation of ureter(s), renal vein(s), and renal artery(s), ligating branches, as necessary"

50327	Backbench reconstruction of cadaver or living donor renal allograft prior to transplantation; venous anastomosis, each
50328	Backbench reconstruction of cadaver or living donor renal allograft prior to transplantation; arterial anastomosis, each
50329	Backbench reconstruction of cadaver or living donor renal allograft prior to transplantation; ureteral anastomosis, each
50340	Recipient nephrectomy (separate procedure)
50360	Renal allotransplantation, implantation of graft; without recipient nephrectomy
50365	Renal allotransplantation, implantation of graft; with recipient nephrectomy
50370	Removal of transplanted renal allograft
50380	Renal autotransplantation, reimplantation of kidney
50400	Pyeloplasty (Foley Y-pyeloplasty), plastic operation on renal pelvis, with or without plastic operation on ureter, nephropexy, nephrostomy, pyelostomy, or ureteral splinting; simple
50405	Pyeloplasty (Foley Y-pyeloplasty), plastic operation on renal pelvis, with or without plastic operation on ureter, nephropexy, nephrostomy, pyelostomy, or ureteral splinting; complicated (congenital kidney abnormality, secondary pyeloplasty, solitary kidney, calycolplasty)"
50500	Nephrorrhaphy, suture of kidney wound or injury
50520	Closure of nephrocutaneous or pyelocutaneous fistula
50525	Closure of nephrovisceral fistula (eg, renocolic), including visceral repair; abdominal approach
50526	Closure of nephrovisceral fistula (eg, renocolic), including visceral repair; thoracic approach
50547	Laparoscopy, surgical; donor nephrectomy (including cold preservation), from living donor
50548	Laparoscopy, surgical; nephrectomy with total ureterectomy
50600	Ureterotomy with exploration or drainage (separate procedure)
50605	Ureterotomy for insertion of indwelling stent, all types
50610	Ureterolithotomy; upper one-third of ureter
50620	Ureterolithotomy; middle one-third of ureter
50630	Ureterolithotomy; lower one-third of ureter

50650	Ureterectomy, with bladder cuff (separate procedure)
50660	Ureterectomy, total, ectopic ureter, combination abdominal, vaginal and/or perineal approach
50700	Ureteroplasty, plastic operation on ureter (eg, stricture)
50715	Ureterolysis, with or without repositioning of ureter for retroperitoneal fibrosis
50722	Ureterolysis for ovarian vein syndrome
50725	Ureterolysis for retrocaval ureter, with reanastomosis of upper urinary tract or vena cava
50728	Revision of urinary-cutaneous anastomosis (any type urostomy); with repair of fascial defect and hernia
50740	Ureteropyelostomy, anastomosis of ureter and renal pelvis
50750	Ureterocalycostomy, anastomosis of ureter to renal calyx
50760	Ureteroureterostomy
50770	Transureteroureterostomy, anastomosis of ureter to contralateral ureter
50780	Ureteroneocystostomy; anastomosis of single ureter to bladder
50782	Ureteroneocystostomy; anastomosis of duplicated ureter to bladder
50783	Ureteroneocystostomy; with extensive ureteral tailoring
50785	Ureteroneocystostomy; with vesico-psoas hitch or bladder flap
50800	Ureteroenterostomy, direct anastomosis of ureter to intestine
50810	Ureterosigmoidostomy, with creation of sigmoid bladder and establishment of abdominal or perineal colostomy, including intestine anastomosis
50815	Ureterocolon conduit, including intestine anastomosis
50820	Ureteroileal conduit (ileal bladder), including intestine anastomosis (Bricker operation)
50825	Continent diversion, including intestine anastomosis using any segment of small and/or large intestine (Kock pouch or Camey enterocystoplasty)
50830	Urinary undiversion (eg, taking down of ureteroileal conduit, ureterosigmoidostomy or ureteroenterostomy with ureteroureterostomy or ureteroneocystostomy)
50840	Replacement of all or part of ureter by intestine segment, including intestine anastomosis
50845	Cutaneous appendico-vesicostomy

50860	Ureterostomy, transplantation of ureter to skin
50900	Ureterorrhaphy, suture of ureter (separate procedure)
50920	Closure of ureterocutaneous fistula
50930	Closure of ureterovisceral fistula (including visceral repair)
50940	Deligation of ureter
51525	Cystotomy; for excision of bladder diverticulum, single or multiple (separate procedure)
51530	Cystotomy; for excision of bladder tumor
51550	Cystectomy, partial; simple
51555	Cystectomy, partial; complicated (eg, postradiation, previous surgery, difficult location)
51565	Cystectomy, partial, with reimplantation of ureter(s) into bladder (ureteroneocystostomy)
51570	Cystectomy, complete; (separate procedure)
51575	Cystectomy, complete; with bilateral pelvic lymphadenectomy, including external iliac, hypogastric, and obturator nodes
51580	Cystectomy, complete, with ureterosigmoidostomy or ureterocutaneous transplantations
51585	Cystectomy, complete, with ureterosigmoidostomy or ureterocutaneous transplantations; with bilateral pelvic lymphadenectomy, including external iliac, hypogastric, and obturator nodes
51590	Cystectomy, complete, with ureteroileal conduit or sigmoid bladder, including intestine anastomosis
51595	Cystectomy, complete, with ureteroileal conduit or sigmoid bladder, including intestine anastomosis; with bilateral pelvic lymphadenectomy, including external iliac, hypogastric, and obturator nodes
51596	Cystectomy, complete, with continent diversion, any open technique, using any segment of small and/or large intestine to construct neobladder
51597	Pelvic exenteration, complete, for vesical, prostatic or urethral malignancy, with removal of bladder and ureteral transplantations, with or without hysterectomy and/or abdominoperineal resection of rectum and colon and colostomy, or any combination thereof"

51800	Cystoplasty or cystourethroplasty, plastic operation on bladder and/or vesical neck (anterior Y-plasty, vesical fundus resection), any procedure, with or without wedge resection of posterior vesical neck
51820	Cystourethroplasty with unilateral or bilateral ureteroneocystostomy
51840	Anterior vesicourethropexy, or urethropexy (eg, Marshall-Marchetti-Krantz, Burch); simple
51841	Anterior vesicourethropexy, or urethropexy (eg, Marshall-Marchetti-Krantz, Burch); complicated (eg, secondary repair)
51865	Cystorrhaphy, suture of bladder wound, injury or rupture; complicated
51900	Closure of vesicovaginal fistula, abdominal approach
51920	Closure of vesicouterine fistula
51925	Closure of vesicouterine fistula; with hysterectomy
51940	Closure, exstrophy of bladder
51960	Enterocystoplasty, including intestinal anastomosis
51980	Cutaneous vesicostomy
53415	Urethroplasty, transpubic or perineal, 1-stage, for reconstruction or repair of prostatic or membranous urethra
53448	Removal and replacement of inflatable urethral/bladder neck sphincter including pump, reservoir, and cuff through an infected field at the same operative session including irrigation and debridement of infected tissue
54125	Amputation of penis; complete
54130	Amputation of penis, radical; with bilateral inguinofemoral lymphadenectomy
54135	Amputation of penis, radical; in continuity with bilateral pelvic lymphadenectomy, including external iliac, hypogastric and obturator nodes
54390	Plastic operation on penis for epispadias distal to external sphincter; with exstrophy of bladder
54430	Corpora cavernosa-corpora spongiosum shunt (priapism operation), unilateral or bilateral
54438	Replantation, penis, complete amputation including urethral repair
55605	Vesiculotomy; complicated

55650	Vesiculectomy, any approach
55801	Prostatectomy, perineal, subtotal (including control of postoperative bleeding, vasectomy, meatotomy, urethral calibration and/or dilation, and internal urethrotomy)
55810	Prostatectomy, perineal radical
55812	Prostatectomy, perineal radical; with lymph node biopsy(s) (limited pelvic lymphadenectomy)
55815	Prostatectomy, perineal radical; with bilateral pelvic lymphadenectomy, including external iliac, hypogastric and obturator nodes
55821	Prostatectomy (including control of postoperative bleeding, vasectomy, meatotomy, urethral calibration and/or dilation, and internal urethrotomy); suprapubic, subtotal, 1 or 2 stages
55831	Prostatectomy (including control of postoperative bleeding, vasectomy, meatotomy, urethral calibration and/or dilation, and internal urethrotomy); retropubic, subtotal
55840	Prostatectomy, retropubic radical, with or without nerve sparing
55842	Prostatectomy, retropubic radical, with or without nerve sparing; with lymph node biopsy(s) (limited pelvic lymphadenectomy)
55845	Prostatectomy, retropubic radical, with or without nerve sparing; with bilateral pelvic lymphadenectomy, including external iliac, hypogastric, and obturator nodes
55862	Exposure of prostate, any approach, for insertion of radioactive substance; with lymph node biopsy(s) (limited pelvic lymphadenectomy)
55865	Exposure of prostate, any approach, for insertion of radioactive substance; with bilateral pelvic lymphadenectomy, including external iliac, hypogastric and obturator nodes
56630	Vulvectomy, radical, partial
56631	Vulvectomy, radical, partial; with unilateral inguinofemoral lymphadenectomy
56632	Vulvectomy, radical, partial; with bilateral inguinofemoral lymphadenectomy
56633	Vulvectomy, radical, complete
56634	Vulvectomy, radical, complete; with unilateral inguinofemoral lymphadenectomy
56637	Vulvectomy, radical, complete; with bilateral inguinofemoral lymphadenectomy
56640	Vulvectomy, radical, complete, with inguinofemoral, iliac, and pelvic lymphadenectomy

57110	Vaginectomy, complete removal of vaginal wall
57111	Vaginectomy, complete removal of vaginal wall; with removal of paravaginal tissue (radical vaginectomy)
57270	Repair of enterocele, abdominal approach (separate procedure)
57280	Colpopexy, abdominal approach
57296	Revision (including removal) of prosthetic vaginal graft; open abdominal approach
57305	Closure of rectovaginal fistula; abdominal approach
57307	Closure of rectovaginal fistula; abdominal approach, with concomitant colostomy
57308	Closure of rectovaginal fistula; transperineal approach, with perineal body reconstruction, with or without levator plication
57311	Closure of urethrovaginal fistula; with bulboavernosus transplant
57531	Radical trachelectomy, with bilateral total pelvic lymphadenectomy and para-aortic lymph node sampling biopsy, with or without removal of tube(s), with or without removal of ovary(s)
57540	Excision of cervical stump, abdominal approach
57545	Excision of cervical stump, abdominal approach; with pelvic floor repair
58140	Myomectomy, excision of fibroid tumor(s) of uterus, 1 to 4 intramural myoma(s) with total weight of 250 g or less and/or removal of surface myomas; abdominal approach
58146	Myomectomy, excision of fibroid tumor(s) of uterus, 5 or more intramural myomas and/or intramural myomas with total weight greater than 250 g, abdominal approach
58150	Total abdominal hysterectomy (corpus and cervix), with or without removal of tube(s), with or without removal of ovary(s)
58152	Total abdominal hysterectomy (corpus and cervix), with or without removal of tube(s), with or without removal of ovary(s); with colpo-urethrocystopexy (eg, Marshall-Marchetti-Krantz, Burch)
58180	Supracervical abdominal hysterectomy (subtotal hysterectomy), with or without removal of tube(s), with or without removal of ovary(s)
58200	Total abdominal hysterectomy, including partial vaginectomy, with para-aortic and pelvic lymph node sampling, with or without removal of tube(s), with or without removal of ovary(s)

58210	Radical abdominal hysterectomy, with bilateral total pelvic lymphadenectomy and para-aortic lymph node sampling (biopsy), with or without removal of tube(s), with or without removal of ovary(s)
58240	Pelvic exenteration for gynecologic malignancy, with total abdominal hysterectomy or cervicectomy, with or without removal of tube(s), with or without removal of ovary(s), with removal of bladder and ureteral transplantations, and/or abdominoperineal resection of rectum and colon and colostomy, or any combination thereof"
58267	Vaginal hysterectomy, for uterus 250 g or less; with colpo-urethrocystopexy (Marshall-Marchetti-Krantz type, Pereyra type) with or without endoscopic control
58275	Vaginal hysterectomy, with total or partial vaginectomy
58280	Vaginal hysterectomy, with total or partial vaginectomy; with repair of enterocele
58285	Vaginal hysterectomy, radical (Schauta type operation)
58400	Uterine suspension, with or without shortening of round ligaments, with or without shortening of sacrouterine ligaments; (separate procedure)
58410	Uterine suspension, with or without shortening of round ligaments, with or without shortening of sacrouterine ligaments; with presacral sympathectomy
58520	Hysterorrhaphy, repair of ruptured uterus (nonobstetrical)
58540	Hysteroplasty, repair of uterine anomaly (Strassman type)
58548	Laparoscopy, surgical, with radical hysterectomy, with bilateral total pelvic lymphadenectomy and para-aortic lymph node sampling (biopsy), with removal of tube(s) and ovary(s), if performed
58575	Laparoscopy, surgical, total hysterectomy for resection of malignancy (tumor debulking), with omentectomy including salpingo-oophorectomy, unilateral or bilateral, when performed
58605	Ligation or transection of fallopian tube(s), abdominal or vaginal approach, postpartum, unilateral or bilateral, during same hospitalization (separate procedure)

58611	Ligation or transection of fallopian tube(s) when done at the time of cesarean delivery or intra-abdominal surgery (not a separate procedure) (List separately in addition to code for primary procedure)
58700	Salpingectomy, complete or partial, unilateral or bilateral (separate procedure)
58720	Salpingo-oophorectomy, complete or partial, unilateral or bilateral (separate procedure)
58740	Lysis of adhesions (salpingolysis, ovariolysis)
58750	Tubotubal anastomosis
58752	Tubouterine implantation
58760	Fimbrioplasty
58822	Drainage of ovarian abscess; abdominal approach
58825	Transposition, ovary(s)
58940	Oophorectomy, partial or total, unilateral or bilateral
58943	Oophorectomy, partial or total, unilateral or bilateral; for ovarian, tubal or primary peritoneal malignancy, with para-aortic and pelvic lymph node biopsies, peritoneal washings, peritoneal biopsies, diaphragmatic assessments, with or without salpingectomy(s), with or without omentectomy"
58950	Resection (initial) of ovarian, tubal or primary peritoneal malignancy with bilateral salpingo-oophorectomy and omentectomy
58951	Resection (initial) of ovarian, tubal or primary peritoneal malignancy with bilateral salpingo-oophorectomy and omentectomy; with total abdominal hysterectomy, pelvic and limited para-aortic lymphadenectomy
58952	Resection (initial) of ovarian, tubal or primary peritoneal malignancy with bilateral salpingo-oophorectomy and omentectomy; with radical dissection for debulking (ie, radical excision or destruction, intra-abdominal or retroperitoneal tumors)
58953	Bilateral salpingo-oophorectomy with omentectomy, total abdominal hysterectomy and radical dissection for debulking

58954	Bilateral salpingo-oophorectomy with omentectomy, total abdominal hysterectomy and radical dissection for debulking; with pelvic lymphadenectomy and limited para-aortic lymphadenectomy
58956	Bilateral salpingo-oophorectomy with total omentectomy, total abdominal hysterectomy for malignancy
58957	Resection (tumor debulking) of recurrent ovarian, tubal, primary peritoneal, uterine malignancy (intra-abdominal, retroperitoneal tumors), with omentectomy, if performed
58958	Resection (tumor debulking) of recurrent ovarian, tubal, primary peritoneal, uterine malignancy (intra-abdominal, retroperitoneal tumors), with omentectomy, if performed; with pelvic lymphadenectomy and limited para-aortic lymphadenectomy
58960	Laparotomy, for staging or restaging of ovarian, tubal, or primary peritoneal malignancy (second look), with or without omentectomy, peritoneal washing, biopsy of abdominal and pelvic peritoneum, diaphragmatic assessment with pelvic and limited para-aortic lymphadenectomy"
59120	Surgical treatment of ectopic pregnancy; tubal or ovarian, requiring salpingectomy and/or oophorectomy, abdominal or vaginal approach
59121	Surgical treatment of ectopic pregnancy; tubal or ovarian, without salpingectomy and/or oophorectomy
59130	Surgical treatment of ectopic pregnancy; abdominal pregnancy
59136	Surgical treatment of ectopic pregnancy; interstitial, uterine pregnancy with partial resection of uterus
59140	Surgical treatment of ectopic pregnancy; cervical, with evacuation
59325	Cerclage of cervix, during pregnancy; abdominal
59350	Hysterorrhaphy of ruptured uterus
59514	Cesarean delivery only
59525	Subtotal or total hysterectomy after cesarean delivery (List separately in addition to code for primary procedure)
59620	Cesarean delivery only, following attempted vaginal delivery after previous cesarean delivery
59830	Treatment of septic abortion, completed surgically

59850	Induced abortion, by 1 or more intra-amniotic injections (amniocentesis-injections), including hospital admission and visits, delivery of fetus and secundines
59851	Induced abortion, by 1 or more intra-amniotic injections (amniocentesis-injections), including hospital admission and visits, delivery of fetus and secundines; with dilation and curettage and/or evacuation
59852	Induced abortion, by 1 or more intra-amniotic injections (amniocentesis-injections), including hospital admission and visits, delivery of fetus and secundines; with hysterotomy (failed intra-amniotic injection)
59855	Induced abortion, by 1 or more vaginal suppositories (eg, prostaglandin) with or without cervical dilation (eg, laminaria), including hospital admission and visits, delivery of fetus and secundines
59856	Induced abortion, by 1 or more vaginal suppositories (eg, prostaglandin) with or without cervical dilation (eg, laminaria), including hospital admission and visits, delivery of fetus and secundines; with dilation and curettage and/or evacuation
59857	Induced abortion, by 1 or more vaginal suppositories (eg, prostaglandin) with or without cervical dilation (eg, laminaria), including hospital admission and visits, delivery of fetus and secundines; with hysterotomy (failed medical evacuation)
60254	Thyroidectomy, total or subtotal for malignancy; with radical neck dissection
60270	Thyroidectomy, including substernal thyroid; sternal split or transthoracic approach
60505	Parathyroidectomy or exploration of parathyroid(s); with mediastinal exploration, sternal split or transthoracic approach
60521	Thymectomy, partial or total; sternal split or transthoracic approach, without radical mediastinal dissection (separate procedure)
60522	Thymectomy, partial or total; sternal split or transthoracic approach, with radical mediastinal dissection (separate procedure)
60540	Adrenalectomy, partial or complete, or exploration of adrenal gland with or without biopsy, transabdominal, lumbar or dorsal (separate procedure)

60545	Adrenalectomy, partial or complete, or exploration of adrenal gland with or without biopsy, transabdominal, lumbar or dorsal (separate procedure); with excision of adjacent retroperitoneal tumor
60600	Excision of carotid body tumor; without excision of carotid artery
60605	Excision of carotid body tumor; with excision of carotid artery
60650	Laparoscopy, surgical, with adrenalectomy, partial or complete, or exploration of adrenal gland with or without biopsy, transabdominal, lumbar or dorsal
61105	Twist drill hole for subdural or ventricular puncture
61107	Twist drill hole(s) for subdural, intracerebral, or ventricular puncture; for implanting ventricular catheter, pressure recording device, or other intracerebral monitoring device
61108	Twist drill hole(s) for subdural, intracerebral, or ventricular puncture; for evacuation and/or drainage of subdural hematoma
61120	Burr hole(s) for ventricular puncture (including injection of gas, contrast media, dye, or radioactive material)
61140	Burr hole(s) or trephine; with biopsy of brain or intracranial lesion
61150	Burr hole(s) or trephine; with drainage of brain abscess or cyst
61151	Burr hole(s) or trephine; with subsequent tapping (aspiration) of intracranial abscess or cyst
61154	Burr hole(s) with evacuation and/or drainage of hematoma, extradural or subdural
61156	Burr hole(s); with aspiration of hematoma or cyst, intracerebral
61210	Burr hole(s); for implanting ventricular catheter, reservoir, EEG electrode(s), pressure recording device, or other cerebral monitoring device (separate procedure)
61250	Burr hole(s) or trephine, supratentorial, exploratory, not followed by other surgery
61253	Burr hole(s) or trephine, infratentorial, unilateral or bilateral
61304	Craniectomy or craniotomy, exploratory; supratentorial
61305	Craniectomy or craniotomy, exploratory; infratentorial (posterior fossa)
61312	Craniectomy or craniotomy for evacuation of hematoma, supratentorial; extradural or subdural
61313	Craniectomy or craniotomy for evacuation of hematoma, supratentorial; intracerebral

61314	Craniectomy or craniotomy for evacuation of hematoma, infratentorial; extradural or subdural
61315	Craniectomy or craniotomy for evacuation of hematoma, infratentorial; intracerebellar
61316	Incision and subcutaneous placement of cranial bone graft (List separately in addition to code for primary procedure)
61320	Craniectomy or craniotomy, drainage of intracranial abscess; supratentorial
61321	Craniectomy or craniotomy, drainage of intracranial abscess; infratentorial
61322	Craniectomy or craniotomy, decompressive, with or without duraplasty, for treatment of intracranial hypertension, without evacuation of associated intraparenchymal hematoma; without lobectomy
61323	Craniectomy or craniotomy, decompressive, with or without duraplasty, for treatment of intracranial hypertension, without evacuation of associated intraparenchymal hematoma; with lobectomy
61333	Exploration of orbit (transcranial approach), with removal of lesion
61340	Subtemporal cranial decompression (pseudotumor cerebri, slit ventricle syndrome)
61343	Craniectomy, suboccipital with cervical laminectomy for decompression of medulla and spinal cord, with or without dural graft (eg, Arnold-Chiari malformation)
61345	Other cranial decompression, posterior fossa
61450	Craniectomy, subtemporal, for section, compression, or decompression of sensory root of gasserian ganglion
61458	Craniectomy, suboccipital; for exploration or decompression of cranial nerves
61460	Craniectomy, suboccipital; for section of 1 or more cranial nerves
61500	Craniectomy; with excision of tumor or other bone lesion of skull
61501	Craniectomy; for osteomyelitis
61510	Craniectomy, trephination, bone flap craniotomy; for excision of brain tumor, supratentorial, except meningioma
61512	Craniectomy, trephination, bone flap craniotomy; for excision of meningioma, supratentorial
61514	Craniectomy, trephination, bone flap craniotomy; for excision of brain abscess, supratentorial

61516	Craniectomy, trephination, bone flap craniotomy; for excision or fenestration of cyst, supratentorial
61517	Implantation of brain intracavitary chemotherapy agent (List separately in addition to code for primary procedure)
61518	Craniectomy for excision of brain tumor, infratentorial or posterior fossa; except meningioma, cerebellopontine angle tumor, or midline tumor at base of skull
61519	Craniectomy for excision of brain tumor, infratentorial or posterior fossa; meningioma
61520	Craniectomy for excision of brain tumor, infratentorial or posterior fossa; cerebellopontine angle tumor
61521	Craniectomy for excision of brain tumor, infratentorial or posterior fossa; midline tumor at base of skull
61522	Craniectomy, infratentorial or posterior fossa; for excision of brain abscess
61524	Craniectomy, infratentorial or posterior fossa; for excision or fenestration of cyst
61526	Craniectomy, bone flap craniotomy, transtemporal (mastoid) for excision of cerebellopontine angle tumor
61530	Craniectomy, bone flap craniotomy, transtemporal (mastoid) for excision of cerebellopontine angle tumor; combined with middle/posterior fossa craniotomy/craniectomy
61531	Subdural implantation of strip electrodes through 1 or more burr or trephine hole(s) for long-term seizure monitoring
61533	Craniotomy with elevation of bone flap; for subdural implantation of an electrode array, for long-term seizure monitoring
61534	Craniotomy with elevation of bone flap; for excision of epileptogenic focus without electrocorticography during surgery
61535	Craniotomy with elevation of bone flap; for removal of epidural or subdural electrode array, without excision of cerebral tissue (separate procedure)
61536	Craniotomy with elevation of bone flap; for excision of cerebral epileptogenic focus, with electrocorticography during surgery (includes removal of electrode array)

61537	Craniotomy with elevation of bone flap; for lobectomy, temporal lobe, without electrocorticography during surgery
61538	Craniotomy with elevation of bone flap; for lobectomy, temporal lobe, with electrocorticography during surgery
61539	Craniotomy with elevation of bone flap; for lobectomy, other than temporal lobe, partial or total, with electrocorticography during surgery
61540	Craniotomy with elevation of bone flap; for lobectomy, other than temporal lobe, partial or total, without electrocorticography during surgery
61541	Craniotomy with elevation of bone flap; for transection of corpus callosum
61543	Craniotomy with elevation of bone flap; for partial or subtotal (functional) hemispherectomy
61544	Craniotomy with elevation of bone flap; for excision or coagulation of choroid plexus
61545	Craniotomy with elevation of bone flap; for excision of craniopharyngioma
61546	Craniotomy for hypophysectomy or excision of pituitary tumor, intracranial approach
61548	Hypophysectomy or excision of pituitary tumor, transnasal or transseptal approach, nonstereotactic
61550	Craniectomy for craniosynostosis; single cranial suture
61552	Craniectomy for craniosynostosis; multiple cranial sutures
61556	Craniotomy for craniosynostosis; frontal or parietal bone flap
61557	Craniotomy for craniosynostosis; bifrontal bone flap
61558	Extensive craniectomy for multiple cranial suture craniosynostosis (eg, cloverleaf skull); not requiring bone grafts
61559	Extensive craniectomy for multiple cranial suture craniosynostosis (eg, cloverleaf skull); recontouring with multiple osteotomies and bone autografts (eg, barrel-stave procedure) (includes obtaining grafts)
61563	Excision, intra and extracranial, benign tumor of cranial bone (eg, fibrous dysplasia); without optic nerve decompression

61564	Excision, intra and extracranial, benign tumor of cranial bone (eg, fibrous dysplasia); with optic nerve decompression
61566	Craniotomy with elevation of bone flap; for selective amygdalohippocampectomy
61567	Craniotomy with elevation of bone flap; for multiple subpial transections, with electrocorticography during surgery
61570	Craniectomy or craniotomy; with excision of foreign body from brain
61571	Craniectomy or craniotomy; with treatment of penetrating wound of brain
61575	Transoral approach to skull base, brain stem or upper spinal cord for biopsy, decompression or excision of lesion
61576	Transoral approach to skull base, brain stem or upper spinal cord for biopsy, decompression or excision of lesion; requiring splitting of tongue and/or mandible (including tracheostomy)
61580	Craniofacial approach to anterior cranial fossa; extradural, including lateral rhinotomy, ethmoidectomy, sphenoidectomy, without maxillectomy or orbital exenteration
61581	Craniofacial approach to anterior cranial fossa; extradural, including lateral rhinotomy, orbital exenteration, ethmoidectomy, sphenoidectomy and/or maxillectomy
61582	Craniofacial approach to anterior cranial fossa; extradural, including unilateral or bifrontal craniotomy, elevation of frontal lobe(s), osteotomy of base of anterior cranial fossa
61583	Craniofacial approach to anterior cranial fossa; intradural, including unilateral or bifrontal craniotomy, elevation or resection of frontal lobe, osteotomy of base of anterior cranial fossa
61584	Orbitocranial approach to anterior cranial fossa, extradural, including supraorbital ridge osteotomy and elevation of frontal and/or temporal lobe(s); without orbital exenteration
61585	Orbitocranial approach to anterior cranial fossa, extradural, including supraorbital ridge osteotomy and elevation of frontal and/or temporal lobe(s); with orbital exenteration
61586	Bicoronal, transzygomatic and/or LeFort I osteotomy approach to anterior cranial fossa with or without internal fixation, without bone graft

61590	Infratemporal pre-auricular approach to middle cranial fossa (parapharyngeal space, infratemporal and midline skull base, nasopharynx), with or without disarticulation of the mandible, including parotidectomy, craniotomy, decompression and/or mobilization of the facial nerve and/or petrous carotid artery"
61591	Infratemporal post-auricular approach to middle cranial fossa (internal auditory meatus, petrous apex, tentorium, cavernous sinus, parasellar area, infratemporal fossa) including mastoidectomy, resection of sigmoid sinus, with or without decompression and/or mobilization of contents of auditory canal or petrous carotid artery"
61592	Orbitocranial zygomatic approach to middle cranial fossa (cavernous sinus and carotid artery, clivus, basilar artery or petrous apex) including osteotomy of zygoma, craniotomy, extra- or intradural elevation of temporal lobe
61595	Transtemporal approach to posterior cranial fossa, jugular foramen or midline skull base, including mastoidectomy, decompression of sigmoid sinus and/or facial nerve, with or without mobilization
61596	Transcochlear approach to posterior cranial fossa, jugular foramen or midline skull base, including labyrinthectomy, decompression, with or without mobilization of facial nerve and/or petrous carotid artery
61597	Transcondylar (far lateral) approach to posterior cranial fossa, jugular foramen or midline skull base, including occipital condylectomy, mastoidectomy, resection of C1-C3 vertebral body(s), decompression of vertebral artery, with or without mobilization
61598	Transpetrosal approach to posterior cranial fossa, clivus or foramen magnum, including ligation of superior petrosal sinus and/or sigmoid sinus
61600	Resection or excision of neoplastic, vascular or infectious lesion of base of anterior cranial fossa; extradural
61601	Resection or excision of neoplastic, vascular or infectious lesion of base of anterior cranial fossa; intradural, including dural repair, with or without graft

61605	Resection or excision of neoplastic, vascular or infectious lesion of infratemporal fossa, parapharyngeal space, petrous apex; extradural
61606	Resection or excision of neoplastic, vascular or infectious lesion of infratemporal fossa, parapharyngeal space, petrous apex; intradural, including dural repair, with or without graft
61607	Resection or excision of neoplastic, vascular or infectious lesion of parasellar area, cavernous sinus, clivus or midline skull base; extradural
61608	Resection or excision of neoplastic, vascular or infectious lesion of parasellar area, cavernous sinus, clivus or midline skull base; intradural, including dural repair, with or without graft
61611	Transection or ligation, carotid artery in petrous canal; without repair (List separately in addition to code for primary procedure)
61613	Obliteration of carotid aneurysm, arteriovenous malformation, or carotid-cavernous fistula by dissection within cavernous sinus
61615	Resection or excision of neoplastic, vascular or infectious lesion of base of posterior cranial fossa, jugular foramen, foramen magnum, or C1-C3 vertebral bodies; extradural
61616	Resection or excision of neoplastic, vascular or infectious lesion of base of posterior cranial fossa, jugular foramen, foramen magnum, or C1-C3 vertebral bodies; intradural, including dural repair, with or without graft
61618	Secondary repair of dura for cerebrospinal fluid leak, anterior, middle or posterior cranial fossa following surgery of the skull base; by free tissue graft (eg, pericranium, fascia, tensor fascia lata, adipose tissue, homologous or synthetic grafts)
61619	Secondary repair of dura for cerebrospinal fluid leak, anterior, middle or posterior cranial fossa following surgery of the skull base; by local or regionalized vascularized pedicle flap or myocutaneous flap (including galea, temporalis, frontalis or occipitalis muscle)"
61624	Transcatheter permanent occlusion or embolization (eg, for tumor destruction, to achieve hemostasis, to occlude a vascular malformation), percutaneous, any method; central nervous system (intracranial, spinal cord)
61630	Balloon angioplasty, intracranial (eg, atherosclerotic stenosis), percutaneous

61635	Transcatheter placement of intravascular stent(s), intracranial (eg, atherosclerotic stenosis), including balloon angioplasty, if performed
61645	Percutaneous arterial transluminal mechanical thrombectomy and/or infusion for thrombolysis, intracranial, any method, including diagnostic angiography, fluoroscopic guidance, catheter placement, and intraprocedural pharmacological thrombolytic injection(s)"
61650	Endovascular intracranial prolonged administration of pharmacologic agent(s) other than for thrombolysis, arterial, including catheter placement, diagnostic angiography, and imaging guidance; initial vascular territory
61651	Endovascular intracranial prolonged administration of pharmacologic agent(s) other than for thrombolysis, arterial, including catheter placement, diagnostic angiography, and imaging guidance; each additional vascular territory (List separately in addition to code for primary procedure)"
61680	Surgery of intracranial arteriovenous malformation; supratentorial, simple
61682	Surgery of intracranial arteriovenous malformation; supratentorial, complex
61684	Surgery of intracranial arteriovenous malformation; infratentorial, simple
61686	Surgery of intracranial arteriovenous malformation; infratentorial, complex
61690	Surgery of intracranial arteriovenous malformation; dural, simple
61692	Surgery of intracranial arteriovenous malformation; dural, complex
61697	Surgery of complex intracranial aneurysm, intracranial approach; carotid circulation
61698	Surgery of complex intracranial aneurysm, intracranial approach; vertebrobasilar circulation
61700	Surgery of simple intracranial aneurysm, intracranial approach; carotid circulation
61702	Surgery of simple intracranial aneurysm, intracranial approach; vertebrobasilar circulation
61703	Surgery of intracranial aneurysm, cervical approach by application of occluding clamp to cervical carotid artery (Selverstone-Crutchfield type)
61705	Surgery of aneurysm, vascular malformation or carotid-cavernous fistula; by intracranial and cervical occlusion of carotid artery

61708	Surgery of aneurysm, vascular malformation or carotid-cavernous fistula; by intracranial electrothrombosis
61710	Surgery of aneurysm, vascular malformation or carotid-cavernous fistula; by intra-arterial embolization, injection procedure, or balloon catheter
61711	Anastomosis, arterial, extracranial-intracranial (eg, middle cerebral/cortical) arteries
61735	Creation of lesion by stereotactic method, including burr hole(s) and localizing and recording techniques, single or multiple stages; subcortical structure(s) other than globus pallidus or thalamus
61736	Laser interstitial thermal therapy (LITT) of lesion, intracranial, including burr hole(s), with magnetic resonance imaging guidance, when performed; single trajectory for 1 simple lesion
61737	Laser interstitial thermal therapy (LITT) of lesion, intracranial, including burr hole(s), with magnetic resonance imaging guidance, when performed; multiple trajectories for multiple or complex lesion(s)
61750	Stereotactic biopsy, aspiration, or excision, including burr hole(s), for intracranial lesion
61751	Stereotactic biopsy, aspiration, or excision, including burr hole(s), for intracranial lesion; with computed tomography and/or magnetic resonance guidance
61760	Stereotactic implantation of depth electrodes into the cerebrum for long-term seizure monitoring
61850	Twist drill or burr hole(s) for implantation of neurostimulator electrodes, cortical
61860	Craniectomy or craniotomy for implantation of neurostimulator electrodes, cerebral, cortical
61863	Twist drill, burr hole, craniotomy, or craniectomy with stereotactic implantation of neurostimulator electrode array in subcortical site (eg, thalamus, globus pallidus, subthalamic nucleus, periventricular, periaqueductal gray), without use of intraoperative microelectrode recording; first array"
61864	Twist drill, burr hole, craniotomy, or craniectomy with stereotactic implantation of neurostimulator electrode array in subcortical site (eg, thalamus, globus pallidus, subthalamic nucleus, periventricular, periaqueductal gray), without use of intraoperative microelectrode recording; each additional array (List separately in addition to primary procedure)"

61867	Twist drill, burr hole, craniotomy, or craniectomy with stereotactic implantation of neurostimulator electrode array in subcortical site (eg, thalamus, globus pallidus, subthalamic nucleus, periventricular, periaqueductal gray), with use of intraoperative microelectrode recording; first array"
61868	Twist drill, burr hole, craniotomy, or craniectomy with stereotactic implantation of neurostimulator electrode array in subcortical site (eg, thalamus, globus pallidus, subthalamic nucleus, periventricular, periaqueductal gray), with use of intraoperative microelectrode recording; each additional array (List separately in addition to primary procedure)"
62005	Elevation of depressed skull fracture; compound or comminuted, extradural
62010	Elevation of depressed skull fracture; with repair of dura and/or debridement of brain
62100	Craniotomy for repair of dural/cerebrospinal fluid leak, including surgery for rhinorrhea/otorrhea
62115	Reduction of craniomegalic skull (eg, treated hydrocephalus); not requiring bone grafts or cranioplasty
62117	Reduction of craniomegalic skull (eg, treated hydrocephalus); requiring craniotomy and reconstruction with or without bone graft (includes obtaining grafts)
62120	Repair of encephalocele, skull vault, including cranioplasty
62121	Craniotomy for repair of encephalocele, skull base
62140	Cranioplasty for skull defect; up to 5 cm diameter
62141	Cranioplasty for skull defect; larger than 5 cm diameter
62142	Removal of bone flap or prosthetic plate of skull
62143	Replacement of bone flap or prosthetic plate of skull
62145	Cranioplasty for skull defect with reparative brain surgery
62146	Cranioplasty with autograft (includes obtaining bone grafts); up to 5 cm diameter
62147	Cranioplasty with autograft (includes obtaining bone grafts); larger than 5 cm diameter
62148	Incision and retrieval of subcutaneous cranial bone graft for cranioplasty (List separately in addition to code for primary procedure)

62161	Neuroendoscopy, intracranial; with dissection of adhesions, fenestration of septum pellucidum or intraventricular cysts (including placement, replacement, or removal of ventricular catheter)
62162	Neuroendoscopy, intracranial; with fenestration or excision of colloid cyst, including placement of external ventricular catheter for drainage
62164	Neuroendoscopy, intracranial; with excision of brain tumor, including placement of external ventricular catheter for drainage
62165	Neuroendoscopy, intracranial; with excision of pituitary tumor, transnasal or trans-sphenoidal approach
62180	Ventriculocisternostomy (Torkildsen type operation)
62190	Creation of shunt; subarachnoid/subdural-atrial, -jugular, -auricular
62192	Creation of shunt; subarachnoid/subdural-peritoneal, -pleural, other terminus
62200	Ventriculocisternostomy, third ventricle
62201	Ventriculocisternostomy, third ventricle; stereotactic, neuroendoscopic method
62220	Creation of shunt; ventriculo-atrial, -jugular, -auricular
62223	Creation of shunt; ventriculo-peritoneal, -pleural, other terminus
62256	Removal of complete cerebrospinal fluid shunt system; without replacement
62258	Removal of complete cerebrospinal fluid shunt system; with replacement by similar or other shunt at same operation
63050	Laminoplasty, cervical, with decompression of the spinal cord, 2 or more vertebral segments
63051	Laminoplasty, cervical, with decompression of the spinal cord, 2 or more vertebral segments; with reconstruction of the posterior bony elements (including the application of bridging bone graft and non-segmental fixation devices [eg, wire, suture, mini-plates], when performed)"
63077	Discectomy, anterior, with decompression of spinal cord and/or nerve root(s), including osteophyctomy; thoracic, single interspace
63078	Discectomy, anterior, with decompression of spinal cord and/or nerve root(s), including osteophyctomy; thoracic, each additional interspace (List separately in addition to code for primary procedure)

63081	Vertebral corpectomy (vertebral body resection), partial or complete, anterior approach with decompression of spinal cord and/or nerve root(s); cervical, single segment
63082	Vertebral corpectomy (vertebral body resection), partial or complete, anterior approach with decompression of spinal cord and/or nerve root(s); cervical, each additional segment (List separately in addition to code for primary procedure)
63085	Vertebral corpectomy (vertebral body resection), partial or complete, transthoracic approach with decompression of spinal cord and/or nerve root(s); thoracic, single segment
63086	Vertebral corpectomy (vertebral body resection), partial or complete, transthoracic approach with decompression of spinal cord and/or nerve root(s); thoracic, each additional segment (List separately in addition to code for primary procedure)
63087	Vertebral corpectomy (vertebral body resection), partial or complete, combined thoracolumbar approach with decompression of spinal cord, cauda equina or nerve root(s), lower thoracic or lumbar; single segment
63088	Vertebral corpectomy (vertebral body resection), partial or complete, combined thoracolumbar approach with decompression of spinal cord, cauda equina or nerve root(s), lower thoracic or lumbar; each additional segment (List separately in addition to code for primary procedure)"
63090	Vertebral corpectomy (vertebral body resection), partial or complete, transperitoneal or retroperitoneal approach with decompression of spinal cord, cauda equina or nerve root(s), lower thoracic, lumbar, or sacral; single segment
63091	Vertebral corpectomy (vertebral body resection), partial or complete, transperitoneal or retroperitoneal approach with decompression of spinal cord, cauda equina or nerve root(s), lower thoracic, lumbar, or sacral; each additional segment (List separately in addition to code for primary procedure)"
63101	Vertebral corpectomy (vertebral body resection), partial or complete, lateral extracavitary approach with decompression of spinal cord and/or nerve root(s) (eg, for tumor or retropulsed bone fragments); thoracic, single segment

63102	Vertebral corpectomy (vertebral body resection), partial or complete, lateral extracavitary approach with decompression of spinal cord and/or nerve root(s) (eg, for tumor or retropulsed bone fragments); lumbar, single segment
63103	Vertebral corpectomy (vertebral body resection), partial or complete, lateral extracavitary approach with decompression of spinal cord and/or nerve root(s) (eg, for tumor or retropulsed bone fragments); thoracic or lumbar, each additional segment (List separately in addition to code for primary procedure)"
63170	Laminectomy with myelotomy (eg, Bischof or DREZ type), cervical, thoracic, or thoracolumbar
63172	Laminectomy with drainage of intramedullary cyst/syrinx; to subarachnoid space
63173	Laminectomy with drainage of intramedullary cyst/syrinx; to peritoneal or pleural space
63185	Laminectomy with rhizotomy; 1 or 2 segments
63190	Laminectomy with rhizotomy; more than 2 segments
63191	Laminectomy with section of spinal accessory nerve
63197	Laminectomy with cordotomy, with section of both spinothalamic tracts, 1 stage, thoracic
63200	Laminectomy, with release of tethered spinal cord, lumbar
63250	Laminectomy for excision or occlusion of arteriovenous malformation of spinal cord; cervical
63251	Laminectomy for excision or occlusion of arteriovenous malformation of spinal cord; thoracic
63252	Laminectomy for excision or occlusion of arteriovenous malformation of spinal cord; thoracolumbar
63270	Laminectomy for excision of intraspinal lesion other than neoplasm, intradural; cervical
63271	Laminectomy for excision of intraspinal lesion other than neoplasm, intradural; thoracic
63272	Laminectomy for excision of intraspinal lesion other than neoplasm, intradural; lumbar
63273	Laminectomy for excision of intraspinal lesion other than neoplasm, intradural; sacral
63275	Laminectomy for biopsy/excision of intraspinal neoplasm; extradural, cervical
63276	Laminectomy for biopsy/excision of intraspinal neoplasm; extradural, thoracic
63277	Laminectomy for biopsy/excision of intraspinal neoplasm; extradural, lumbar
63278	Laminectomy for biopsy/excision of intraspinal neoplasm; extradural, sacral

63280	Laminectomy for biopsy/excision of intraspinal neoplasm; intradural, extramedullary, cervical
63281	Laminectomy for biopsy/excision of intraspinal neoplasm; intradural, extramedullary, thoracic
63282	Laminectomy for biopsy/excision of intraspinal neoplasm; intradural, extramedullary, lumbar
63283	Laminectomy for biopsy/excision of intraspinal neoplasm; intradural, sacral
63285	Laminectomy for biopsy/excision of intraspinal neoplasm; intradural, intramedullary, cervical
63286	Laminectomy for biopsy/excision of intraspinal neoplasm; intradural, intramedullary, thoracic
63287	Laminectomy for biopsy/excision of intraspinal neoplasm; intradural, intramedullary, thoracolumbar
63290	Laminectomy for biopsy/excision of intraspinal neoplasm; combined extradural-intradural lesion, any level
63295	Osteoplastic reconstruction of dorsal spinal elements, following primary intraspinal procedure (List separately in addition to code for primary procedure)
63300	Vertebral corpectomy (vertebral body resection), partial or complete, for excision of intraspinal lesion, single segment; extradural, cervical
63301	Vertebral corpectomy (vertebral body resection), partial or complete, for excision of intraspinal lesion, single segment; extradural, thoracic by transthoracic approach
63302	Vertebral corpectomy (vertebral body resection), partial or complete, for excision of intraspinal lesion, single segment; extradural, thoracic by thoracolumbar approach
63303	Vertebral corpectomy (vertebral body resection), partial or complete, for excision of intraspinal lesion, single segment; extradural, lumbar or sacral by transperitoneal or retroperitoneal approach
63304	Vertebral corpectomy (vertebral body resection), partial or complete, for excision of intraspinal lesion, single segment; intradural, cervical
63305	Vertebral corpectomy (vertebral body resection), partial or complete, for excision of intraspinal lesion, single segment; intradural, thoracic by transthoracic approach
63306	Vertebral corpectomy (vertebral body resection), partial or complete, for excision of intraspinal lesion, single segment; intradural, thoracic by thoracolumbar approach

63307	Vertebral corpectomy (vertebral body resection), partial or complete, for excision of intraspinal lesion, single segment; intradural, lumbar or sacral by transperitoneal or retroperitoneal approach
63308	Vertebral corpectomy (vertebral body resection), partial or complete, for excision of intraspinal lesion, single segment; each additional segment (List separately in addition to codes for single segment)
63700	Repair of meningocele; less than 5 cm diameter
63702	Repair of meningocele; larger than 5 cm diameter
63704	Repair of myelomeningocele; less than 5 cm diameter
63706	Repair of myelomeningocele; larger than 5 cm diameter
63707	Repair of dural/cerebrospinal fluid leak, not requiring laminectomy
63709	Repair of dural/cerebrospinal fluid leak or pseudomeningocele, with laminectomy
63710	Dural graft, spinal
63740	Creation of shunt, lumbar, subarachnoid-peritoneal, -pleural, or other; including laminectomy
64755	Transection or avulsion of; vagus nerves limited to proximal stomach (selective proximal vagotomy, proximal gastric vagotomy, parietal cell vagotomy, supra- or highly selective vagotomy)
64760	Transection or avulsion of; vagus nerve (vagotomy), abdominal
64809	Sympathectomy, thoracolumbar
64818	Sympathectomy, lumbar
64866	Anastomosis; facial-spinal accessory
64868	Anastomosis; facial-hypoglossal
65273	Repair of laceration; conjunctiva, by mobilization and rearrangement, with hospitalization
69155	Radical excision external auditory canal lesion; with neck dissection
69535	Resection temporal bone, external approach
69554	Excision aural glomus tumor; extended (extratemporal)
69950	Vestibular nerve section, transcranial approach

75956	Endovascular repair of descending thoracic aorta (eg, aneurysm, pseudoaneurysm, dissection, penetrating ulcer, intramural hematoma, or traumatic disruption); involving coverage of left subclavian artery origin, initial endoprosthesis plus descending thoracic aortic extension(s), if required, to level of celiac artery origin, radiological supervision and interpretation"
75957	Endovascular repair of descending thoracic aorta (eg, aneurysm, pseudoaneurysm, dissection, penetrating ulcer, intramural hematoma, or traumatic disruption); not involving coverage of left subclavian artery origin, initial endoprosthesis plus descending thoracic aortic extension(s), if required, to level of celiac artery origin, radiological supervision and interpretation"
75958	Placement of proximal extension prosthesis for endovascular repair of descending thoracic aorta (eg, aneurysm, pseudoaneurysm, dissection, penetrating ulcer, intramural hematoma, or traumatic disruption), radiological supervision and interpretation
75959	Placement of distal extension prosthesis(s) (delayed) after endovascular repair of descending thoracic aorta, as needed, to level of celiac origin, radiological supervision and interpretation
92941	Percutaneous transluminal revascularization of acute total/subtotal occlusion during acute myocardial infarction, coronary artery or coronary artery bypass graft, any combination of intracoronary stent, atherectomy and angioplasty, including aspiration thrombectomy when performed, single vessel"
92970	Cardioassist-method of circulatory assist; internal
92971	Cardioassist-method of circulatory assist; external
92975	Thrombolysis, coronary; by intracoronary infusion, including selective coronary angiography
93583	Percutaneous transcatheter septal reduction therapy (eg, alcohol septal ablation) including temporary pacemaker insertion when performed
99184	Initiation of selective head or total body hypothermia in the critically ill neonate, includes appropriate patient selection by review of clinical, imaging and laboratory data, confirmation of esophageal temperature probe location, evaluation of amplitude EEG, supervision of controlled hypothermia, and assessment of patient tolerance of cooling"

99190	Assembly and operation of pump with oxygenator or heat exchanger (with or without ECG and/or pressure monitoring); each hour
99191	Assembly and operation of pump with oxygenator or heat exchanger (with or without ECG and/or pressure monitoring); 45 minutes
99192	Assembly and operation of pump with oxygenator or heat exchanger (with or without ECG and/or pressure monitoring); 30 minutes
C9606	Perc d-e cor revasc w ami s
G0341	Percutaneous islet celltrans
G0342	Laparoscopy islet cell trans
G0343	Laparotomy islet cell transp
G0412	Open tx iliac spine uni/bil
G0414	Pelvic ring fx treat int fix
G0415	Open tx post pelvic fxcture
0163T	Total disc arthroplasty (artificial disc), anterior approach, including discectomy to prepare interspace (other than for decompression), each additional interspace, lumbar (List separately in addition to code for primary procedure)
0164T	Removal of total disc arthroplasty, (artificial disc), anterior approach, each additional interspace, lumbar (List separately in addition to code for primary procedure)
0165T	Revision including replacement of total disc arthroplasty (artificial disc), anterior approach, each additional interspace, lumbar (List separately in addition to code for primary procedure)
0202T	Posterior vertebral joint(s) arthroplasty (eg, facet joint[s] replacement), including facetectomy, laminectomy, foraminotomy, and vertebral column fixation, injection of bone cement, when performed, including fluoroscopy, single level, lumbar spine
0219T	Placement of a posterior intrafacet implant(s), unilateral or bilateral, including imaging and placement of bone graft(s) or synthetic device(s), single level; cervical
0220T	Placement of a posterior intrafacet implant(s), unilateral or bilateral, including imaging and placement of bone graft(s) or synthetic device(s), single level; thoracic

0235T	Transluminal peripheral atherectomy, open or percutaneous, including radiological supervision and interpretation; visceral artery (except renal), each vessel
0345T	Transcatheter mitral valve repair percutaneous approach via the coronary sinus
0483T	Transcatheter mitral valve implantation/replacement (TMVI) with prosthetic valve; percutaneous approach, including transseptal puncture, when performed
0484T	Transcatheter mitral valve implantation/replacement (TMVI) with prosthetic valve; transthoracic exposure (eg, thoracotomy, transapical)
0494T	Surgical preparation and cannulation of marginal (extended) cadaver donor lung(s) to ex vivo organ perfusion system, including decannulation, separation from the perfusion system, and cold preservation of the allograft prior to implantation, when performed"
0495T	Initiation and monitoring marginal (extended) cadaver donor lung(s) organ perfusion system by physician or qualified health care professional, including physiological and laboratory assessment (eg, pulmonary artery flow, pulmonary artery pressure, left atrial pressure, pulmonary vascular resistance, mean/peak and plateau airway pressure, dynamic compliance and perfusate gas analysis), including bronchoscopy and X ray when performed; first two hours in sterile field"
0496T	Initiation and monitoring marginal (extended) cadaver donor lung(s) organ perfusion system by physician or qualified health care professional, including physiological and laboratory assessment (eg, pulmonary artery flow, pulmonary artery pressure, left atrial pressure, pulmonary vascular resistance, mean/peak and plateau airway pressure, dynamic compliance and perfusate gas analysis), including bronchoscopy and X ray when performed; each additional hour (List separately in addition to code for primary procedure)"
0543T	Transapical mitral valve repair, including transthoracic echocardiography, when performed, with placement of artificial chordae tendineae
0544T	Transcatheter mitral valve annulus reconstruction, with implantation of adjustable annulus reconstruction device, percutaneous approach including transseptal puncture
0545T	Transcatheter tricuspid valve annulus reconstruction with implantation of adjustable annulus reconstruction device, percutaneous approach

0569T	Transcatheter tricuspid valve repair, percutaneous approach; initial prosthesis
0570T	Transcatheter tricuspid valve repair, percutaneous approach; each additional prosthesis during same session (List separately in addition to code for primary procedure)
0584T	Islet cell transplant, includes portal vein catheterization and infusion, including all imaging, including guidance, and radiological supervision and interpretation, when performed; percutaneous
0585T	Islet cell transplant, includes portal vein catheterization and infusion, including all imaging, including guidance, and radiological supervision and interpretation, when performed; laparoscopic
0586T	Islet cell transplant, includes portal vein catheterization and infusion, including all imaging, including guidance, and radiological supervision and interpretation, when performed; open
0643T	Transcatheter left ventricular restoration device implantation including right and left heart catheterization and left ventriculography when performed, arterial approach
0656T	Vertebral body tethering, anterior; up to 7 vertebral segments
0657T	Vertebral body tethering, anterior; 8 or more vertebral segments
0659T	Transcatheter intracoronary infusion of supersaturated oxygen in conjunction with percutaneous coronary revascularization during acute myocardial infarction, including catheter placement, imaging guidance (eg, fluoroscopy), angiography, and radiologic supervision and interpretation"