

## Medical Coverage Policy | Hyperbaric Oxygen Therapy



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**POLICY LAST UPDATED:** 06 | 21 | 2016

### Overview

Hyperbaric oxygen therapy (HBOT) involves breathing 100% oxygen at pressures between 1.5 and 3.0 atmospheres (atm). It is generally applied systemically with the patient inside a hyperbaric chamber. HBOT can also be applied topically; that is, the body part to be treated is isolated (eg, in an inflatable bag and exposed to pure oxygen). HBOT has been investigated for various conditions that have potential to respond to increased oxygen delivery to the tissues,

### MEDICAL CRITERIA

#### Blue CHiP for Medicare and Commercial

##### Failure to respond to standard wound care

\*Failure to respond to standard wound care is defined as no measurable signs of healing after a minimum of 30 consecutive days of treatment. In addition, the clinical information submitted must document that all of the following have been addressed:

- I. assessment of a patient's vascular status and correction of any vascular problems in the affected limb if possible,
- II. nutritional status,
- III. glucose control (if diabetic),
- IV. debridement by any means to remove devitalized tissue,
- V. maintenance of a clean, moist bed of granulation tissue with appropriate moist dressings, appropriate off-loading, and
- VI. necessary treatment to resolve any infection that might be present.

### PRIOR AUTHORIZATION:

#### Blue CHiP for Medicare and Commercial

Prior authorization is recommended and obtained via the online tool for participating providers. See the Related Policies section.

### POLICY STATEMENT:

#### Blue CHiP for Medicare and Commercial

HBOT is covered with for the following conditions when filed with the applicable diagnosis noted in the coding section.

- Actinomycosis
- Acute carbon monoxide intoxication
- Acute traumatic peripheral ischemia
- Crush injuries and suturing of severed limbs
- Decompression illness
- Cyanide poisoning
- Gas embolism
- Gas gangrene
- Osteoradionecrosis
- Progressive necrotizing infections (necrotizing fasciitis)
- Soft tissue radionecrosis
- For any condition in which the severity warrants inpatient care (e.g., profound anemia with exceptional blood loss: only when blood transfusion is impossible or must be delayed)

- Pre- and post-treatment for patients undergoing dental surgery (non-implant related) of an irradiated jaw

For wounds that fail to respond to standard wound care, HBOT is medically necessary when the medical criteria is met.

HBOT is not medically necessary for services not meeting the medical criteria or diagnosis list as due to limited peer reviewed studies to support its clinical efficacy have not been established.

Topical hyperbaric oxygen therapy is not medically necessary its clinical efficacy has not been established.

For Simultaneous use of systemic HBOT and Negative Pressure wound closure, medical criteria for each device must be met using the web based authorization tool.

#### **COVERAGE:**

Benefits may vary between groups/contracts. Please refer to the appropriate Evidence of Coverage, Subscriber Agreement, or Benefit Booklet for applicable Rehabilitative/Surgery coverage.

#### **BACKGROUND**

Hyperbaric oxygen therapy (HBOT) is a technique of delivering higher pressures of oxygen to the tissues. Two methods of administration are available. In systemic or large hyperbaric oxygen chamber, the patient is entirely enclosed in a pressure chamber and breathes oxygen at a pressure greater than 1 atmosphere (atm; the pressure of oxygen at sea level). Thus, this technique relies on systemic circulation to deliver highly oxygenated blood to the target site, typically a wound. In addition, systemic HBOT can be used to treat systemic illness, such as air or gas embolism, carbon monoxide poisoning, or clostridial gas gangrene. Treatment may be carried out either in a monoplace chamber pressurized with pure oxygen or in a larger, multiplace chamber pressurized with compressed air, in which case the patient receives pure oxygen by mask, head tent, or endotracheal tube.

Topical hyperbaric therapy is a technique of delivering 100% oxygen directly to an open, moist wound at a pressure slightly higher than atmospheric pressure. It is hypothesized that the high concentrations of oxygen diffuse directly into the wound to increase the local cellular oxygen tension, which in turn promotes wound healing. Devices consist of an appliance to enclose the wound area (frequently an extremity) and a source of oxygen; conventional oxygen tanks may be used. The appliances may be disposable and may be used without supervision in the home by well-trained patients. Topical hyperbaric therapy has been investigated as a treatment of skin ulcerations resulting from diabetes, venous stasis, postsurgical infection, gangrenous lesion, decubitus ulcers, amputations, skin graft, burns, or frostbite. Note that this evidence review does not address topical oxygen therapy in the absence of pressurization.

The evidence for the use of systemic HBOT in individuals with nonhealing diabetic wounds of the lower extremities, acute traumatic ischemia, soft-tissue radiation necrosis (eg, radiation enteritis, cystitis, proctitis), osteoradionecrosis (ie, pre- and posttreatment), planned dental surgery (non-implant-related) of an irradiated jaw, gas gangrene, and profound anemia with exceptional blood loss when blood transfusion is impossible or must be delayed includes systematic reviews and/or recommendations from the Undersea and Hyperbaric Medical Society's (UHMS). Relevant outcomes include overall survival, symptoms, change in disease status, and functional outcomes. For all indications in the PICO note, evidence and/or USMS guidelines support use of HBOT. The evidence is sufficient to determine qualitatively that the technology results in a meaningful improvement in health outcomes.

The evidence for the use of systemic HBOT in individuals with any condition other than those specified in the policy are not medically necessary as the available studies do not demonstrate that HBOT improves relevant outcomes. The evidence is insufficient to determine the effects of the technology on health outcomes.

The evidence for the use of topical HBOT in individuals who might respond to increased oxygen delivery to tissues includes primarily of case series and case reports. Relevant outcomes are symptoms and change in disease status. Only 1 randomized controlled trial (RCT) was published on any indication. This study, in patients with diabetic foot ulcers, had a small sample size and did not find a significant benefit of topical HBOT. The evidence is insufficient to determine the effects of the technology on health outcomes.

**CODING:**

**The following code is medically necessary when filed with a covered diagnosis or medical criteria have been met:**

**99183** Physician attendance and supervision of hyperbaric oxygen therapy, per session

**G0277** Hyperbaric oxygen under pressure full body chamber,per 30 minutes

**The following codes are not medically necessary:**

**A4575** Topical hyperbaric oxygen chamber, disposable

**E0446** Topical oxygen delivery system, not otherwise specified, includes all supplies and accessories

**The following are covered ICD 9 and ICD 10 diagnosis:**

**ICD-9-CM codes:**

- 039.0** Cutaneous actinomycotic infection
- 039.1** Pulmonary actinomycotic infection
- 039.2** Abdominal actinomycotic infection
- 039.3** Cervicofacial actinomycotic infection
- 039.4** Madura foot
- 039.8** Actinomycotic infection of other specified sites
- 039.9** Actinomycotic infection of unspecified site
- 040.0** Gas gangrene
- 444.21** Arterial embolism and thrombosis of upper extremity
- 444.22** Arterial embolism and thrombosis of lower extremity
- 444.81** Embolism and thrombosis of iliac artery
- 526.89** Other specified diseases of the jaws
- 728.86** Necrotizing fasciitis
- 730.10** Chronic osteomyelitis, site unspecified
- 730.11** Chronic osteomyelitis involving shoulder region
- 730.12** Chronic osteomyelitis involving upper arm
- 730.13** Chronic osteomyelitis involving forearm
- 730.14** Chronic osteomyelitis involving hand
- 730.15** Chronic osteomyelitis involving pelvic region and thigh
- 730.16** Chronic osteomyelitis involving lower leg
- 730.17** Chronic osteomyelitis involving ankle and foot
- 730.18** Chronic osteomyelitis involving other specified sites
- 730.19** Chronic osteomyelitis involving multiple sites
- 902.53** Injury to iliac artery
- 903.01** Injury to axillary artery
- 903.1** Injury to brachial blood vessels
- 904.0** Injury to common femoral artery
- 904.41** Injury to popliteal artery
- 927.00** Crushing injury of shoulder region
- 927.01** Crushing injury of scapular region
- 927.02** Crushing injury of axillary region
- 927.03** Crushing injury of upper arm
- 927.09** Crushing injury of multiple sites of upper arm
- 927.10** Crushing injury of forearm

927.11	Crushing injury of elbow
927.20	Crushing injury of hand(s)
927.21	Crushing injury of wrist
927.8	Crushing injury of multiple sites of upper limb
927.9	Crushing injury of unspecified site of upper limb
928.00	Crushing injury of thigh
928.01	Crushing injury of hip
928.10	Crushing injury of lower leg
928.11	Crushing injury of knee
928.20	Crushing injury of foot
928.21	Crushing injury of ankle
928.3	Crushing injury of toe(s)
928.8	Crushing injury of multiple sites of lower limb
928.9	Crushing injury of unspecified site of lower limb
929.0	Crushing injury of multiple sites, not elsewhere classified
929.9	Crushing injury unspecified site
958.0	Air embolism as an early complication of trauma
986	Toxic effect of carbon monoxide
987.7	Toxic effect of hydrocyanic acid gas
989.0	Toxic effect of hydrocyanic acid and cyanides
990	Effects of radiation, unspecified
993.2	Other and unspecified effects of high altitude
993.3	Caisson disease
996.52	Mechanical complication due to other tissue graft, not elsewhere classified
996.90	Complications of reattached extremity or body part, unspecified extremity
996.91	Complications of reattached extremity or body part, forearm
996.92	Complications of reattached extremity or body part, hand
996.93	Complications of reattached extremity or body part, finger(s)
996.94	Complications of reattached extremity or body part, upper extremity, other and unspecified
996.95	Complications of reattached upper extremity or body part, foot and toe (s)
996.96	Complications of reattached extremity or body part, Other specified body part
996.99	Complication of other specified reattached body part
999.1	Air embolism as a complication of medical care, not elsewhere classified

**ICD-10-CM codes:**

A42.0	Pulmonary actinomycosis
A42.1	Abdominal actinomycosis
A42.2	Cervicofacial actinomycosis
A42.81	Actinomycotic meningitis
A42.82	Actinomycotic encephalitis
A42.89	Other forms of actinomycosis
A42.9	Actinomycosis, unspecified
A43.0	Pulmonary nocardiosis
A43.1	Cutaneous nocardiosis
A43.8	Other forms of nocardiosis
A43.9	Nocardiosis, unspecified
A48.0	Gas gangrene
B47.1	Actinomycetoma
B47.9	Mycetoma, unspecified
I74.2	Embolism and thrombosis of arteries of the upper extremities
I74.3	Embolism and thrombosis of arteries of the lower extremities

<b>I74.4</b>	Embolism and thrombosis of arteries of extremities, unspecified
<b>I74.5</b>	Embolism and thrombosis of iliac artery
<b>L08.1</b>	Erythrasma
<b>M27.8</b>	Other specified diseases of jaws
<b>M72.6</b>	Necrotizing fasciitis
<b>M86.30</b>	Chronic multifocal osteomyelitis, unspecified site
<b>M86.311</b>	Chronic multifocal osteomyelitis, right shoulder
<b>M86.312</b>	Chronic multifocal osteomyelitis, left shoulder
<b>M86.319</b>	Chronic multifocal osteomyelitis, unspecified shoulder
<b>M86.321</b>	Chronic multifocal osteomyelitis, right humerus
<b>M86.322</b>	Chronic multifocal osteomyelitis, left humerus
<b>M86.329</b>	Chronic multifocal osteomyelitis, unspecified humerus
<b>M86.331</b>	Chronic multifocal osteomyelitis, right radius and ulna
<b>M86.332</b>	Chronic multifocal osteomyelitis, left radius and ulna
<b>M86.339</b>	Chronic multifocal osteomyelitis, unspecified radius and ulna
<b>M86.341</b>	Chronic multifocal osteomyelitis, right hand
<b>M86.342</b>	Chronic multifocal osteomyelitis, left hand
<b>M86.349</b>	Chronic multifocal osteomyelitis, unspecified hand
<b>M86.351</b>	Chronic multifocal osteomyelitis, right femur
<b>M86.352</b>	Chronic multifocal osteomyelitis, left femur
<b>M86.359</b>	Chronic multifocal osteomyelitis, unspecified femur
<b>M86.361</b>	Chronic multifocal osteomyelitis, right tibia and fibula
<b>M86.362</b>	Chronic multifocal osteomyelitis, left tibia and fibula
<b>M86.369</b>	Chronic multifocal osteomyelitis, unspecified tibia and fibula
<b>M86.371</b>	Chronic multifocal osteomyelitis, right ankle and foot
<b>M86.372</b>	Chronic multifocal osteomyelitis, left ankle and foot
<b>M86.379</b>	Chronic multifocal osteomyelitis, unspecified ankle and foot
<b>M86.38</b>	Chronic multifocal osteomyelitis, other site
<b>M86.39</b>	Chronic multifocal osteomyelitis, multiple sites
<b>M86.40</b>	Chronic osteomyelitis with draining sinus, unspecified site
<b>M86.411</b>	Chronic osteomyelitis with draining sinus, right shoulder
<b>M86.412</b>	Chronic osteomyelitis with draining sinus, left shoulder
<b>M86.419</b>	Chronic osteomyelitis with draining sinus, unspecified shoulder
<b>M86.421</b>	Chronic osteomyelitis with draining sinus, right humerus
<b>M86.422</b>	Chronic osteomyelitis with draining sinus, left humerus
<b>M86.429</b>	Chronic osteomyelitis with draining sinus, unspecified humerus
<b>M86.431</b>	Chronic osteomyelitis with draining sinus, right radius and ulna
<b>M86.432</b>	Chronic osteomyelitis with draining sinus, left radius and ulna
<b>M86.439</b>	Chronic osteomyelitis with draining sinus, unspecified radius and ulna
<b>M86.441</b>	Chronic osteomyelitis with draining sinus, right hand
<b>M86.442</b>	Chronic osteomyelitis with draining sinus, left hand
<b>M86.449</b>	Chronic osteomyelitis with draining sinus, unspecified hand
<b>M86.451</b>	Chronic osteomyelitis with draining sinus, right femur
<b>M86.452</b>	Chronic osteomyelitis with draining sinus, left femur
<b>M86.459</b>	Chronic osteomyelitis with draining sinus, unspecified femur
<b>M86.461</b>	Chronic osteomyelitis with draining sinus, right tibia and fibula
<b>M86.462</b>	Chronic osteomyelitis with draining sinus, left tibia and fibula
<b>M86.469</b>	Chronic osteomyelitis with draining sinus, unspecified tibia and fibula
<b>M86.471</b>	Chronic osteomyelitis with draining sinus, right ankle and foot
<b>M86.472</b>	Chronic osteomyelitis with draining sinus, left ankle and foot
<b>M86.479</b>	Chronic osteomyelitis with draining sinus, unspecified ankle and foot
<b>M86.48</b>	Chronic osteomyelitis with draining sinus, other site

- M86.49** Chronic osteomyelitis with draining sinus, multiple sites
- M86.50** Other chronic hematogenous osteomyelitis, unspecified site
- M86.511** Other chronic hematogenous osteomyelitis, right shoulder
- M86.512** Other chronic hematogenous osteomyelitis, left shoulder
- M86.519** Other chronic hematogenous osteomyelitis, unspecified shoulder
- M86.521** Other chronic hematogenous osteomyelitis, right humerus
- M86.522** Other chronic hematogenous osteomyelitis, left humerus
- M86.529** Other chronic hematogenous osteomyelitis, unspecified humerus
- M86.531** Other chronic hematogenous osteomyelitis, right radius and ulna
- M86.532** Other chronic hematogenous osteomyelitis, left radius and ulna
- M86.539** Other chronic hematogenous osteomyelitis, unspecified radius and ulna
- M86.541** Other chronic hematogenous osteomyelitis, right hand
- M86.542** Other chronic hematogenous osteomyelitis, left hand
- M86.549** Other chronic hematogenous osteomyelitis, unspecified hand
- M86.551** Other chronic hematogenous osteomyelitis, right femur
- M86.552** Other chronic hematogenous osteomyelitis, left femur
- M86.559** Other chronic hematogenous osteomyelitis, unspecified femur
- M86.561** Other chronic hematogenous osteomyelitis, right tibia and fibula
- M86.562** Other chronic hematogenous osteomyelitis, left tibia and fibula
- M86.569** Other chronic hematogenous osteomyelitis, unspecified tibia and fibula
- M86.571** Other chronic hematogenous osteomyelitis, right ankle and foot
- M86.572** Other chronic hematogenous osteomyelitis, left ankle and foot
- M86.579** Other chronic hematogenous osteomyelitis, unspecified ankle and foot
- M86.58** Other chronic hematogenous osteomyelitis, other site
- M86.59** Other chronic hematogenous osteomyelitis, multiple sites
- M86.60** Other chronic osteomyelitis, unspecified site
- M86.611** Other chronic osteomyelitis, right shoulder
- M86.612** Other chronic osteomyelitis, left shoulder
- M86.619** Other chronic osteomyelitis, unspecified shoulder
- M86.621** Other chronic osteomyelitis, right humerus
- M86.622** Other chronic osteomyelitis, left humerus
- M86.629** Other chronic osteomyelitis, unspecified humerus
- M86.631** Other chronic osteomyelitis, right radius and ulna
- M86.632** Other chronic osteomyelitis, left radius and ulna
- M86.639** Other chronic osteomyelitis, unspecified radius and ulna
- M86.641** Other chronic osteomyelitis, right hand
- M86.642** Other chronic osteomyelitis, left hand
- M86.649** Other chronic osteomyelitis, unspecified hand
- M86.651** Other chronic osteomyelitis, right thigh
- M86.652** Other chronic osteomyelitis, left thigh
- M86.659** Other chronic osteomyelitis, unspecified thigh
- M86.661** Other chronic osteomyelitis, right tibia and fibula
- M86.662** Other chronic osteomyelitis, left tibia and fibula
- M86.669** Other chronic osteomyelitis, unspecified tibia and fibula
- M86.671** Other chronic osteomyelitis, right ankle and foot
- M86.672** Other chronic osteomyelitis, left ankle and foot
- M86.679** Other chronic osteomyelitis, unspecified ankle and foot
- M86.68** Other chronic osteomyelitis, other site
- M86.69** Other chronic osteomyelitis, multiple sites
- M86.8x0** Other osteomyelitis, multiple sites
- M86.8x1** Other osteomyelitis, shoulder
- M86.8x2** Other osteomyelitis, upper arm

**M86.8x3** Other osteomyelitis, forearm  
**M86.8x4** Other osteomyelitis, hand  
**M86.8x5** Other osteomyelitis, thigh  
**M86.8x6** Other osteomyelitis, lower leg  
**M86.8x7** Other osteomyelitis, ankle and foot  
**M86.8x8** Other osteomyelitis, other site  
**M86.8x9** Other osteomyelitis, unspecified sites  
**S35.511A** Injury of right iliac artery, initial encounter  
**S35.512A** Injury of left iliac artery, initial encounter  
**S35.513A** Injury of unspecified iliac artery, initial encounter  
**S45.001A** Unspecified injury of axillary artery, right side, initial encounter  
**S45.002A** Unspecified injury of axillary artery, left side, initial encounter  
**S45.009A** Unspecified injury of axillary artery, unspecified side, initial encounter  
**S45.011A** Laceration of axillary artery, right side, initial encounter  
**S45.012A** Laceration of axillary artery, left side, initial encounter  
**S45.019A** Laceration of axillary artery, unspecified side, initial encounter  
**S45.091A** Other specified injury of axillary artery, right side, initial encounter  
**S45.092A** Other specified injury of axillary artery, left side, initial encounter  
**S45.099A** Other specified injury of axillary artery, unspecified side, initial encounter  
**S45.101A** Unspecified injury of brachial artery, right side, initial encounter  
**S45.102A** Unspecified injury of brachial artery, left side, initial encounter  
**S45.109A** Unspecified injury of brachial artery, unspecified side, initial encounter  
**S45.111A** Laceration of brachial artery, right side, initial encounter  
**S45.112A** Laceration of brachial artery, left side, initial encounter  
**S45.119A** Laceration of brachial artery, unspecified side, initial encounter  
**S45.191A** Other specified injury of brachial artery, right side, initial encounter  
**S45.192A** Other specified injury of brachial artery, left side, initial encounter  
**S45.199A** Other specified injury of brachial artery, unspecified side, initial encounter  
**S45.201A** Unspecified injury of axillary or brachial vein, right side, initial encounter  
**S45.202A** Unspecified injury of axillary or brachial vein, left side, initial encounter  
**S45.209A** Unspecified injury of axillary or brachial vein, unspecified side, initial encounter  
**S45.211A** Laceration of axillary or brachial vein, right side, initial encounter  
**S45.212A** Laceration of axillary or brachial vein, left side, initial encounter  
**S45.219A** Laceration of axillary or brachial vein, unspecified side, initial encounter  
**S45.291A** Other specified injury of axillary or brachial vein, right side, initial encounter  
**S45.292A** Other specified injury of axillary or brachial vein, left side, initial encounter  
**S45.299A** Other specified injury of axillary or brachial vein, unspecified side, initial encounter  
**S47.1xxA** Crushing injury of right shoulder and upper arm, initial encounter  
**S47.2xxA** Crushing injury of left shoulder and upper arm, initial encounter  
**S47.9xxA** Crushing injury of shoulder and upper arm, unspecified arm, initial encounter  
**S57.00xA** Crushing injury of unspecified elbow, initial encounter  
**S57.01xA** Crushing injury of right elbow, initial encounter  
**S57.02xA** Crushing injury of left elbow, initial encounter  
**S57.80xA** Crushing injury of unspecified forearm, initial encounter  
**S57.81xA** Crushing injury of right forearm, initial encounter  
**S57.82xA** Crushing injury of left forearm, initial encounter  
**S67.20xA** Crushing injury of unspecified hand, initial encounter  
**S67.21xA** Crushing injury of right hand, initial encounter  
**S67.22xA** Crushing injury of left hand, initial encounter  
**S67.30xA** Crushing injury of unspecified wrist, initial encounter  
**S67.31xA** Crushing injury of right wrist, initial encounter  
**S67.32xA** Crushing injury of left wrist, initial encounter

**S67.40xA** Crushing injury of unspecified wrist and hand, initial encounter  
**S67.41xA** Crushing injury of right wrist and hand, initial encounter  
**S67.42xA** Crushing injury of left wrist and hand, initial encounter  
**S67.90xA** Crushing injury of unspecified part(s) of unspecified wrist, hand and fingers, initial encounter  
**S67.91xA** Crushing injury of unspecified part(s) of right wrist, hand and fingers, initial encounter  
**S67.92xA** Crushing injury of unspecified part(s) of left wrist, hand and fingers, initial encounter  
**S75.001A** Unspecified injury of femoral artery, right leg, initial encounter  
**S75.002A** Unspecified injury of femoral artery, left leg, initial encounter  
**S75.009A** Unspecified injury of femoral artery, unspecified leg, initial encounter  
**S75.011A** Minor laceration of femoral artery, right leg, initial encounter  
**S75.012A** Minor laceration of femoral artery, left leg, initial encounter  
**S75.019A** Minor laceration of femoral artery, unspecified leg, initial encounter  
**S75.021A** Major laceration of femoral artery, right leg, initial encounter  
**S75.022A** Major laceration of femoral artery, left leg, initial encounter  
**S75.029A** Major laceration of femoral artery, unspecified leg, initial encounter  
**S75.091A** Other specified injury of femoral artery, right leg, initial encounter  
**S75.092A** Other specified injury of femoral artery, left leg, initial encounter  
**S75.099A** Other specified injury of femoral artery, unspecified leg, initial encounter  
**S77.00xA** Crushing injury of unspecified hip, initial encounter  
**S77.01xA** Crushing injury of right hip, initial encounter  
**S77.02xA** Crushing injury of left hip, initial encounter  
**S77.10xA** Crushing injury of unspecified thigh, initial encounter  
**S77.11xA** Crushing injury of right thigh, initial encounter  
**S77.12xA** Crushing injury of left thigh, initial encounter  
**S77.20xA** Crushing injury of unspecified hip with thigh, initial encounter  
**S77.21xA** Crushing injury of right hip with thigh, initial encounter  
**S77.22xA** Crushing injury of left hip with thigh, initial encounter  
**S85.001A** Unspecified injury of popliteal artery, right leg, initial encounter  
**S85.002A** Unspecified injury of popliteal artery, left leg, initial encounter  
**S85.009A** Unspecified injury of popliteal artery, unspecified leg, initial encounter  
**S85.011A** Laceration of popliteal artery, right leg, initial encounter  
**S85.012A** Laceration of popliteal artery, left leg, initial encounter  
**S85.019A** Laceration of popliteal artery, unspecified leg, initial encounter  
**S85.091A** Other specified injury of popliteal artery, right leg, initial encounter  
**S85.092A** Other specified injury of popliteal artery, left leg, initial encounter  
**S85.099A** Other specified injury of popliteal artery, unspecified leg, initial encounter  
**S87.00xA** Crushing injury of unspecified knee, initial encounter  
**S87.01xA** Crushing injury of right knee, initial encounter  
**S87.02xA** Crushing injury of left knee, initial encounter  
**S87.80xA** Crushing injury of unspecified lower leg, initial encounter  
**S87.81xA** Crushing injury of right lower leg, initial encounter  
**S87.82xA** Crushing injury of left lower leg, initial encounter  
**S97.00xA** Crushing injury of unspecified ankle, initial encounter  
**S97.01xA** Crushing injury of right ankle, initial encounter  
**S97.02xA** Crushing injury of left ankle, initial encounter  
**S97.101A** Crushing injury of unspecified right toe(s), initial encounter  
**S97.102A** Crushing injury of unspecified left toe(s), initial encounter  
**S97.109A** Crushing injury of unspecified toe(s), initial encounter  
**S97.111A** Crushing injury of right great toe, initial encounter  
**S97.112A** Crushing injury of left great toe, initial encounter  
**S97.119A** Crushing injury of unspecified great toe, initial encounter  
**S97.121A** Crushing injury of right lesser toe(s), initial encounter

- S97.122A Crushing injury of left lesser toe(s), initial encounter
- S97.129A Crushing injury of unspecified lesser toe(s), initial encounter
- S97.80xA Crushing injury of unspecified foot, initial encounter
- S97.81xA Crushing injury of right foot, initial encounter
- S97.82xA Crushing injury of left foot, initial encounter
- T57.3x1A Toxic effect of hydrogen cyanide, accidental (unintentional), initial encounter
- T57.3x2A Toxic effect of hydrogen cyanide, intentional self-harm, initial encounter
- T57.3x3A Toxic effect of hydrogen cyanide, assault, initial encounter
- T57.3x4A Toxic effect of hydrogen cyanide, undetermined, initial encounter
- T58.01xA Toxic effect of carbon monoxide from motor vehicle exhaust, accidental (unintentional), initial encounter
- T58.02xA Toxic effect of carbon monoxide from motor vehicle exhaust, intentional self-harm, initial encounter
- T58.03xA Toxic effect of carbon monoxide from motor vehicle exhaust, assault, initial encounter
- T58.04xA Toxic effect of carbon monoxide from motor vehicle exhaust, undetermined, initial encounter
- T58.11xA Toxic effect of carbon monoxide from utility gas, accidental (unintentional), initial encounter
- T58.12xA Toxic effect of carbon monoxide from utility gas, intentional self-harm, initial encounter
- T58.13xA Toxic effect of carbon monoxide from utility gas, assault, initial encounter
- T58.14xA Toxic effect of carbon monoxide from utility gas, undetermined, initial encounter
- T58.2x1A Toxic effect of carbon monoxide from incomplete combustion of other domestic fuels, accidental (unintentional), initial encounter
- T58.2x2A Toxic effect of carbon monoxide from incomplete combustion of other domestic fuels, intentional self-harm, initial encounter
- T58.2x3A Toxic effect of carbon monoxide from incomplete combustion of other domestic fuels, assault, initial encounter
- T58.2x4A Toxic effect of carbon monoxide from incomplete combustion of other domestic fuels, undetermined, initial encounter
- T58.8x1A Toxic effect of carbon monoxide from other source, accidental (unintentional), initial encounter
- T58.8x2A Toxic effect of carbon monoxide from other source, intentional self-harm, initial encounter
- T58.8x3A Toxic effect of carbon monoxide from other source, assault, initial encounter
- T58.8x4A Toxic effect of carbon monoxide from other source, undetermined, initial encounter
- T58.91xA Toxic effect of carbon monoxide from unspecified source, accidental (unintentional), initial encounter
- T58.92xA Toxic effect of carbon monoxide from unspecified source, intentional self-harm, initial encounter
- T58.93xA Toxic effect of carbon monoxide from unspecified source, assault, initial encounter
- T58.94xA Toxic effect of carbon monoxide from unspecified source, undetermined, initial encounter
- T65.0x1A Toxic effect of cyanides, accidental (unintentional), initial encounter
- T65.0x2A Toxic effect of cyanides, intentional self-harm, initial encounter
- T65.0x3A Toxic effect of cyanides, assault, initial encounter
- T65.0x4A Toxic effect of cyanides, undetermined, initial encounter
- T66.xxxA Radiation sickness, unspecified, initial encounter
- T70.20xA Unspecified effects of high altitude, initial encounter
- T70.29xA Other effects of high altitude, initial encounter
- T70.3xxA Caisson disease [decompression sickness], initial encounter
- T79.0xxA Air embolism (traumatic), initial encounter
- T80.0xxA Air embolism following infusion, transfusion and therapeutic injection, initial encounter
- T85.613A Breakdown (mechanical) of artificial skin graft and decellularized allodermis, initial encounter
- T85.623A Displacement of artificial skin graft and decellularized allodermis, initial encounter
- T85.693A Other mechanical complication of artificial skin graft and decellularized allodermis, initial encounter
- T86.820 Skin graft (allograft) rejection

- T86.821** Skin graft (allograft) (autograft) failure
- T86.822** Skin graft (allograft) (autograft) infection
- T86.828** Other complications of skin graft (allograft) (autograft)
- T86.829** Unspecified complication of skin graft (allograft) (autograft)
- T87.0x1** Complications of reattached (part of) right upper extremity
- T87.0x2** Complications of reattached (part of) left upper extremity
- T87.0x9** Complications of reattached (part of) unspecified upper extremity
- T87.1x1** Complications of reattached (part of) right lower extremity
- T87.1x2** Complications of reattached (part of) left lower extremity
- T87.1x9** Complications of reattached (part of) unspecified lower extremity
- T87.2** Complications of other reattached body part

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