Reporting Repair of Anterior Abdominal Hernias and Parastomal Hernias (49591-49596, 49613-49618, 49621-49623, 15778)

CPT® Assistant.

September 2023; Volume 33: Issue 9

For the Current Procedural Terminology (CPT®) 2023 code set, 15 new codes were established in the Abdomen, Peritoneum, and Omentum subsection in the Surgery/Digestive System section to describe reporting of anterior abdominal hernia repair (49591-49596, 49613-49618), parastomal hernia repair (49621-49622), and the removal of mesh or other prostheses (49623). Furthermore, a new code (15778) was created in the Surgery/Integumentary System subsection for reporting the implantation of absorbable mesh for delayed closure of defects caused by soft tissue infection or trauma. In conjunction with these changes, codes 49560, 49561, 49565, 49566, 49570, 49572, 49580, 49582, 49585, 49587, 49590, and 49652-49657, which were used to report open and laparoscopic repair of anterior abdominal hernias, and code 49568, which was used for mesh implantation in open ventral or incisional hernias and defect(s) resulting from necrotizing soft tissue infection, were deleted. To ensure accurate reporting of these new codes, guidelines and parentheticals were added. This article offers an overview of these changes.

Integumentary System

Other Flaps and Grafts

15778 Implantation of absorbable mesh or other prosthesis for delayed closure of defect(s) (ie, external genitalia, perineum, abdominal wall) due to

soft tissue infection or trauma

(For repair of anorectal fistula with plug [eg, porcine small intestine submucosa {SIS}], use 46707)

(For implantation of mesh or other prosthesis for anterior abdominal hernia repair or parastomal hernia repair, see 49591-49622)

(For insertion of mesh or other prosthesis for repair of pelvic floor defect, use 57267)

(For implantation of non-biologic or synthetic implant for fascial reinforcement of the abdominal wall, use 0437T)

Digestive System

Hernioplasty, Herniorrhaphy, Herniotomy

The hernia repair codes in this section are categorized primarily by the type of hernia (inguinal, femoral, lumbar, omphalocele, anterior abdominal, parastomal).

(49491-49557, 49600, 49605, 49606, 49610, 49611, 49650, 49651 are unilateral procedures. For bilateral procedure, use modifier 50)

(Do not report modifier 50 in conjunction with 49591-49622)

49555 Repair recurrent femoral hernia; reducible

49557 incarcerated or strangulated

(49560, 49561 have been deleted. For repair of initial incisional or ventral hernia, see 49591, 49592, 49593, 49594, 49595, 49596)

(49565, 49566 have been deleted. For repair of recurrent incisional or ventral hernia, see 49613, 49614, 49615, 49616, 49617, 49618)

49591 Repair of anterior abdominal hernia(s) (ie, epigastric, incisional, ventral, umbilical, spigelian), any approach (ie, open, laparoscopic, robotic), initial, including implantation of mesh or other prosthesis when performed, total length of defect(s); less than 3 cm, reducible

49592 less than 3 cm, incarcerated or strangulated

49593 3 cm to 10 cm, reducible

49594 3 cm to 10 cm, incarcerated or strangulated

49595 greater than 10 cm, reducible

49596 greater than 10 cm, incarcerated or strangulated

#49613 Repair of anterior abdominal hernia(s) (ie, epigastric, incisional, ventral, umbilical, spigelian), any approach (ie, open, laparoscopic, robotic), recurrent, including implantation of mesh or other prosthesis when performed, total length of defect(s); less than 3 cm, reducible

#49614 less than 3 cm, incarcerated or strangulated

#49615 3 cm to 10 cm, reducible

#49616 3 cm to 10 cm, incarcerated or strangulated

#49617 greater than 10 cm, reducible

#49618 greater than 10 cm, incarcerated or strangulated

#**49621** Repair of parastomal hernia, any approach (ie, open, laparoscopic, robotic), initial or recurrent, including implantation of mesh or other prosthesis, when performed; reducible

#**49622** incarcerated or strangulated

#**49623** Removal of total or near total non-infected mesh or other prosthesis at the time of initial or recurrent anterior abdominal hernia repair or parastomal hernia repair, any approach (ie, open, laparoscopic, robotic) (List separately in addition to code for primary procedure)

(Use 49623 in conjunction with 49591-49622)

(For removal of infected mesh, use 11008)

Background and Rationale

The CPT codes in this section address a variety of hernia repairs, including herniotomy, herniorrhaphy (repairing of weakness in the muscle wall), and hernioplasty (repair of weakness and reinforcing with mesh). Before 2023, the selection of CPT codes for anterior abdominal hernia repair was primarily based on factors, such as the type of hernia (ie, epigastric, incisional, ventral, umbilical, spigelian), the approach used (ie, open, laparoscopic), the age of the patient (younger/older than 5 years of age), and the clinical presentation (initial vs recurrent, reducible vs incarcerated, or strangulated). In 2019, the American Medical Association (AMA)/Specialty Society Relative Value Scale (RVS) Update Committee (RUC) identified code 49565, Repair of a recurrent incisional or ventral hernia; reducible, as a service performed less than 50% of the time in the inpatient setting; however, its reporting included inpatient hospital evaluation and management (E/M) service codes with a Medicare utilization of over 5,000 claims. In response to this analysis, the stakeholder societies recommended referring the codes to the CPT Editorial Panel for revision to better describe hernia repair procedures as performed in current practice.

Coding Considerations Addressed

The approved new codes address the following coding concerns:

- **'Hybrid-approach' hernia repair.** Questions have increased regarding appropriate reporting for hernia repair procedures that involve both open and laparoscopic or robotic techniques; procedures may progress not only from a laparoscopic to open approach but also open procedures that finish as laparoscopic or robotic under the pneumoperitoneum. The newly established codes are approach agnostic and reported for any single or combination of open, laparoscopic, and/or robotic approaches.
- **Mesh implantation.** Literature supports that mesh implantation is typical for both open and laparoscopic hernia repairs, but the work of mesh implantation was not incorporated in all the abdominal hernia repair codes prior to 2023. To clarify coding, the newly established codes include placement of mesh implantation or other prosthesis when performed.
- **Mesh removal.** With the increasing prevalence of mesh placement in major abdominal surgeries, including hernia repairs, there was a growing need to address the appropriate reporting of the substantial effort involved in removing mesh when it becomes necessary before proceeding with hernia repair. A new add-on code for removal of total or near-total, noninfected mesh was established to report this work in addition to hernia repair.
- **Size, number, and type of hernia defect(s)**. Before 2023, the size of the total defect was not considered as a criterion for selecting the appropriate code for any hernia repair. As a result, repairs of smaller single hernias were reported in a similar manner to repairs of larger defects, potentially misrepresenting the greater level of work and complexity involved in performing certain repairs. The updated code set now enables distinction of the surgical work not only based on the clinical presentation (such as reducible vs incarcerated/strangulated) but also by considering the total size of all defects, even if they are of the same hernia type. This allows for a more accurate representation of the varying levels of work required for hernia repairs.
- **Parastomal hernia repair.** To accurately report parastomal hernias as distinct from hernias not involving a stoma, two new codes were established.

In addition to establishing new procedure codes, there have been updates to the guidelines and parenthetical notes related to anterior abdominal hernia and parastomal hernia repairs, which include the addition of inclusionary, exclusionary, and cross-reference parenthetical guidance. Note that the CPT codes for reporting the repair of inguinal, femoral, or lumbar hernias, as well as the repair of omphaloceles, have remained unchanged for 2023.

Changes in Code Structure

The updated code structure includes the following key changes for 2023:

- **Consolidation of type of hernia.** The CPT codes for incisional, ventral, spigelian, umbilical, and epigastric hernia repair were consolidated into a single set of codes, collectively referred to as “anterior abdominal hernias.” This consolidation aims to streamline the coding process and provide a more unified approach to reporting these specific types of hernia repairs.
- **Consolidation of hernia repair approach.** In response to the growing use of hybrid techniques that involve a combination of open and laparoscopic or robotic approaches in hernia repair, the new code set was modified to consolidate the approach. The new codes for anterior abdominal hernia repair are now agnostic to the specific approach used. However, note that this consolidation only applies to the anterior abdominal hernia repair codes. Separate codes for open and laparoscopic approaches for inguinal hernia repair remain.
- **Changes to reporting mesh implantation.** The new code set incorporates mesh placement in conjunction with anterior abdominal hernia repair (when performed) as inherent because mesh is typically used. However, placement of absorbable mesh or other prosthesis for delayed closure of defect(s) due to soft tissue infection or trauma is separately reportable with a new code.
- **Reporting of mesh removal.** Removal of noninfected mesh is not typically necessary but, when performed, adds to the time and complexity of the procedure. The new add-on code may be reported when noninfected mesh is removed.
- **Distinguishing work based on defect size.** In addition to the consolidation of hernia types, approaches, and use of mesh, the new anterior abdominal hernia repair codes are also differentiated based on defect size. CPT guidelines note that codes 49591-49618 are reported only once, based on the total defect size for one or more anterior abdominal hernia(s), measured as the maximal craniocaudal or transverse distance between the outer margins of all defects repaired. For example, “Swiss cheese” defects (ie, multiple separate defects) would be measured from the superior most aspect of the upper defect to the inferior most aspect of the lowest defect. In addition, the hernia defect size should be measured prior to opening the hernia defect(s) (during repair the fascia will typically retract creating a falsely elevated measurement).

Table 1 provides a summary of the 2023 changes for reporting hernia repair codes. Note that the codes for reporting repair of inguinal, femoral, or lumbar hernias, as well as repair of omphaloceles, have not changed for 2023.

Table 1. Hernia Repair Codes: Summary of Changes for 2023

Category	Effective Jan. 1, 2023	Prior to 2023

Hernia Type		
Inguinal (initial or recurrent)	No change for 2023	49491, 49492, 49495, 49496, 49500, 49501, 49505, 49507, 49520, 49521, 49525
Lumbar		49540
Femoral (initial or recurrent)		49550, 49553, 49555, 49557
Incisional or ventral hernia (initial)	49560, 49561 deleted. Report initial repair codes: 49591, 49592, 49593, 49594, 49595, 49596.	49560, 49561
Incisional or ventral hernia (recurrent)	49565, 49566 deleted. Report recurrent repair codes: 49613, 49614, 49615, 49616, 49617, 49618.	49565, 49566
Epigastric hernia	49570, 49572 deleted. Report codes 49591-49618.	49570, 49572
Umbilical hernia repair, younger than 5 years	49580, 49582 deleted. Report codes 49591-49618.	49580, 49582
Umbilical hernia repair, 5 years and older	49585, 49587 deleted. Report codes 49591-49618.	49585, 49587
Spigelian hernia repair	49590 deleted. Report codes 49591-49618.	49590
Mesh Implantation and Removal		
Implantation	49568 deleted. Implantation is incorporated in 49591-49622, do not report separately.	49568 (for open incisional or ventral hernia repair)
Implantation for delayed closure of defect(s) due to soft tissue infection or trauma	Report code 15778.	
Removal of total or near total non-infected mesh at the time of hernia repair	Report code 49623. (Use 49623 in conjunction with 49591-49622.)	
Removal of infected mesh	Report code 11008.	
Repair of omphalocele	No change for 2023.	49600, 49605, 49606, 49610, 49611
Laparoscopy		
Inguinal	No change for 2023.	49650, 49651

Ventral, umbilical, spigelian, or epigastric	49652, 49653 deleted. Approach incorporated in codes 49591-49618.	49652, 49653
Incisional	49654, 49655 deleted. Approach incorporated in codes 49591-49618.	49654, 49655
Incisional, recurrent	49656, 49657 deleted. Approach incorporated in codes 49613-49618.	49656, 49657

Additional Reporting Considerations

- **Unilateral vs bilateral procedures.** New parenthetical notes in the Repair subsection clarify that codes 49491-49557, 49600, 49605, 49606, 49610, 49611, 49650, and 49651 are unilateral procedures. When these procedures are performed bilaterally, modifier 50, *Bilateral Procedure*, should be reported. Modifier 50 is not applicable and should not be used in conjunction with codes 49591-49622. These codes are designed to represent the total repair based on the size of the defect(s), and only one code should be reported for the entire procedure. Using modifier 50 to indicate a bilateral procedure or a procedure performed on both sides is not appropriate for codes 49591-49622 because only one code is reported for the total repair based on defect(s) size.

- **Repair of multiple hernias with varying clinical presentations.** When both reducible and incarcerated or strangulated anterior abdominal hernias are repaired at the same operative session, the total defect repair is reported as incarcerated or strangulated. Similarly, when both initial and recurrent anterior abdominal hernias are repaired at the same operative session, the total defect repair is reported as recurrent. This acknowledges that when different types of defects are repaired together, they are repaired as if they were a single larger defect (eg, one larger incision, one large piece of mesh). Note that inguinal, femoral, lumbar, omphalocele, and/or parastomal hernia repair that is performed at the same operative session as anterior abdominal hernia repair is reported by appending modifier 59, *Distinct Procedural Service,* as appropriate.

The following clinical examples and procedural descriptions reflect typical clinical scenarios for which these new codes would be appropriately reported.

Clinical Example (15778)

A 60-year-old obese male with a large abdominal wall defect because of necrotizing infection and extensive debridement of all involved skin, subcutaneous tissue, fascia, and muscle undergoes delayed closure with implantation of absorbable mesh.

Description of Procedure (15778)

Examine the extent of the open wound including assessment of adherence of intestine and intra-abdominal contents to the fascia. Perform adhesiolysis, separating these contents from the fascial boundaries to allow for mesh fixation. Take care during the lysis of adhesions to avoid injury to inflamed, exposed intra-abdominal contents including small intestine and colon. Drape omentum across the exposed intestine. Measure the abdominal wall defect resulting from the surgical debridement. Size an absorbable mesh to allow for closure of the abdominal wall defect and re-establishment of abdominal wall integrity. Suture the mesh to the fascial edges circumferentially, avoiding errant placement of sutures injuring the inflamed, exposed intra-abdominal contents.

Clinical Example (49591)

A 55-year-old male presents with a painful mass through the umbilicus that disappears in supine position. He undergoes hernia repair of a defect that is less than 3 cm with placement of mesh.

Description of Procedure (49591)

Make an infraumbilical incision. Dissect the subcutaneous tissues surrounding the hernia sac. Detach the overlying umbilical dermis from the hernia sac. Circumferentially dissect the fascia surrounding the periphery of the hernia sac. Open the hernia sac and divide adhesions to the hernia sac. Then excise the hernia sac. Measure the hernia defect at less than 3 cm in diameter. Select a mesh to provide adequate overlap of the hernia defect. Insert the mesh preperitoneal or intraperitoneal and suture to the abdominal wall. Close the hernia defect with interrupted sutures over the top the mesh. Excise redundant umbilical skin. Suture the umbilical dermis to the abdominal fascia. Perform a layered closure.

Clinical Example (49592)

A 55-year-old male presents with a history of painful swelling in the umbilical region. Physical examination reveals an umbilical hernia that is tender and nonreducible by manual manipulation. He undergoes hernia repair of a defect that is less than 3 cm with placement of mesh.

Description of Procedure (49592)

Make an infraumbilical skin incision. Dissect the subcutaneous tissues surrounding the hernia sac. Detach the overlying umbilical dermis from the hernia sac. This is exacerbated by the location of the incarcerated hernia contents occupying the central space of the operative field making the dissection more challenging. Separation is performed without damaging the intra-abdominal contents incarcerated in the hernia sac. Open the hernia sac and inspect the contents. Perform adhesiolysis to free omentum and intestines incarcerated within the hernia sac. Inspect the reduced hernia contents for viability. Excise the hernia sac. The hernia defect is measured and found to span less than 3 cm. Suture a mesh with adequate overlap of the abdominal wall to the abdominal wall circumferentially. Close the hernia defect over the mesh. Excise redundant skin as appropriate. Suture the umbilical dermis to the abdominal fascia.

Clinical Example (49593)

A 60-year-old obese male with a prior laparotomy has developed a bulge in the midline incision. The defect has been increasing in size during follow-up. He has symptoms of pain and local tenderness. He has had no history of incarceration or bowel obstruction. Physical examination reveals a reducible incisional hernia. He undergoes hernia repair of a defect that is 3 to 10 cm with placement of mesh.

Description of Procedure (49593)

Obtain abdominal access and create a pneumoperitoneum with placement of a needle/trocar in the left upper quadrant. Insert the camera and verify safe entry. Place additional trocars in the lateral abdomen under direct vision. A large field of adhesions occupies approximately half of the anterior abdominal wall correlating with the extent of the prior laparotomy. Divide adhesions to the abdominal wall sharply to free the anterior abdominal wall adequately for subsequent mesh landing. Visualize the hernia defect. Take great care to avoid injury to the intestine or other intra-abdominal contents. Each separate defect within the overall hernia defect contains a separate component of adipose and intestine that requires safe reduction. Clear the falciform ligament and preperitoneal fat from the abdominal wall fascia to expose the posterior fascia. Measure and sum all of the defects with a minimum length of 3 cm and maximum length of 10 cm. Create peritoneal flaps for placement of mesh. When appropriate, approximate the fascial defect with sutures. Select a mesh to provide adequate overlap of the hernia defect. Introduce the mesh into the peritoneal cavity through a trocar and orient. Reduce insufflation to facilitate mesh conformity to the anterior abdominal wall. Secure the mesh to the abdominal wall utilizing multiple sutures and tacks. Perform complete camera survey of the abdomen and contents to inspect for bleeding and visceral injury. Irrigate as necessary. Close fascial incisions from laparoscopic ports larger than 1 cm in diameter with a suture passer. Close skin incisions according to surgeon preference.

Clinical Example (49594)

A 60-year-old obese male with a prior laparotomy has developed an incisional hernia in the midline incision. Over the past few months, the defect has become chronically protuberant. He reports increasing pain and discomfort. Physical examination reveals a hernia that is tender and nonreducible by manual manipulation. He undergoes hernia repair of a defect that is 3 to 10 cm with placement of mesh.

Description of Procedure (49594)

Obtain abdominal access and create a safe pneumoperitoneum with placement of a needle/trocar in the left upper quadrant. Insert the camera and verify safe entry. Place additional trocars in the lateral abdomen under direct vision. A large field of adhesions occupies approximately half of the abdominal wall correlating with the extent of the prior laparotomy. Sharply divide adhesions to the abdominal wall to free the anterior abdominal wall adequately for subsequent mesh landing. Carefully reduce the incarcerated/strangulated bowel, mesentery and omentum with dissection of the adhesions and sac to clear the defects for repair. Take care to avoid injury to the incarcerated intestine and omentum. Each separate defect within the overall hernia defect contains a

separate component of adipose and intestine that requires safe reduction. This requires manipulation both intra-abdominally with minimally invasive instrumentation and extra-abdominally with palpation and pressure applied to the abdominal wall to reduce the incarcerated contents. Examine the reduced tissue for viability and any inadvertent injury. Reduce the hernia sac and resect as needed to expose the fascial edges of the defect(s). Visualize the hernia defect. Clear the falciform ligament and preperitoneal fat from the abdominal wall fascia to expose the posterior fascia. Measure and sum all of the defects with a minimum of 3 cm and maximum of 10 cm. Create peritoneal flaps for placement of mesh. When appropriate, approximate the fascial defect with sutures. Select a mesh to provide adequate overlap of the hernia defect. Introduce the mesh into the peritoneal cavity through a trocar and orient. Reduce insufflation to facilitate mesh conformity to the anterior abdominal wall. Secure the mesh to the abdominal wall utilizing multiple sutures and tacks. Perform a complete camera survey of the abdomen and contents to inspect for bleeding and visceral injury and perform a final viability assessment of the material once incarcerated in the hernia sac. Irrigate as necessary. Close fascial incisions from laparoscopic ports larger than 1 cm with a suture passer. Close skin incisions according to surgeon preference.

Clinical Example (49595)

A 64-year-old obese male with a prior laparotomy has developed incisional hernias with defects of varying sizes at multiple points. He has symptoms of pain and tenderness at the sites. Physical examination reveals multiple reducible incisional hernias. He undergoes hernia repair of a defect that totals more than 10 cm with placement of mesh.

Description of Procedure (49595)

Obtain abdominal access and create a safe pneumoperitoneum with placement of a needle/trocar. Because the hernia extends across the majority of the anterior abdominal wall, select the location for insertion of the needle/trocar based on prior surgical history and the safest location to avoid intra-abdominal injury. Insert the camera and verify safe entry. Place additional trocars in the lateral abdomen, and in additional areas as needed, all under direct vision. A field of adhesions occupies the entire anterior abdominal wall correlating with the extent of the prior laparotomy. Sharply divide the adhesions to free the anterior abdominal wall completely taking great care to avoid injury to the intestine. Each separate defect within the entire hernia defect contains adipose and intestinal components and requires a safe and effective clearance of tissue. Visualize the hernia defect. Clear the falciform ligament and preperitoneal

fat from the abdominal wall fascia to expose the posterior fascia to include wide lateral clearance for adequate later mesh coverage. Create peritoneal flaps for placement of mesh. Approximate the fascial defect with sutures placed along the entire length of the defect. Calculate the appropriate size mesh after total defect length is documented. Adequate overlap of at least 5 cm in all directions is included in the calculation. Remove a trocar from the abdominal wall and dilate the track to allow insertion of the large mesh into the peritoneal cavity. Orient the mesh intra-abdominally. Reduce insufflation to facilitate mesh conformity to the anterior abdominal wall. Secure the mesh to the abdominal wall utilizing multiple sutures and numerous tacks. The suture the peritoneal flaps over the mesh to protect it from the abdominal viscera. Perform a complete camera survey of the abdomen and contents to inspect for bleeding and visceral injury. Irrigate as necessary. Close fascial incisions from laparoscopic ports larger than 1 cm with a suture passer. Close skin incisions according to surgeon preference.

Clinical Example (49596)

A 64-year-old obese male with a prior laparotomy has developed incisional hernias with defects of varying sizes at multiple points. The defects have been increasing in size during follow-up with increasing symptoms. Physical examination reveals multiple tender and nonreducible incisional hernias. He undergoes hernia repair of a defect that totals more than 10 cm with placement of mesh.

Description of Procedure (49596)

Obtain abdominal access and create a safe pneumoperitoneum with placement of a needle/trocar. As the hernia extends across the majority of the anterior abdominal wall, select a location for insertion of the needle/trocar based on the prior surgical history and the safest location to avoid intra-abdominal injury. Insert the camera and verify safe entry. Place additional trocars in the lateral abdomen under direct vision. A large field of adhesions occupies the entire anterior abdominal wall correlating with the extent of the prior laparotomy. Sharply divide adhesions to free the anterior abdominal wall completely taking great care to avoid injury to the intestine. Each separate defect within the entire hernia defect contains adipose and intestinal components and requires a safe and effective clearance of tissue. Carefully reduce the incarcerated/strangulated bowel, mesentery, and omentum with dissection of the adhesions and sac to clear all the defects for repair. Take care to avoid injury to the incarcerated tissue. This requires manipulation both intra-abdominally with minimally invasive instrumentation and extra-abdominally with palpation and pressure applied to the abdominal wall to reduce the incarcerated contents. Examine

the reduced tissue for viability and any inadvertent injury. Clear the falciform ligament and preperitoneal fat from the abdominal wall fascia to expose all defects and enough surface for mesh overlap. Reduce and resect the hernia sac as needed to expose the fascial edges of the defect(s). Visualize the hernia defect. Measure the defects with a minimum craniocaudal length greater than 10 cm. Create peritoneal flaps for placement of mesh. Approximate the fascial defect with sutures placed along the entirety of the defect. Calculate the appropriate size mesh after total defect length is documented. Adequate overlap of at least 5 cm in all directions is included in the calculation. Remove a trocar from the abdominal wall and dilate the track to allow insertion of the large mesh into the peritoneal cavity. Orient the mesh intra-abdominally. Reduce insufflation to facilitate mesh conformity to the anterior abdominal wall. Secure the mesh to the abdominal wall utilizing sutures and tacks. Then suture the peritoneal flaps over the mesh to protect it from the abdominal viscera. Perform a complete camera survey of the abdomen and contents to inspect for bleeding and visceral injury and perform a final viability assessment of the material once incarcerated in the hernia sac. Irrigate as necessary. Close fascial incisions for laparoscopic ports larger than 1 cm with a suture passer. Close skin incisions according to surgeon preference.

Clinical Example (49613)

A 60-year-old obese male has a surgical history of a prior laparotomy with a resultant hernia in the incision. The prior hernia was repaired 5 years ago. He now has a bulge in the midepigastric area for 2 months that disappears when he lies down. Physical examination reveals a small recurrent reducible incisional hernia. He undergoes hernia repair of a defect that is less than 3 cm with placement of mesh.

Description of Procedure (49613)

Obtain abdominal access and create a safe pneumoperitoneum with placement of a needle/trocar in the left upper quadrant. Insert the camera and verify safe entry. Place additional trocars in the lateral abdomen under direct vision. Perform adhesiolysis to clear adhesions between omentum, small intestines, and colon from the abdominal wall and prior mesh. Visualize the hernia defect. Sharply divide the adhesions to the abdominal wall to free the anterior abdominal wall completely. Clear the falciform ligament and preperitoneal fat from the abdominal wall fascia to expose the posterior fascia. Create peritoneal flaps for placement of mesh. Approximate the fascial defect with sutures. Measure the hernia defect at less than 3 cm in diameter. Select a mesh to provide adequate overlap of the hernia defect. Introduce a mesh into the peritoneal cavity through a trocar and orient. Reduce insufflation to

facilitate mesh conformity to the anterior abdominal wall. Secure the mesh to the abdominal wall utilizing sutures and/or tacks. Then suture the peritoneal flaps over the mesh to protect it from the abdominal viscera. Perform a complete camera survey of the abdomen and contents to inspect for bleeding and visceral injury. Irrigate as necessary. Close fascial incisions for laparoscopic ports larger than 1 cm with a suture passer. Close skin incisions according to surgeon preference.

Clinical Example (49614)

A 60-year-old obese male has a surgical history of a prior laparotomy with a resultant hernia in the incision. The prior hernia was repaired 5 years ago. He now has a small bulge in the midepigastric area for 2 months that previously disappeared when supine. The bulge is now irreducible and tender. Physical examination reveals a small recurrent incarcerated incisional hernia. He undergoes hernia repair of a defect that is less than 3 cm with placement of mesh.

Description of Procedure (49614)

Obtain abdominal access and create a safe pneumoperitoneum with placement of a needle/trocar in the left upper quadrant. Insert the camera and verify a safe entry. Place additional trocars in the lateral abdomen under direct vision. Carefully reduce the incarcerated/ strangulated bowel, mesentery, and omentum with dissection of the adhesions from any previous mesh to expose and to clear the defect for repair. This requires manipulation both intra-abdominally with minimally invasive instrumentation and extra-abdominally with palpation and pressure applied to the abdominal wall to reduce the incarcerated contents. Examine the reduced tissue for viability and any inadvertent injury. Reduce the hernia sac and resect as needed to expose the fascial edges of the defect(s). Visualize the hernia defect. Clear the falciform ligament and preperitoneal fat from the abdominal wall fascia to expose the posterior fascia. Create peritoneal flaps for placement of mesh. Suture the fascial defect. Introduce a mesh into the peritoneal cavity through a trocar and orient. Reduce insufflation to facilitate mesh conformity to the anterior abdominal wall. Secure the mesh to the abdominal wall utilizing sutures and/or tacks. Then suture the peritoneal flaps over the mesh to protect it from the abdominal viscera. Perform a complete camera survey of the abdomen and contents to inspect for bleeding and visceral injury and perform a final viability assessment of the material once incarcerated in the hernia sac. Irrigate as necessary. Close fascial incisions from laparoscopic ports larger than 1 cm with a suture passer. Close skin incisions according to surgeon preference.

Clinical Example (49615)

A 60-year-old obese male presents with a large bulge in midepigastric area that disappears when he lies down. His surgical history includes a prior laparotomy with resultant hernia that was repaired 5 years ago. Physical examination reveals a large recurrent reducible incisional hernia. He undergoes hernia repair of a defect that is 3 to 10 cm with placement of mesh.

Description of Procedure (49615)

Obtain abdominal access and create a safe pneumoperitoneum with placement of a needle/trocar in the left upper quadrant. Insert the camera and verify safe entry. Place additional trocars in the lateral abdomen under direct vision. A large field of adhesions occupies approximately half of the anterior abdominal wall correlating with the extent of the prior laparotomy and hernia repair. Sharply divide adhesions to the abdominal wall to free the anterior abdominal wall completely. Perform the careful process of adhesiolysis to clear adhesions from between omentum, small intestines and colon, and the abdominal wall and prior mesh. Each separate defect within the entire hernia defect contains adipose and intestinal components and requires a safe and effective clearance of tissue. Visualize the hernia defect. Clear the falciform ligament and preperitoneal fat from the abdominal wall fascia to expose the posterior fascia. Create peritoneal flaps for placement of mesh. Suture the fascial defect the entire length. Select a mesh to provide adequate overlap of the hernia defect. Introduce a mesh into the peritoneal cavity through a trocar and orient. Reduce insufflation to facilitate mesh conformity to the anterior abdominal wall. Secure the mesh to the abdominal wall utilizing sutures and/or tacks. Then suture the peritoneal flaps over the mesh to protect it from the abdominal viscera. Perform a complete camera survey of the abdomen and contents to inspect for bleeding and visceral injury. Irrigate as necessary. Close fascial incisions for laparoscopic ports larger than 1 cm with a suture passer. Close skin incisions according to surgeon preference.

Clinical Example (49616)

A 60-year-old obese male presents with an irreducible mass in the midline of the abdomen. He has a history of a previous laparotomy with an incisional hernia from that operation that was repaired 5 years ago. Over the course of the last few months, he has developed a recurrence that has been slowly

increasing in size. Suddenly, the hernia is not reducible, and the mass is tender with severe, unremitting pain. He undergoes hernia repair of a defect that is 3 to 10 cm with placement of mesh.

Description of Procedure (49616)

Obtain abdominal access and create a safe pneumoperitoneum with placement of a needle/trocar in the left upper quadrant. Insert the camera and verify safe entry. Place additional trocars in the lateral abdomen under direct vision. A large field of adhesions occupies approximately half of the anterior abdominal wall correlating with the extent of the prior laparotomy and hernia repair. Carefully reduce the incarcerated/ strangulated bowel, mesentery, and omentum with dissection of the adhesions from prior mesh to expose and to clear the defects for repair. This requires manipulation both intra-abdominally with minimally invasive instrumentation and extra-abdominally with palpation and pressure applied to the abdominal wall to reduce the incarcerated contents. Examine the reduced tissue for viability and any inadvertent injury. Reduce the hernia sac and resect as needed to expose the fascial edges of the defect(s). Visualize the hernia defect(s). Create peritoneal flaps for placement of mesh. Clear the falciform ligament and preperitoneal fat from the abdominal wall fascia to expose the posterior fascia. Measure all of the defects. Approximate the fascial defect with suture. Select a mesh to provide adequate overlap of the hernia defect. Introduce a mesh into the peritoneal cavity through a trocar and orient. Reduce insufflation to facilitate mesh conformity to the anterior abdominal wall. Secure the mesh to the abdominal wall utilizing numerous sutures and/or tacks. Then suture the peritoneal flaps over the mesh to protect it from the abdominal viscera. Perform a complete camera survey of the abdomen and contents to inspect for bleeding and visceral injury and perform a final viability assessment of the material once incarcerated in the hernia sac. Irrigate as necessary. Close fascial incisions for laparoscopic ports larger than 1 cm with a suture passer. Close skin incisions according to surgeon preference.

Clinical Example (49617)

A 60-year-old obese male presents with an irreducible mass in the midline of the abdomen. He has a history of a previous laparotomy with an incisional hernia from that operation that was repaired 5 years ago. Over the course of the last few months, he has developed a recurrence that has been slowly increasing in size but is reducible. He undergoes hernia repair of a defect that totals more than 10 cm with placement of mesh.

Description of Procedure (49617)

Obtain abdominal access and create a safe pneumoperitoneum with placement of a needle/trocar. Because the hernia extends across the majority of the anterior abdominal wall, select the location for insertion of the needle/trocar based on the prior surgical history and the safest location to avoid intra-abdominal injury. Insert the camera and verify safe entry. Place additional trocars in the lateral abdomen, and in additional areas as needed, all under direct vision. A field of adhesions occupies the entire anterior abdominal wall correlating with the extent of the prior laparotomy and hernia repair. Perform the careful process of adhesiolysis to clear adhesions from between omentum, small intestines and colon, and the abdominal wall and prior mesh. Each separate defect within the entire hernia defect contains adipose and intestinal components and requires a safe and effective clearance of tissue. Visualize the hernia defect. Clear the falciform ligament and preperitoneal fat from the abdominal wall fascia to expose the posterior fascia to include wide lateral clearance for adequate later mesh coverage. Create peritoneal flaps for placement of mesh. Approximate the fascial defect with sutures placed along the entire length of the defect. Calculate the appropriate size mesh after total defect length is documented. Adequate overlap of at least 5 cm in all directions is included in the calculation. Remove a trocar from the abdominal wall and dilate the track to allow insertion of the large mesh into the peritoneal cavity. Orient the mesh intra-abdominally. Reduce insufflation to facilitate mesh conformity to the anterior abdominal wall. Secure the mesh to the abdominal wall utilizing multiple sutures and numerous tacks. Then suture the peritoneal flaps over the mesh to protect it from the abdominal viscera. Perform a complete camera survey of the abdomen and contents to inspect for bleeding and visceral injury. Irrigate as necessary. Close fascial incisions from laparoscopic ports larger than 1 cm with a suture passer. Close skin incisions according to surgeon preference.

Clinical Example (49618)

A 60-year-old obese male presents with an irreducible mass in the midline of the abdomen. He has a history of a previous laparotomy with an incisional hernia from that operation that was repaired 5 years ago. Over the course of the last few months, he has developed a recurrence that has been slowly increasing in size and is now tender and irreducible. He undergoes hernia repair of a defect that totals more than 10 cm with placement of mesh.

Description of Procedure (49618)

Obtain abdominal access and create a safe pneumoperitoneum with placement of a needle/trocar. Because the hernia extends across the majority of the anterior abdominal wall, select the location for insertion of the needle/trocar based on the prior surgical history and the safest location to avoid intra-abdominal injury. Insert the camera and verify safe entry. Place additional trocars in the lateral abdomen under direct vision. A large field of adhesions occupies the entire anterior abdominal wall correlating with the extent of the prior laparotomy. Perform the careful process of adhesiolysis to clear adhesions from between omentum, small intestines and colon, and the abdominal wall and prior mesh. Each separate defect within the entire hernia defect contains adipose and intestinal components and requires a safe and effective clearance of tissue. Carefully reduce the incarcerated/strangulated bowel, mesentery, and omentum with dissection of the adhesions and sac to clear all the defects for repair. Take care to avoid injury to the incarcerated tissue. This requires manipulation both intra-abdominally with minimally invasive instrumentation and extra-abdominally with palpation and pressure applied to the abdominal wall to reduce the incarcerated contents. Examine the reduced tissue for viability and any inadvertent injury. Clear the falciform ligament and preperitoneal fat from the abdominal wall fascia to expose all defects and enough surface for mesh overlap. Reduce the hernia sac and resect as needed to expose the fascial edges of the defect(s). Visualize the hernia defect. Measure the defects with a minimum craniocaudal length greater than 10 cm. Create peritoneal flaps for placement of mesh. Approximate the fascial defect with sutures placed along the entirety of the defect. Calculate the appropriate size mesh after total defect length is documented. Adequate overlap of at least 5 cm in all directions is included in the calculation. Remove a trocar from the abdominal wall and dilate the track to allow insertion of the large mesh into the peritoneal cavity. Orient the mesh intra-abdominally. Reduce insufflation to facilitate mesh conformity to the anterior abdominal wall. Secure the mesh to the abdominal wall utilizing sutures and tacks. Then suture the peritoneal flaps over the mesh to protect it from the abdominal viscera. Perform a complete camera survey of the abdomen and contents to inspect for bleeding and visceral injury and perform a final viability assessment of the material once incarcerated in the hernia sac. Irrigate as necessary. Close fascial incisions for laparoscopic ports larger than 1 cm with a suture passer. Close skin incisions according to surgeon preference.

Clinical Example (49621)

A 70-year-old male with history of rectal cancer with subsequent abdominoperineal resection and end colostomy presents with a worsening bulge around his stoma when coughing, pain and discomfort around the stoma, and difficulty keeping the stoma appliance in place due to leakage. CT scan revealed small bowel in the hernia sac. He undergoes parastomal hernia repair with placement of mesh.

Description of Procedure (49621)

Obtain abdominal access and create a safe pneumoperitoneum with placement of a needle/trocar. Insert the camera and verify safe entry. Place additional trocars in the lateral abdomen under direct vision. A large field of adhesions occupies the anterior abdominal wall surrounding the stoma site. Take down adhesions around the stoma sharply, avoiding injury to the stoma intestinal component traversing the abdominal wall. Perform the careful process of adhesiolysis to clear adhesions from between omentum, small intestines and colon, and the abdominal wall and prior mesh when present. Identify the hernia sac and take down adhesions within the sac. Excise the hernia sac. Narrow the hernia defect with suture, taking care to leave the appropriate size fascial defect for the colostomy yet avoiding an opportunity for intestinal contents to traverse the abdominal wall beside it allowing a recurrence. Mobilize the colon proximal to the colostomy to ensure that there is no tension on the colostomy. Insert the appropriate size mesh into the peritoneal cavity and fashion around the colostomy to cover the hernia defect also avoiding narrowing of the colostomy or offering space for material to traverse the abdominal wall beside it allowing a recurrence. Use sutures and tacks to anchor the mesh to the anterior abdominal wall. Perform a complete laparoscopic survey to inspect for bleeding and visceral injury. Irrigate as necessary. Obtain hemostasis. Close fascial incisions for laparoscopic ports larger than 1 cm with a suture passer. Close skin incisions according to surgeon preference. Remove the temporary closure suture from the stoma. Assess patency of the stoma prior to completion of the procedure.

Clinical Example (49622)

A 70-year-old male with history of rectal cancer, colon resection, and sigmoid colostomy presents with a worsening parastomal hernia associated with pain. The hernia cannot be reduced, and a CT scan indicates incarcerated small bowel loops in the parastomal hernia sac. He undergoes parastomal hernia repair with placement of mesh.

Description of Procedure (49622)

Obtain abdominal access and create a safe pneumoperitoneum with placement of a needle/trocar. Insert the camera and verify safe entry. Place additional

trocars in the lateral abdomen under direct vision. A large field of adhesions occupies the anterior abdominal wall surrounding the stoma site. Take down adhesions around the stoma sharply, avoiding injury to the stoma intestinal component traversing the abdominal wall. Perform the careful process of adhesiolysis to clear adhesions from between omentum, small intestines and colon, and the abdominal wall and prior mesh when present. Initiate the reduction of the incarcerated material. This requires manipulation both intraabdominally with minimally invasive instrumentation and extra-abdominally with palpation and pressure applied to the abdominal wall to reduce the incarcerated contents. Examine the reduced tissue for viability and any inadvertent injury. Identify the hernia sac and take down adhesions within the sac and excise the hernia sac. Narrow the hernia defect with suture, taking care to leave the appropriate size fascial defect for the colostomy yet avoiding an opportunity for intestinal contents to traverse the abdominal wall beside it allowing a recurrence. Mobilize the colon proximal to the colostomy to ensure that there is no tension on the colostomy. Insert the appropriate size mesh into the peritoneal cavity and fashion around the colostomy to cover the hernia defect also avoiding narrowing of the colostomy or offering space for material to traverse the abdominal wall beside it allowing a recurrence. Use sutures and tacks to anchor the mesh to the anterior abdominal wall to secure the mesh. Perform a completion laparoscopic survey to inspect for bleeding and visceral injury and perform a final viability assessment of the material once incarcerated in the hernia sac. Irrigate as necessary. Obtain hemostasis. Close fascial incisions for laparoscopic ports larger than 1 cm with a suture passer. Close skin incisions according to surgeon preference. Remove the temporary closure suture from the stoma. Assess patency of the stoma prior to completion of the procedure.

Clinical Example (49623)

At the time of hernia repair, a 64-year-old obese male who had mesh placed with a prior hernia repair now requires removal of the mesh to allow for an adequate repair of a new hernia. [Note: This is an add-on code. Only consider the additional work related to mesh removal.]

Description of Procedure (49623)

Utilizing electrocautery and sharp dissection, dissect the previously placed mesh from the abdominal wall fascia. Take care to prevent damage to the abdominal wall and intra-abdominal contents while removing the mesh in its entirety. Identify prior sutures and tacks and dissect from the abdominal wall. Obtain hemostasis in the abdominal wall over the surface area of the excised mesh.