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# 2024 Computed Tomography (CT) Abdomen

## *Diagnostic Imaging*

CT-Abdomen-HH



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# Computed Tomography (CT) Abdomen

**NCD 220.1**
*See also*, **NCD 220.1**: Computed Tomography at https://www.cms.gov/medicare-coverage-database/search.aspx *if applicable to individual's healthplan membership*.

## CT General Contraindications

Computed tomography (CT) may be contraindicated for **ANY** of the following: [1]

- Allergy to contrast (if contrast is used)
- Pregnancy
- Renal impairment and dialysis unmanageable (if contrast is used)

## Preamble: Pediatric Diagnostic Imaging

HealthHelp's clinical guidelines for the Diagnostic Imaging program, are intended to apply to both adults and pediatrics (21 years of age or younger), unless otherwise specified within the criteria.

## CT Abdomen Guideline

(*__NOTE__: *Ultrasound is clearly a safe imaging option and is the first imaging test of choice. CT or MRI can then be done as needed after equivocal ultrasound. Clinicians should exercise increased caution with CT imaging in children, pregnant women, and young adults due to the risks of exposure to ionizing radiation. Screening for pregnancy as part of a work-up is suggested to minimize the number of unexpected radiation exposures for women of childbearing age.*.)
(*__NOTE__: *For syndromes for which imaging starts in the pediatric individual, magnetic resonance imaging [MRI] is preferred*.)
Computed tomography (CT) of the abdomen is considered medically appropriate when the documentation demonstrates **ANY** of the following:

1. Cancer (eg, adrenal, liver, renal, spleen) is suspected or known for **ANY** of the following:
    a. Cancer is known, for follow-up (*see **Surveillance** section*)
    b. Mass (abdominal, adenoma, cystic mass/lesion, liver, pancreatic, renal) is known and **ANY** of the following: [13] [14]
        i. Abdominal mass is suspicious, for initial evaluation, **AFTER** ultrasound and/or physical exam were performed. [2] [13] [7]

ii. Abdominopelvic lymph node is abnormal (hard consistency, larger than 1 cm), incidental **AND** demonstrated on prior imaging and recommends follow-up (initial 3 month follow-up). [42]

iii. Surveillance (*__NOTE__: *One follow-up exam to ensure no suspicious change has occurred in a tumor in the abdomen and pelvis. No further surveillance CT unless tumor(s) are specified as highly suspicious or a change was found on the last follow-up CT, new/changing sign/symptoms or abnormal lab values*.)

2. Fistula is known **OR** fistula recurrence is suspected, in the abdomen. [23]
3. Hernia is suspected or known and **ANY** of the following:
   a. Complications from a hernia are suspected based on physical exam, prior imaging **OR** signs (eg, bowel changes, guarding, nausea, pain, vomiting) that are new or progressing. [41] [18]
   b. Hernia is suspected (incisional, occult, Spigelian, umbilical), with abdominal and pelvic pain, when prior physical exam **AND** prior imaging are non-diagnostic or indeterminate [16]
   c. Pre-operative planning [44]
   d. Recurrence is suspected **AND** ultrasound is non-diagnostic or indeterminate. [33]
4. Infection or inflammatory disease, limited to the abdomen, is suspected or known, for **ANY** of the following:
   a. Fluid collection is abnormal, limited to abdomen **AND** identified on prior imaging. [12] [40]
   b. Inflammatory bowel disease (eg, Crohn's disease, ulcerative colitis) is suspected, with abdominal pain and **ANY** of the following: (*__NOTE__: *For individuals under 35 years old, consider magnetic resonance enterography [MRE]*) [21] [7] [39] [9]
      i. Diarrhea is chronic or bloody.
      ii. Endoscopy with biopsy is non-diagnostic or indeterminate.
   c. Inflammatory bowel disease (eg, Crohn's disease, ulcerative colitis) is known, with persistent symptoms (eg, cramping, diarrhea, pain), requiring treatment re-evaluation or monitoring. [7] [21] [9] [21]
   d. Infection is known and abscess, localized to the abdomen, is suspected.
   e. Symptoms of infection (eg, elevated white blood cells, fever, loss of appetite, nausea, pain, vomiting) are new or progressing, based on physical exam or prior imaging, and **ANY** of the following:

i. Biliary disease is suspected, with pain localized to right upper quadrant **AND** prior ultrasound is non-diagnostic or indeterminate. [29]

ii. Epigastric pain or pain localized to left upper quadrant **AND** labs (eg, amylase, complete blood count [CBC], lipase, liver function tests [LFT]) **OR** prior imaging are non-diagnostic or indeterminate. [41]

5. Organ evaluation **OR** previous organ imaging is non-diagnostic or indeterminate and **ANY** of the following:

   a. Adrenal gland and **ANY** of the following: [24]

      i. Adrenal secreting tumor is suspected after full clinical work-up and biochemical profile.

      ii. Mass is known, greater than or equal to 4 cm, with **NO** history of cancer, for pre-operative planning.

      iii. Mass is suspected and **ALL** of the following: (*__NOTE__: *one follow-up in 6 to 12 months to document stability*)

         A. Size is 1 cm or more.

         B. Incidentally found

         C. **NO** history of malignancy

      iv. Pheochromocytoma, for localization, with clear biochemical evidence (eg, abdominal and pelvic imaging) [6]

      v. Von Hippel Landau disease: every other year surveillance when **magnetic resonance imaging (MRI) is contraindicated or unavailable**. [4]

   b. Liver and **ANY** of the following: [8]

      i. Adenoma is suspected; follow-up every 6 to 12 months. (*__NOTE__: *MRI is preferred*.)

      ii. Beckwith-Wiedemann syndrome is known, **MRI is contraindicated or unavailable, AND** ultrasound is abnormal, non-diagnostic or indeterminate **OR** AFP is rising.

      iii. Liver disease is chronic **OR** extra-hepatic liver cancer is known, liver lesion is less than 1 cm **AND** prior imaging is non-diagnostic or indeterminate.

      iv. Focal nodular hyperplasia is suspected and demonstrated on prior imaging, to confirm diagnosis. (*__NOTE__: *MRI is preferred*.)

      v. Hepatitis/hepatoma screening when ultrasound is abnormal, non-diagnostic or indeterminate. (*__NOTE__: *MRI is preferred*.) [26]

vi. Jaundice **OR** abnormal liver function tests (eg, alanine transaminase [ALT], alkaline phosphatase [ALP], serum bilirubin) **AND** prior ultrasound is abnormal, non-diagnostic or indeterminate. [20]

vii. Lesion is more than 1 cm **AND** prior ultrasound is non-diagnostic or indeterminate.

c. Pancreas and **ANY** of the following:

i. Cystic lesion is found on initial imaging.

ii. Insulinoma localization **AFTER** diagnosis is confirmed.

iii. Intraductal papillary mucinous neoplasm (IPMN) and mucinous cystic neoplasm (MCN) are known, **MRI/magnetic resonance cholangiopancreatography (MRCP) is contraindicated or unavailable AND** initial imaging is non-diagnostic or indeterminate, for surveillance as follows: [11]

A. Cyst is incidental and asymptomatic **AND** less than 5 mm; one follow-up at 3 years.

B. Cyst is 5 mm to 1 cm in size; follow-up every 2 years for 4 years. (*__NOTE__: *if stable, intervals can be lengthened*)

C. Cyst is 1 cm to 2 cm in size; follow-up every year for 2 years and if stable; follow-up every 2 years for 4 years. (*__NOTE__: *if stable, intervals can be lengthened*)

D. Cyst is 2 cm to 3 cm in size; follow-up every 6 to 12 months for 3 years and if stable; yearly for 4 years (*__NOTE__: *if stable, intervals can be lengthened) (Ultrasound may also be used*.).

E. Lesion is greater than 3 cm; MRI/CT or ultrasound follow-up every 6 months for 3 years; then ultrasound alternating every year for 4 years.

iv. Lifetime risk of developing pancreatic cancer is increased (based on genetic predisposition or family history), and **MRI/MRCP is contraindicated or unavailable** and **ANY** of the following:

A. Hereditary pancreatitis starting at age 40 years old **OR** 20 years after 1st attack; annual surveillance

B. Starting at age 50 years old **OR** 10 years younger than the earliest age of cancer affected first-degree relative (except with Peutz-Jeghers start at age 30 years to 35 years); annual surveillance

C. Von Hippel Lindau starting at age 16 years, at least every other year (abdominal ultrasound starting at age 8 years old)

d. Renal and **ANY** of the following: [43] [30] [15]

i. Mass is suspected **AND** prior imaging is non-diagnostic or indeterminate.

ii. Mass is cystic, indeterminate (**NOT** a simple renal cyst), **AND** surveillance Bosniak score is III or less. [43]

iii. Mass is solid and smaller than 1 cm; surveillance at 6 and 12 months, then annually.

iv. Polycystic kidney disease is known **AND MRI is contraindicated or unavailable**, for evaluation of total kidney volume.

v. Tuberous sclerosis and angiomyolipoma are known **AND** MRI is contraindicated or unavailable, for active surveillance.

vi. Von Hippel Lindau surveillance every other year for clear cell renal cell carcinoma to begin at age 16 years old (screening with ultrasound at age 8 years old). [4]

e. Spleen, for incidental findings, when prior imaging is non-diagnostic or indeterminate.

6. Pain in the abdomen is known, with unknown diagnosis/etiology, and **ANY** of the following: [29] [35]

a. Age over 65 years old with acute abdominal pain.

b. Initial workup is non-diagnostic or indeterminate. (***NOTE:** *initial workup must include: imaging [eg, ultrasound], laboratory testing [eg, CBC, chemistry, urinalysis, amylase/lipase if pancreatitis is suspected, liver function tests if hepatic disease is suspected.])*

7. Peri-procedural care to guide invasive abdominal procedure planning **OR** post-operative follow-up.

8. Vascular disease (eg, aneurysm, hematoma) is suspected or known, based on prior imaging **AND computed tomography angiography/magnetic resonance angiography (CTA/MRA) is contraindicated or unavailable**. (*__NOTE__: *unless ordered by specialist (eg, vascular surgeon*).)(*__NOTE__: *Aneurysm requires prior imaging to be an ultrasound*.) [10]

# Combination CT and MRI for Metastases Evaluation Guideline

Combination CT/MRI studies (5 or less concurrent studies, with a CT or MRI appropriate for cancer location: abdomen, brain, cervical spine, chest, lumbar spine, neck, pelvis and/or thoracic spine) for **ANY** of the following situations:

1. Cancer recurrence or metastasis is suspected.
2. Staging evaluation, for baseline pre-therapy
3. Surveillance following the National Comprehensive Cancer Network (NCCN) Guidelines recommended schedule (*See **Surveillance** section*)

**LCD 34415**
*See also*, **LCD 34415**: CT of the Abdomen and Pelvis at https://www.cms.gov/medicare-coverage-database/search.aspx *if applicable to individual's healthplan membership*.

**LCD 35391**
*See also*, **LCD 35391**: Multiple Imaging in Oncology at https://www.cms.gov/medicare-coverage-database/search.aspx *if applicable to individual's healthplan membership*.

# Abdominal Cancer Surveillance

Surveillance imaging (after cancer treatment) of the abdomen is considered medically appropriate when the documentation demonstrates **ANY** of the following:

# Ampullary Adenocarcinoma Surveillance reuse

### NCCN Ampullary Adenocarcinoma Version 2.2024

Ampullary Adenocarcinoma: No imaging surveillance suggested.

# Bone Cancer Surveillance

### NCCN Bone Cancer Version 1.2025

Bone cancer surveillance includes **ANY** of the following:

1. Chondrosarcoma surveillance for **ANY** of the following:
    a. Atypical cartilaginous tumor surveillance with **ALL** of the following:

i. Chest imaging every 6 to 12 months for 2 years, then annually as clinically indicated

ii. Primary site X-rays and/or cross-sectional imaging magnetic resonance imaging (MRI) (± contrast) or computed tomography (CT) (with contrast) every 6 to 12 months for 2 years, then annually as clinically indicated

b. Low-grade, extracompartmental appendicular tumor, grade I axial tumors or high-grade (grade II or III, clear cell or extracompartmental) tumors surveillance with **ALL** of the following:

i. Chest imaging every 3 to 6 months, may include CT at least every 6 months for 5 years, then annually for at least 10 years, as clinically indicated

ii. Primary site X-rays and/or cross-sectional imaging MRI (with and without contrast) or CT (with contrast) as clinically indicated.

2. Chordoma surveillance with **ALL** of the following:

a. Chest imaging every 6 months, with CT included, annually for 5 years, then annually thereafter as clinically indicated

b. Imaging of primary site, timing and modality (eg, MRI ± CT [both with contrast], X-ray) as clinically indicated up to 10 years

3. Ewing Sarcoma after primary treatment completed and stable/improved disease, surveillance with **ALL** of the following:

a. Chest imaging with X-ray or CT: every 3 months

b. Primary site imaging with MRI ± CT (both with contrast) and X-ray, increase intervals after 24 months and after 5 years, annually as clinically indicated (indefinitely) (*__NOTE__: *Consider PET/CT [head-to-toe] and/or bone scan.*)

4. Giant cell tumor of the bone surveillance with **ALL** of the following:

a. Chest imaging every 6 to 12 months for 4 years, then annually thereafter as clinically indicated

b. Surgical site imaging as clinically indicated (eg, CT and/or MRI, both with contrast, X-ray)

5. Osteosarcoma surveillance with primary site and chest imaging (using same imaging that was done for initial work-up) for **ANY** of the following: (*__NOTE__: *Consider PET/CT [head-to-toe] and/or bone scan*.)

a. Image every 3 months for years 1 and 2

b. Image every 4 months for year 3

c. Image every 6 months for years 4 and 5

d. Image annually for year 6 and thereafter, as clinically indicated

## Colon Cancer Surveillance

### NCCN Colon Cancer Version 5.2024

Colon cancer surveillance includes **ANY** of the following: (*__Note__: *Routine CEA monitoring and CT scanning are **NOT** recommended beyond 5 years.*)

1. Stage I disease surveillance: colonoscopy 1 year after surgery; if advanced adenoma, repeat in 1 year; if **NO** advanced adenoma, repeat in 3 years, then every 5 years.
2. Stage II or III disease surveillance includes **BOTH** of the following: (**NOTE**: *PET/CT is **NOT** indicated*.)
    a. CT chest, abdomen and pelvis every 6 to 12 months from date of surgery, for a total of 5 years.
    b. Colonoscopy in 1 year after surgery except if **NO** pre-operative colonoscopy due to obstructing lesion, colonoscopy in 3 to 6 months; if advanced adenoma, repeat in 1 year; if **NO** advanced adenoma, repeat in 3 years, then every 5 years.
3. Stage IV disease surveillance includes **BOTH** of the following:
    a. CT chest, abdomen and pelvis every 3 to 6 months for 2 years, then every 6 to 12 months for a total of 5 years.
    b. Colonoscopy in 1 year after surgery except if **NO** pre-operative colonoscopy due to obstructing lesion, colonoscopy in 3 to 6 months; if advanced adenoma, repeat in 1 year; if **NO** advanced adenoma, repeat in 3 years, then every 5 years.

## Esophageal and Esophagogastric Junction Cancer Surveillance

### NCCN Esophageal or Esophagogastric Junction Cancers Version 4.2024

Esophageal and esophagogastric junction cancer surveillance includes **ANY** of the following[1]:

1. Adenocarcinoma, squamous cell carcinoma; imaging studies as clinically indicated
2. Tumor classification is Tis (tumor in situ) or T1a (± Barret's esophagus [BE]), after endoscopic resection or ablation, imaging surveillance includes **ALL** of the following[2]:
    a. Upper gastrointestinal endoscopy (EGD) every 3 months for the 1st year

[1]Routine esophageal/esophagogastic junction cancers are **NOT** recommended for cancer-specific surveillance, for more than 5 years after the end of treatment.

[2]Imaging studies for surveillance are **NOT** recommended.

b. EGD every 6 months for the 2nd year

c. EGD annually thereafter (indefinitely)

3. Tumor classification is Tis, T1a, N0, after esophagectomy, imaging surveillance includes **ALL** of the following[3]:

   a. Upper gastrointestinal endoscopy (EGD) every 3 months for the 1stfirst year

   b. EGD every 6 months for the 2ndsecond year

   c. EGD annually thereafter (indefinitely)

4. Tumor classification T1b[a] (N0 on ultrasound) after endoscopic resection or ablation, imaging surveillance includes **ALL** of the following:

   a. Computed tomography (CT) chest/abdomen (+ contrast, unless **contraindicated**) may be considered every 6 months for the first 2 years and annually for up to 5 years

   b. EGD every 3 months for the first year, every 4 to 6 months for the second year, then annually thereafter (indefinitely)

5. Tumor classification T1b or greater, any N[a] or T1a N+, imaging surveillance includes esophagectomy performed with or **WITHOUT** adjuvant therapy then surveillance includes **ALL** of the following:

   a. Chest/abdomen CT (+ contrast, unless **contraindicated**) every 6 months for the first 2 years and annually for up to 5 years

   b. EGD as clinically indicated **OR** if **NOT**completely resected BE after ablation: EGD every 3 months for the first year, every 6 months for the second year, then annually indefinitely

6. Tumor classification any T and/or any N, with neoadjuvant chemotherapy **OR** chemoradiotherapy **AND** esophagectomy, with or **WITHOUT** adjuvant treatment, imaging surveillance includes chest/abdomen CT (+ contrast, unless **contraindicated**) every 6 months for up to 2 years, then annually for up to 5 years and EGD as clinically indicated.

7. Tumor classification (pretreatment) N0 to N+, T1b to T4, T4b, with definitive chemoradiation (without esophagectomy), surveillance imaging includes **ALL** of the following:

   a. Chest/abdomen CT (+ contrast unless **contraindicated**) every 3 to 6 months for the first 2 years and annually for up to 5 years

   b. EGD every 3 to 6 months for the first 2 years, then annually for 3 more years

[3]Imaging studies for surveillance are **NOT** recommended.

# Gastric Cancer Surveillance

### NCCN Gastric Cancer Version 4.2024

Gastric cancer surveillance includes **ANY** of the following[4]:

1. Tumor type Tis (successfully treated by endoscopic resection [ER]) surveillance with upper gastrointestinal (GI) endoscopy (EGD) every 6 months for 1 year, then annually for 3 years **AND** chest/abdomen/pelvis CT (+ contrast) as clinically indicated based on symptoms and concern for recurrence.
2. Tumor types: p stage I (T1a [treated by ER] or T1a, T1b, N0 [treated by surgical resection]) imaging surveillance includes **ANY** of the following:
    a. CT chest/abdomen/pelvis (oral **AND** intravenous [IV] contrast preferred) as clinically indicated
    b. If treated by ER, EGD every 6 months for 1 year, then annually for up to 5 years
    c. If treated by surgical resection, EGD as clinically indicated
3. Tumor types: p stage II/III or yp stage I to III (treated with neoadjuvant ± adjuvant therapy) surveillance imaging with chest/abdomen/pelvis CT (oral **AND** IV contrast), every 6 months for the first 2 years then annually up to 5 years **AND/OR** FDG-PET/CT or MRI as clinically indicated; **AND** if partial or total gastrectomy, EGD as clinically indicated.

# Gastrointestinal Stromal Tumors (GISTs) Surveillance

### NCCN Gastrointestinal Stromal Tumors Version 2.2024

Gastrointestinal stromal tumors (GISTs) surveillance includes **ANY** of the following:

1. After treatment for progressive disease, abdominal/pelvic CT or MRI to evaluate therapeutic response (consider PET/CT if CT results are ambiguous).
2. Completely resected primary disease, image with abdominal/pelvic CT every 3 to 6 months for 3 to 5 years, then annually thereafter. (*__NOTE__: *Less frequent imaging surveillance may be acceptable for low-risk or very small tumors [smaller than 2 cm]. More frequent imaging surveillance may be required for individuals with high-risk disease that discontinue TKI therapy.*)
3. **NOT** completely resected disease or discovery of metastatic disease during surgery, image with abdominal/pelvic CT every 3 to 6 months.
4. Progression may be determined by CT or MRI with clinical interpretation; FDG-PET/CT may be used to clarify if CT or MRI is ambiguous.

[4]Routine gastric cancer surveillance is **NOT** recommended beyond 5 years.

# Hepatocellular Carcinoma Surveillance

### NCCN Hepatocellular Carcinoma Version 3.2024

Hepatocellular carcinoma surveillance includes imaging with ultrasound **OR** multiphasic (+ contrast) computed tomography (CT) or magnetic resonance imaging (MRI) if ultrasound is non-diagnostic or indeterminate; every 6 months.

# Kidney Cancer Surveillance

### NCCN Kidney Cancer Version 2.2025

Kidney cancer surveillance includes **ANY** of the following:

1. Long-term surveillance after 5 years: abdominal imaging follow-up with increasing intervals (due to risk of metachoronous tumors/late recurrences). (*__NOTE__: *For higher stages of disease, consider chest imaging at increasing intervals.*)
2. Relapsed, stage IV and surgically **NOT** resectable disease surveillance includes **ALL** of the following:
    a. CT or MRI chest, abdomen and pelvis at baseline pre-treatment and at start of surveillance period with follow-up every 6 to 16 weeks
    b. MRI (preferred) or CT of head at baseline and clinically indicated (*__NOTE__: *Annual surveillance at physician discretion*)
    c. MRI of the spine and bone scan as clinically indicated
3. Stage I kidney cancer surveillance and **ANY** of the following:
    a. Follow-up during active surveillance includes **ALL** of the following;
        i. Abdominal computed tomography (CT) or magnetic resonance imaging (MRI) (± contrast, if **NO** contraindication) within 6 months of starting active surveillance; then CT, MRI or ultrasound (US) at least annually thereafter
        ii. Chest X-ray or CT for baseline, then annually to assess for pulmonary metastasis as clinically indicated (consider repeat chest imaging if intervention is planned)
    b. Follow-up after ablative techniques includes **ALL** of the following:
        i. Abdominal CT or MRI (± contrast, unless contraindicated) **OR** ultrasound (+ contrast) at 1 to 3 months, 6 months and 12 months, then annually thereafter
        ii. Chest X-ray or CT annually for 5 years for individuals with biopsy-proven, low-risk pathologic features (no sarcomatoid, low-grade [grade 1 or 2] RCC, non-diagnostic biopsies or **NO** prior biopsy)

c. Follow-up after partial or radical nephrectomy includes **ALL** of the following:

i. Abdominal CT or MRI within 3 to 12 months of surgery, then annually for up to 5 years or longer if clinically indicated (*__NOTE__: *More rigorous imaging schedule can be considered if positive margins or adverse pathologic features [such as sarcomatoid, high-grade [grade 3/4]*)

ii. Chest X-ray or CT annually for at least 5 years, then clinically as indicated. (*__NOTE__: *More rigorous imaging schedule (CT preferred) can be considered if positive margins or adverse pathologic features*)

4. Stage II kidney cancer surveillance, after a partial or radical nephrectomy, and **ANY** of the following;

a. Abdominal CT or MRI (*preferred*) for baseline, every 6 months for 2 years, then annually for up to 5 years or longer as clinically indicated (*__NOTE__: *More rigorous imaging schedule can be considered if positive margins or adverse pathologic features (such as sarcomatoid, high-grade [grade 3/4]*)

b. Chest X-ray or CT annually for 5 years, then as clinically indicated (*__NOTE__: *More rigorous imaging schedule (CT preferred) can be considered if positive margins or adverse pathologic features*)

5. Stage III kidney cancer **OR** follow-up after adjuvant therapy surveillance includes **ALL** of the following:

a. Abdominal CT or MRI for baseline and within 3 to 6 months after surgery, then CT, MRI (preferred) **OR** ultrasound (for category 2B for stage III) every 3 to 6 months for 3 years, then annually up to 5 years and as clinically indicated thereafter

b. Additional imaging (eg, bone scan, brain imaging), clinically as indicated

c. Chest CT for baseline and within 3 to 6 months, followed by continued imaging (CT preferred) every 3 to 6 months for at least 3 years, annually up to 5 years then clinically as indicated

## Mesothelioma: Peritoneal Surveillance

### NCCN Mesothelioma: Peritoneal Version 3.2024

Mesothelioma: Peritoneal surveillance includes CT chest/abdomen/pelvis every 3-6 months for 5 years then annually until 10 years.

## Neuroendocrine and Adrenal Cancer Surveillance

### NCCN Neuroendocrine and Adrenal Tumors Version 1.2024

Neuroendocrine and adrenal cancer surveillance includes **ANY** of the following:[5]

1. Adrenal gland tumors surveillance imaging includes **ANY** of the following:
    a. Localized disease: chest computed tomography (CT) (± contrast) and abdominal CT or magnetic resonance imaging (MRI) (+ contrast) every 12 weeks to 12 months up to 5 years, then clinically as indicated
    b. Locoregional unresectable or metastatic disease; chest CT (± contrast) and abdominal/pelvic CT or MRI (+ contrast) or FDG positron emission tomography (PET)/CT every 12 weeks to 12 months up to 5 years, then clinically as indicated
2. Carcinoid syndrome surveillance imaging includes **BOTH** of the following:
    a. Abdominal/pelvic multiphasic CT or MRI every 12 weeks to 12 months and chest CT (± contrast) as clinically indicated
    b. Echocardiogram every 1 to 3 years or as clinically indicated **without** known carcinoid heart disease (CHD) and at least annually for patients with established CHD.
3. Gastrointestinal (GI) tract (jejunum/ileum/colon, duodenum, rectum), lung and/or thymus neuroendocrine tumor (NET) surveillance includes imaging post-resection with **ANY** of the following:
    a. Jejunum/ilium/colon, duodenum, rectum and thymus, surveillance imaging with abdominal ± pelvic multiphasic CT or MRI according to **ONE** of the following levels of frequency:[6]
        i. Within 12 weeks to 12 months postoperatively
        ii. After 12 months, image every 12 to 24 months for 10 years
        iii. After 10 years as clinically indicated
    b. Lung/thymus tumors surveillance chest CT (± contrast) for primary tumors, (as clinically indicated for primary GI tumors) according to **ONE** of the following levels of frequency:
        i. Within 12 weeks to 12 months postoperatively
        ii. After 12 months, image every 12 to 24 months for 10 years
        iii. After 10 years as clinically indicated
4. Grade 3, well-differentiated neuroendocrine surveillance includes chest CT (± contrast) as clinically indicated for **ANY** of the following:
    a. Locally advanced/metastatic disease with favorable biology (low Ki-67 [eg, less than 55%], positive somastatin receptor [SSTR] based PET imaging) includes

[5]No surveillance is indicated for appendiceal tumors 2 cm or smaller without aggressive features.
[6]High-grade tumors may be appropriate for more frequent monitoring.

abdominal/pelvic MRI (+ contrast) or abdominal/pelvic multiphasic CT for surveillance with **ANY** of the following:

i. Resectable disease surveillance every 12 weeks to 24 weeks for 2 years, then every 6 to 12 months for up to 10 years and chest CT as clinically indicated

ii. Unresectable disease surveillance every 12 weeks to 24 weeks (depending on tumor biology) **AND** chest CT (± contrast); if clinically indicated.

b. Locally advanced/metastatic disease with unfavorable biology (high Ki-67 [eg 55% or higher], rapid growth rate, FDG avid tumors, negative SSTR-based PET imaging), includes surveillance imaging, every 8 weeks to 12 weeks (depending on tumor biology) with **ALL** of the following:

i. Abdominal/pelvic MRI (+ contrast) or abdominal/pelvic multiphasic CT and FDG PET/CT as clinically indicated

ii. Chest CT (± contrast) as clinically indicated

iii. FDG-PET/CT as clinically indicated

c. Locoregional disease (resectable) abdominal/pelvic MRI (+ contrast) or abdominal/pelvic multiphasic CT with frequency of **ONE** of the following:

i. Every 12 weeks to 24 weeks for 2 years (depending on tumor biology, Ki-67) and chest CT as clinically indicated

ii. Every 6 months to 12 months for up to 10 years (depending on tumor biology, Ki-67) and chest CT as clinically indicated

d. Multiple endocrine neoplasia, type 1 (MEN1) screening surveillance for **ANY** of the following tumor types: (*__NOTE__: *For prolonged surveillance, imaging studies without radiation are preferred.*)

i. Lung/thymic NETs: chest CT or MRI (+ contrast) every 1 to 3 years

ii. PanNET: abdominal/pelvic CT or MRI (+ contrast) every 1 to 3 years and consider serial endoscopic ultrasound (EUS)

iii. Parathyroid: if calcium rises, re-image with neck ultrasound and/or parathyroid sestamibi with single-photon emission computed tomography (SPECT) scan (SPECT-CT preferred) or 4D-CT

iv. Pituitary: pituitary or sella MRI (+ contrast) of the pituitary every 3 to 5 years

e. Poorly differentiated large or small cell carcinoma and/or mixed neuroendocrine/non-neuroendocrine neoplasm or unknown primary, imaging surveillance includes **ALL** of the following:

i. Resectable surveillance imaging includes **EITHER** chest CT (± contrast) with abdominal/pelvic MRI (+ contrast) **OR** chest/abdominal/pelvic multiphasic CT; every 12 weeks for the 1st year, and every 6 months thereafter

ii. Locoregional unresectable or metastatic disease surveillance imaging includes **EITHER** chest CT (± contrast) with abdominal/pelvic MRI (+ contrast) **OR** chest/abdominal/pelvic multiphasic CT; every 6 weeks to 16 weeks

f. Postoperative from potentially curative surgery surveillance for at least 10 years (longer if high-risk)

5. Pancreatic neuroendocrine tumor surveillance imaging, post-resection, includes chest CT (± contrast) as clinically indicated and abdominal multiphasic CT or MRI with imaging frequency of **ONE** of the following:[6]

a. Within 3 to 12 months postoperatively

b. After 12 months, image every 6 to 12 months for 10 years

c. After 10 years as clinically indicated

6. Pheochromocytoma/Paranganglioma surveillance imaging and **ANY** of the following:

a. Resectable disease, post-resection includes chest CT (± contrast) and abdominal/pelvic CT or MRI (+contrast), if clinically indicated with imaging frequency of **ONE** of the following:

i. 12 weeks to 12 months after resection

ii. Every 6 to 12 months for the 1st 3 years

iii. Annually from year 4 up to 10.

iv. Annually up to 10 years, then as clinically indicated

b. Locally unresectable disease or distant metastases includes **ANY** of the following:

i. Chest/abdominal/pelvic CT with contrast

ii. Chest CT (± contrast) and abdominal/pelvic MRI without contrast (if risk for hypertensive episode)

iii. FDG-PET/CT for bone dominant disease

iv. MIBG (meta-iodobenzylguanidine) with single-photon emission computerized tomography/CT (SPECT) (if previous MIBG-positive or concern for disease progression) prior to considering radionuclide therapy

v. SSTR-PET/CT or SSTR-PET/MRI (if previous SSTR-positive or concern for disease progression) prior to considering radionuclide therapy

**TIP**

NCCN recommends following the surveillance protocols from designated guidelines for the following hereditary endocrine neoplasia syndromes :

- Thyroid cancer guideline, use for: Multiple endocrine neoplasia, type 2 (MEN2) with genetic evaluation of inherited syndromes
- Kidney cancer, use for:
  - Hereditary paraganglioma/pheochromocytoma syndrome
  - Tuberous sclerosis complex (TSC1 and TSC2)
  - von Hippel Lindau syndrome (VHL)
- Genetic/Familial High-Risk Assessment: Breast, Ovarian, and Pancreatic, use for:
  - Neurofibromatosis type 1 (NF1)
  - Li-Fraumeni syndrome (TP53)
  - Lynch syndrome (MLH1, EPCAM/MSH2, MSH6, PMS2)
- Genetic/Familial High-Risk Assessment: Colorectal, use for:
  - Lynch syndrome (MLH1, EPCAM/MSH2, MSH6, PMS2)
  - Familial adenomatous polyposis (APC)

## Occult Primary Cancer Surveillance

### NCCN Occult Primary Cancer Version 2.2025

Occult primary cancer surveillance imaging for long-term surveillance includes diagnostic tests based on symptomatology.

## Ovarian, Fallopian Tube or Primary Peritoneal Cancers Surveillance

### NCCN Ovarian Cancer Including Fallopian Tube Cancer and Primary Peritoneal Cancer Version 3.2024

Ovarian, fallopian tube or primary peritoneal cancer surveillance includes **ALL** of the following:

1. Epithelial ovarian cancer, fallopian tube cancer, primary peritoneal cancer surveillance imaging with chest/abdominal/pelvis CT, MRI, PET/CT or PET (skull base to mid thigh) as clinically indicated.

2. Low-grade serous carcinoma and ovarian borderline epithelial tumors surveillance imaging with chest/abdominal/pelvis CT, MRI, PET/CT or PET (skull base to mid thigh) as clinically indicated.
3. Malignant germ cell/sex cord-stromal tumor surveillance for **ANY** of the following:
    a. Malignant germ cell dysgerminoma surveillance with abdominal/pelvic CT for **ONE** of the following:
        i. 1st year, every 3 to 4 months
        ii. 2nd year, every 6 months
        iii. 3rd to 5th year, every 12 months
        iv. After 5 years, as clinically indicated
    b. Malignant germ cell non-dysgerminoma surveillance with **ONE** of the following:
        i. 1st year, chest/abdomen/pelvis CT every 3 to 4 months
        ii. 2nd year, chest/abdomen/pelvis CT every 4 to 6 months
        iii. 3rd to 5th year, abdomen/pelvis CT every 6 to 12 months
        iv. After 5 years, as clinically indicated
    c. Malignant sex cord-stromal tumor surveillance imaging when symptomatic, elevated biomarkers or physical exam with suspicious findings. (Imaging may include chest x-ray, chest/abdominal/pelvic CT, MRI PET/CT or PET (all + contrast). (*__NOTE__: *Prolonged surveillance is recommended for granulosa cell tumors due to later recurrence [eg, 30 years].*)

## Pancreatic Adenocarcinoma Surveillance

### NCCN Pancreatic Adenocarcinoma Version 3.2024

Pancreatic adenocarcinoma surveillance includes post-operative surveillance imaging with chest CT and abdomen/pelvis CT or MRI (+ contrast) unless contraindicated.

## Soft Tissue Sarcoma Surveillance

### NCCN Soft Tissue Sarcoma Version 3.2024

Soft tissue sarcoma surveillance includes **ANY** of the following: *__NOTE__: *Contrasted imaging is preferred; for long term surveillance to minimize radiation exposure, X-rays or MRI may be substituted.*

1. Desmoid tumor (aggressive fibromatosis) imaging surveillance includes **ANY** of the following:

a. CT or MRI every 3 to 6 months for 2 to 3 years, then every 6 to 12 months thereafter

b. Ultrasound may be considered for select locations (eg, abdominal wall) for long-term follow-up

2. Retroperitoneal/intra-abdominal, after resection imaging surveillance includes CT or MRI (consider PET/CT) every 3 to 6 months for 2 to 3 years, then every 6 months for the next 2 years, then annually.

3. Stage IA/IB tumor surveillance includes **ALL** of the following:

   a. Chest imaging with CT (+contrast) or MRI (± contrast) as clinically indicated

   b. Magnetic resonance imaging (MRI) at baseline and periodically (frequency based on estimated recurrence)

4. Stage II/III resectable with acceptable functional outcomes surveillance includes **ANY** of the following:

   a. Chest imaging with CT (+contrast) or MRI (± contrast) at end of treatment and periodic imaging of primary site (based on estimated risk of locoregional recurrence)

   b. Chest imaging and imaging of primary site with CT (+contrast) or MRI (± contrast) as clinically indicated

5. Stage II, III or select stage IV (any T, N1, M0), resectable with adverse functional outcomes **OR** unresectable primary disease surveillance imaging includes **ANY** of the following:

   a. Baseline and periodic imaging of primary site as clinically indicated

   b. Chest imaging with CT (+contrast) or MRI (± contrast) as clinically indicated

6. Stage IV synchronous disease imaging surveillance includes **ANY** of the following:

   a. Chest and other known metastatic sites imaging with CT (+contrast) or MRI (± contrast) as clinically indicated

   b. MRI (± contrast) (preferred) and/or CT (+ contrast) at baseline and periodically (frequency based on estimated recurrence)

## Blood/Bone Marrow Cancers Surveillance section

## Acute Lymphoblastic Leukemia Surveillance

### NCCN Acute Lymphoblastic Leukemia Version 3.2024

Acute lymphoblastic leukemia: No imaging surveillance suggested.

## Acute Myeloid Leukemia Surveillance reuse

### NCCN Acute Myeloid Leukemia Version 2.2025

Blastic plasmacytoid dendritic cell neoplasm surveillance includes a repeat PET/CT for individuals with prior evidence of extramedullary disease.

## Chronic Lymphocytic Leukemia/Small Cell Lymphocytic Lymphoma Surveillance

### NCCN Chronic Lymphocytic Leukemia/Small Cell Lymphocytic Lymphoma Version 2.2025

Chronic lymphocytic leukemia/small cell lymphocytic lymphoma: No imaging surveillance suggested.

## Chronic Myeloid Leukemia Surveillance

### NCCN Chronic Myeloid Leukemia Version 3.2025

Chronic Myeloid Leukemia: No imaging surveillance suggested.

## Hairy Cell Leukemia Surveillance

### NCCN Hairy Cell Leukemia Version 1.2025

Hairy cell leukemia: No imaging surveillance suggested.

## Multiple Myeloma Surveillance

### NCCN Multiple Myeloma Version 1.2025

Multiple myeloma surveillance includes **ANY** of the following:

1. Multiple myeloma, surveillance imaging as clinically indicated with **ANY** of the following:
    a. CT scan, low dose
    b. FDG PET/CT
    c. MRI without contrast, whole-body
2. Smoldering myeloma, surveillance imaging annually (or more often as indicated) with **ANY** of the following:
    a. CT scan, low dose
    b. FDG PET/CT
    c. MRI (without contrast, whole body

# CT Abdomen Procedure Codes

**Table 1. CT Abdomen Associated Procedure Codes**

| CODE | DESCRIPTION |
|---|---|
| 74150 | Computed tomography, abdomen; without contrast material |
| 74160 | Computed tomography, abdomen; with contrast material(s) |
| 74170 | Computed tomography, abdomen; without contrast material, followed by contrast material(s) and further sections |

# CT Abdomen Summary of Changes

CT Abdomen guideline had the following version changes from 2023 to 2024:

- Added the following to keep in line with current evidence:
  - "Adrenal secreting tumor" indication under "Adrenal"
  - "Beckwith-Wiedemann syndrome" indication under "Liver"
  - "Cancer is known" indication under "Cancer is suspected or known"
  - Combination CT and/or MRI for Metastasis Evaluation reuse piece
  - "Focal nodular hyperplasia" indication under "Liver"
  - Indications under "Inflammatory bowel disease is suspected"
  - "Insulinoma" indication under "Pancreatitis"
  - "Lesion is indeterminate" indication under "Liver"
  - "Lifetime risk" indication under "Pancreas"
  - "MEN1" indication under "Pancreas"
  - "Multiple endocrine neoplasia 1" indication under "Adrenal"
  - "Organ evaluation" indication
  - "Pheochromocytoma" indication under "Adrenal"
  - "Renal" indication under "Organ evaluation"
  - "Spleen" indication under "Organ evaluation"
  - "Surveillance" indication under "Mass (abdominal, adenoma, cystic mass/lesion...)"
  - "Vascular disease" indication
  - "Von Hippel Landau" indication under "Adrenal"
- Removed the following as current evidence does not support the indication:

- Cancer indications duplicated in Surveillance section
- "Edema" indication
- "Fistula" indication in the pediatric guideline
- "Hydronephrosis" indication
- "Mass is known" from Pediatric guideline under "Adrenal gland"
- "Peritonitis" indication under "Infection or inflammatory disease"
- "Recurrence or metastasis" indication under "Cancer is suspected or known"
- "Staging evaluation" under "Cancer is suspected or known"
- "Weight loss" indication

- Mid-cycle update: added Pediatric Preamble and pediatric indications

# CT Abdomen Definitions

**Abscess** is a swollen area within body tissue, containing an accumulation of pus.
**Adenoma** describes a benign tumor or a glandular structure or of glandular origin.
**Adrenal glands**, also known as suprarenal glands, are small, triangular-shaped glands located on top of both kidneys. Adrenal glands produce hormones that help regulate your metabolism, immune system, blood pressure, response to stress and other essential functions.
**Alanine Transaminase (ALT)** is an enzyme which promotes transfer of an amino group from glutamic acid to pyruvic acid and when present in abnormally high levels in the blood is a diagnostic indication of liver disease or damage.
**Alkaline phosphatase (ALP)** refers to any of the phosphatases that are optimally active in alkaline medium and occur in especially high concentrations in bone, the liver, the kidneys and the placenta. It is commonly used to diagnose liver damage or bone disorders.
**Alpha-fetoprotein (AFP)** is a fetal blood protein present abnormally in adults with some cancers (as of the liver) and normally in the amniotic fluid of pregnant women with high or low levels tending to be associated with certain birth defects (such as spina bifida or Down syndrome).
**Amylase** is an enzyme, or special protein, that helps digest carbohydrates. Most of the amylase in the body is made by the pancreas and salivary glands. A small amount of amylase in the blood and urine is normal.
**Angiomyolipoma** is a benign (noncancer) tumor of fat and muscle tissue that usually is found in the kidney. Angiomyolipomas rarely cause symptoms, but may bleed or grow large enough to be painful or cause kidney failure.
**Anorexia** is a prolonged loss of appetite.
**Aneurysm** refers to weakness in an artery wall, allowing it to abnormally balloon out or widen.

**Beckwith-Wiedemann syndrome (BWS)** is an inherited disease that is present at birth and is characterized especially by abdominal wall defects, increased birth weight, enlarged tongue, hypoglycemia, tumors usually of embryonic origin and enlargement of internal organs.
**Bilirubin** is a yellowish pigment that is produced when red blood cells break down. It is an important metabolite of heme, which coordinates iron in proteins.
**Biochemical profile** is a series of blood tests used to evaluate the functional capacity of several critical organs and systems, such as the liver and kidneys.
**Bosniak Classification System** is a system for classifying renal cystic masses based on imaging characteristics on contrast-enhanced computed tomography (CT). The classification system helps predict a risk of malignancy and suggests either follow up or treatment.
The Bosniak classification system divides renal cystic masses into five categories:

- Bosniak I:
  - Simple, benign cyst with imperceptible, rounded wall
  - ~0% malignant
  - **NO** follow-up required
- Bosniak 2:
  - Minimally complex
    - Few thin septa or calcifications
    - Non-enhancing attenuation
    - Renal lesions less than 3 cm
    - Well marginated
  - ~0% malignant
  - **NO** follow-up required
- Bosniak 2F:
  - Minimally complex
    - Hyperdense cyst greater than 3 cm diameter, mostly intrarenal (less than 25% of wall visible); no enhancement
    - Increased number of septa, minimally thickened with nodular or thick calcifications
    - Perceived (but not measurable) enhancement of a hairline-thins, mooth septa
  - ~5% malignant

    - Ultrasound/CT follow-up at 6 months
- Bosniak 3: Considered to have a malignancy risk greater than 80% and surgical excision is recommended in able-bodied patients.
    - Indeterminate with thick, nodular multiple septa or wall with measurable enhancement, hyperdenseon CT
    - ~55% malignant
    - Partial nephrectomy or radiofrequency ablation in elderly or poor surgical candidates
- Bosniak 4: Defined by their degree of complexity
    - Clearly malignant; solid mass with large cystic or necrotic component
    - ~100% malignant
    - Partial or total nephrectomy

**Cancer Antigen (CA) 19-9** is a tumor marker that can indicate advanced pancreatic cancer. It's also associated with cancers in the colon, stomach, and bile duct.
**Carcinoembryonic antigen (CEA)** is a glycoprotein present in fetal digestive-tract tissues and in peripheral blood of people with some forms of cancer.
**Computed tomography (CT)** refers to a computerized X-ray imaging procedure in which a three-dimensional image of a body structure is revealed through a series of cross-sectional images or "slices."
**Computed tomography angiography (CTA)** is a medical test that combines a computed tomography (CT) scan with an injection of a special dye to produce pictures of blood vessels and tissues in a part of the body.
**Crohn's disease** is chronic inflammation that typically involves the lower portion of the ileum, often spreads to the colon, and is characterized by diarrhea, cramping, loss of appetite and weight and the development of abscesses and scarring.
**Cyst** is a closed sac having a distinct membrane and developing abnormally in a cavity or structure of the body.
**Endoscopy** is a procedure that uses an endoscope to examine the inside of the body. An endoscope is a thin, tube-like instrument with a light and a lens for viewing. It may also have a tool to remove tissue to be checked under a microscope for signs of disease.
**Fistula** is an abnormal connection that leads from an abscess, hollow organ or part to the body surface, or from one hollow organ or part to another, and may be surgically created to permit passage of fluids or secretions.
**Focal nodular hyperplasia (FNH)** is a benign tumor or lesion that forms in the liver.
**Hepatitis** is inflammation of the liver.
**Hepatoma** is a usually malignant tumor of the liver.

**Hernia** is a gap in the muscular wall that allows the contents inside the abdomen to protrude outward.
**Incisional hernia** is a hernia that develops along a prior surgical incision in the abdomen.
**Indeterminate** findings are inconclusive or insufficient for treatment planning.
**Inflammatory bowel disease** is an autoimmune disorder that is characterized by chronic inflammation of the gastrointestinal (GI) tract.
**Insulinoma** is a usually benign insulin-secreting tumor of the islets of Langerhans (one of the clusters of small slightly granular endocrine cells that form anastomosing trabeculae among the tubules and alveoli of the pancreas and secrete insulin and glucagon).
**Intraductal papillary mucinous neoplasm (IPMN)** are cystic tumors of the pancreas that grow within the pancreatic ducts and produce mucin.
**Jaundice** is the yellowish pigmentation of the skin, tissues and body fluids caused by the deposition of bile pigments and indicates increased production or impaired excretion.
**Lipase** is a digestive enzyme that breaks down fats during digestion. It is produced in the pancreas, mouth, and stomach.
**Liver function tests (LFT)** are blood tests that measure different enzymes, proteins and other substances (eg, alanine transaminase [ALT], aspartate transaminase [AST], serum bilirubin) made by the liver.
**Magnetic resonance angiogram (MRA)** is a test that uses a magnetic field and pulses of radio wave energy to provide images of blood vessels inside the body, allowing for evaluation of blood flow and blood vessel wall condition. MRA is used to look for aneurysms, clots, tears in the aorta, arteriovenous malformations and stenosis caused by plaque in the carotid arteries (neck) or blood vessels leading to the lungs, kidneys or legs.
**Magnetic resonance cholangiopancreatography (MRCP)** is a type of MRI scan that uses computer software to create images of the pancreatic and bile ducts. It can also be used to see pancreatic cysts and blockages in the ducts.
**Magnetic resonance enterography (MRE)** is a type of magnetic resonance imaging (MRI) that uses a contrast material to produce detailed images of the small intestine and bowel.
**Magnetic resonance imaging (MRI)** is a non-invasive diagnostic technique that produces computerized images of internal body tissues and is based on nuclear magnetic resonance of atoms within the body induced by the application of radio waves.
**Metastases** is the spread of a disease-producing agency (such as cancer cells) from the initial or primary site of disease to another part of the body.
**Mucinous cystic neoplasm (MCN)** is a usually large uni- or multilocular thick-walled cyst, most often filled with mucinous fluid, but may also have a hemorrhagic or serous content.
**Necrosis** is localized death of living tissue.
**Non-diagnostic** is a result that does not lead to a confirmed diagnosis.
**Occult hernia** or hidden hernia, also commonly referred to as an occult inguinal hernia, is an undetectable mass of herniated tissue.

**Pancreatitis** is inflammation of the large lobulated gland of vertebrates that secretes digestive enzymes and the hormones insulin and glucagon. Symptoms include: fever, nausea, vomiting, severe abdominal pain, tachycardia, abdominal swelling. hypotension. elevated pancreatic enzymes and jaundce.

**Pediatric approximate ages** are defined by the US Department of Health (USDH), the Food and Drug Administration (FDA), and the American Academy of Pediatrics (AAP) as the following:

- Infancy, between birth and 2 years of age
- Childhood, from 2 to 12 years of age
- Adolescence, from 12 to 21 years of age, further defined by the AAP into:
    1. Early (ages 11–14 years)
    2. Middle (ages 15–17 years),
    3. Late (ages 18–21 years)
    4. Older ages may be appropriate for children with special healthcare needs.

**Peutz-Jeghers syndrome (PJS)** is a familial polyposis inherited as an autosomal dominant trait that is characterized by numerous polyps in the stomach, small intestine and colon along with melanin-containing spots on the skin and mucous membranes especially the lips and gums.

**Pheochromocytoma** is a small vascular tumor of the adrenal medulla, causing irregular secretions of epinephrine and norepinephrine, leading to attacks of raised blood pressure, palpitations and headaches.

**Polycystic kidney disease (PKD)** is a genetic disorder that causes fluid-filled cysts to grow in the kidneys. The cysts can grow very large and cause the kidneys to enlarge and lose function. PKD cysts can reduce kidney function and lead to kidney failure.

**Pseudocyst** is a fluid-filled cavity resembling a cyst but lacking a wall or lining.

**Recurrence** is a new occurrence of something that happened or appeared before.

**Spigelian hernia** is a rare ventral hernia that is defined as herniation of abdominal contents or peritoneum through a defect, namely the Spigelian fascia which is comprised of the transversus abdominis and the internal oblique aponeuroses.

**Staging** in cancer is the process of determining how much cancer is within the body (tumor size) and if it has metastasized (spread).

**Surveillance** in cancer is the ongoing, timely and systematic collection and analysis of information on new cancer cases, extent of disease, screening tests, treatment, survival and cancer deaths.

**Total Kidney Volume (TKV)** is the sum of the volume of the left and right kidneys. It is the primary measure of kidney growth and can provide information on disease status and progression.

**Tuberous sclerosis** is a genetic disorder of the skin and nervous system that is characterized by the formation of small benign tumors in various organs (such as the brain, kidney, eye and heart),

is accompanied by variable symptoms including seizures, developmental delay or intellectual disability, skin lesions (as hypopigmented macules of the trunk and limbs or telangiectatic facial papules), and is inherited as an autosomal dominant trait or results from spontaneous mutation.
**Ulcerative colitis (UC)** is a nonspecific inflammatory disease of the colon of unknown cause characterized by diarrhea with discharge of mucus and blood, cramping abdominal pain, inflammation and edema of the mucous membrane with patches of ulceration.
**Ultrasound** is the diagnostic or therapeutic use of ultrasound and especially a noninvasive technique involving the formation of images used for the examination and measurement of internal body structures and the detection of bodily abnormalities.
**Umbilical hernia** occurs when part of your intestine bulges through the opening in your abdominal muscles near your navel.
**Von Hippel-Lindau disease** is a rare genetic disease that is characterized by hemangiomas of the retina and cerebellum, cysts or tumors of the central nervous system, pancreas, kidneys, adrenals and reproductive organs that is typically inherited as an autosomal dominant trait.

# CT Abdomen References

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# Disclaimer & Legal Notice

## Purpose

The purpose of the HealthHelp's clinical guidelines is to assist healthcare professionals in selecting the medical service that may be appropriate and supported by evidence to safely improve outcomes. Medical information is constantly evolving, and HealthHelp reserves the right to review and update these clinical guidelines periodically. HealthHelp reserves the right to include in these guidelines the clinical indications as appropriate for the organization's program objectives. Therefore the guidelines are not a list of all the clinical indications for a stated procedure, and associated Procedure Code Tables may not represent all codes available for that state procedure or that are managed by a specific client-organization.

## Clinician Review

These clinical guidelines neither preempt clinical judgment of trained professionals nor advise anyone on how to practice medicine. Healthcare professionals using these clinical guidelines

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## Payment

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