

## MEDICAL POLICY

<b>POLICY TITLE</b>	<b>HYPERBARIC OXYGEN PRESSURIZATION (HBO)</b>
<b>POLICY NUMBER</b>	<b>MP-2.070</b>

<b>Effective Date:</b>	<b>7/1/2023</b>
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### I. POLICY

Systemic hyperbaric oxygen pressurization may be considered **medically necessary** in the treatment of the following conditions:

- Actinomycosis, only as an adjunct to conventional therapy when the disease process is refractory to antibiotics (of at least 6 months) and surgical treatment
- Acute traumatic ischemia (e.g. crush injuries, frostbite, suturing of severed limbs, reperfusion injury, compartment syndrome) where there is recent trauma coupled with persistent ischemia to the traumatized tissue
- Arterial Insufficiency Ulcers of the lower extremities in patients who meet the following criteria:
  - The patient's wound has failed to heal despite standard wound care that includes either revascularization or who have been evaluated by vascular surgery and are not a candidate for revascularization;
  - The patient's ulcers are hypoxic (due to ischemia) and the hypoxia is reversible by hyperbaric oxygenation;
  - Tissue hypoxia, reversibility, and responsiveness to oxygen challenge will be measured by transcutaneous oximetry (TcPO<sub>2</sub>)
- Burns that are greater than 20% of total body surface area and/or deep partial or full thickness injury of the hands, face, feet, or perineum
- Carbon monoxide poisoning, acute
- Central Retinal Artery Occlusion (initiated within 24 hours of symptom onset);
- Chronic refractory osteomyelitis
- Compromised skin grafts or flaps
- Cyanide poisoning, acute
- Decompression sickness
- Gas embolism, acute
- Idiopathic Sudden Sensorineural Hearing Loss (ISSNHL) in adult patients who meet the following criteria:
  - As primary therapy in combination with steroid therapy within 2 weeks of onset of ISSNHL; or
  - As salvage therapy in combination with steroid therapy within 1 month of onset of ISSNHL
- Intracranial abscess with one or more of the following:
  - Multiple abscesses
  - Abscess in deep or dominant location

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- Atypical infection with impaired immune function
- Inadequate response to standard surgery and antibiotic treatment
- Necrotizing soft-tissue infections
- Non-healing diabetic wounds of the lower extremities in patients who meet the following three criteria:
  - Patient has type I or type II diabetes and has a lower extremity wound that is due to diabetes
  - Patient has a wound classified as Wagner grade 3 or higher (see policy guidelines); and
  - Patient has no measurable signs of healing after 30 days of an adequate course of standard wound therapy (see definitions)
- Pre- and post-treatment for patients undergoing dental surgery (non-implant-related) of an irradiated jaw
- Profound anemia with exceptional blood loss: only when blood transfusion is impossible or must be delayed
- Soft-tissue radiation necrosis (e.g., radiation enteritis, cystitis, proctitis)
- Osteoradionecrosis

Hyperbaric oxygen pressurization is considered **investigational** in all other situations including but not limited to the following conditions:

- Acute coronary syndromes and as an adjunct to coronary interventions, including but not limited to, percutaneous coronary interventions and cardiopulmonary bypass;
- Acute ischemic stroke
- Acute osteomyelitis
- Acute surgical wounds
- Autism spectrum disorders
- Bell's palsy
- Bone grafts
- Brown recluse spider bites
- Carbon tetrachloride poisoning, acute
- Cerebral edema, acute
- Cerebral palsy
- Cerebrovascular disease, acute (thrombotic or embolic) or chronic
- Chronic arm lymphedema following radiotherapy for cancer
- Chronic wounds, other than those in patients with diabetes and arterial insufficiency ulcers who meet the criteria specified in the medically necessary statement
- Delayed onset muscle soreness
- Demyelinating diseases (e.g., multiple sclerosis, amyotrophic lateral sclerosis)
- Early treatment (beginning at completion of radiation therapy) to reduce adverse effects of radiation therapy
- Fibromyalgia

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- Fracture healing
- Herpes Zoster
- Hydrogen sulfide poisoning
- Idiopathic femoral neck necrosis
- Inflammatory bowel disease (Crohn’s disease or ulcerative colitis)
- In vitro fertilization
- Intra-abdominal abscesses
- Lepromatous leprosy
- Meningitis
- Mental illness (i.e., posttraumatic stress disorder, generalized anxiety disorder or depression)
- Migraine
- Motor dysfunction associated with stroke
- Osteonecrosis of the jaw – bisphosphonate-related
- Pseudomembranous colitis (antimicrobial agent-induced colitis)
- Pyoderma gangrenosum
- Radiation myelitis
- Radiation-induced injury in the head and neck, except as noted earlier in the medically necessary statement
- Refractory mycoses - mucormycosis, canidiobolus coronato
- Retinopathy, adjunct to scleral buckling procedures in patients with sickle cell peripheral retinopathy and retinal detachment
- Sickle cell crisis and/or hematuria
- Spinal cord injury
- Traumatic brain injury
- Tumor sensitization for cancer treatments, including but not limited to, radiotherapy or chemotherapy
- Vascular dementia
- Venous ulcers

Topical hyperbaric oxygen therapy is considered **investigational**, as there is insufficient evidence to support a general conclusion concerning the health outcomes or benefits associated with this procedure.

Topical continuous oxygen therapy (TCOT), also known as transdermal continuous oxygen wound therapy is considered **investigational**, as there is insufficient evidence to support a general conclusion concerning the health outcomes or benefits associated with this procedure.

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### Policy Guidelines

#### Topical Hyperbaric Oxygen

A disposable appliance is positioned around the wound area creating a chamber which is pressurized with hyperbaric oxygen. Conventional oxygen tanks, typically gas, are used to supply the oxygen. Topical hyperbaric oxygen (HBO) may be performed in the office, clinic, or may be self-administered by the patient in the home. Typically, the therapy is offered for 90 minutes per day for 4 consecutive days. After a 3-day break, the cycle is repeated. The regimen may last for 8 to 10 weeks. An example of such a device is the AOTI Hyper-Box™.

#### Topical Continuous Oxygen Therapy (TCOT)

Devices that deliver topical oxygen to a wound at normal atmospheric pressure (normobaric) are not considered hyperbaric oxygen therapy. These devices may also be called low dose tissue oxygenation systems.

#### Systemic Hyperbaric Oxygen

Necrotizing Soft Tissue Infections includes Clostridial Myonecrosis (Gas Gangrene).

The Wagner classification system categorizes wounds as follows: grade 0, no open lesion; grade 1, superficial ulcer without penetration to deeper layers; grade 2, ulcer penetrates to tendon, bone, or joint; grade 3, lesion has penetrated deeper than grade 2 and there is abscess, osteomyelitis, pyarthrosis, plantar space abscess, or infection of the tendon and tendon sheaths; grade 4, wet or dry gangrene in the toes or forefoot; grade 5, gangrene involves the whole foot or such a percentage that no local procedures are possible and amputation (at least at the below the knee level) is indicated.

Following are suggestions from the Undersea and Hyperbaric Medical Society’s (UHMS) 2019 Hyperbaric Oxygen Therapy Committee report on utilization of HBOT (14th edition):

- Acute thermal burn injury
- Air or Gas Embolism
- Arterial Insufficiencies
  - Central Retinal Artery Occlusion
  - Selected Problem Wounds
- Carbon Monoxide Poisoning, acute
- Central retinal artery occlusion
- Clostridial Myositis and Myonecrosis (Gas Gangrene)
- Crush injury, compartment syndrome, and other acute traumatic ischemias
- Decompression Sickness
- Diabetic foot ulcer
- Intracranial abscess
- Compromised Grafts and Flaps
- Delayed Radiation Injuries (Soft Tissue and Bony Necrosis)
- Sudden Sensorineural Hearing Loss
- Intracranial Abscess

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- Necrotizing Soft Tissue Infections
- Refractory Osteomyelitis
- Severe Anemia

***Cross-reference:***

**MP 1.095** Treatment of Meniere’s Disease and Sudden Hearing Loss

**MP 2.304** Autism Spectrum Disorders

**MP 3.017** Air and Water Ambulance Services

**MP 4.004** Negative Pressure Wound Therapy in the Outpatient Setting

**MP 4.028** Wound & Burn Care & Specialized Treatment Centers

### II. PRODUCT VARIATIONS

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This policy is only applicable to certain programs and products administered by Capital Blue Cross and subject to benefit variations as discussed in Section VI. Please see additional information below.

**FEP PPO:** Refer to FEP Medical Policy Manual. The FEP Medical Policy manual can be found at:

<https://www.fepblue.org/benefit-plans/medical-policies-and-utilization-management-guidelines/medical-policies>.

### III. DESCRIPTION/BACKGROUND

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#### **HYPERBARIC OXYGEN THERAPY**

Hyperbaric oxygen therapy (HBOT) is a technique for delivering higher pressures of oxygen to tissue. Two methods of administration are available: systemic and topical.

#### **Systemic HBOT**

In systemic or large hyperbaric oxygen chambers, the patient is entirely enclosed in a pressure chamber and breathes oxygen at a pressure greater than 1 atmosphere (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. 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 HBOT**

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

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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.

**Adverse Events**

HBOT is a generally safe therapy, with an estimated adverse side effect rate of 0.4%. Adverse events may occur either from pressure effects or the oxygen. The pressure effect (barotrauma) may affect any closed air-filled cavity such as ears, sinus, teeth, and lungs. Pain and/or swelling may occur at these sites as pressure increases during the procedure, and decreases as the procedure is ending. Oxygen toxicity may affect the pulmonary, neurologic, or ophthalmologic systems. Pulmonary symptoms include a mild cough, substernal burning, and dyspnea. Neurologic effects include tunnel vision, tinnitus, nausea, and dizziness. Ophthalmologic effects include retinopathy in neonates, cataract formation, and transient myopic vision changes.

**Regulatory Status**

Since 1979, the U.S. Food and Drug Administration (FDA) has cleared multiple topical and systemic hyperbaric oxygen administration devices through the 510(k) pathway. In 2013, the FDA published a statement warning that non-FDA approved uses of HBOT may endanger the health of patients. If patients mistakenly believe that HBOT devices have been proven safe for uses not cleared by the FDA, they may delay or forgo proven medical therapies.

**IV. RATIONALE**

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**SUMMARY OF EVIDENCE**

For individuals with wounds, burns or infections who receive topical HBOT, the evidence includes a systematic review, case series, and a randomized controlled trial (RCT). Relevant outcomes are overall survival, symptoms, change in disease status, and functional outcomes. The systematic review identified 3 RCTs including patients with sacral pressure ulcers, ischial pressure ulcers, and refractory venous ulcers. All trials reported that healing improved significantly after HBOT than after standard of care. Pooling of results was not possible due to heterogeneity in patient populations and treatment regimens. The evidence is insufficient to determine the effects of the technology on health outcomes.

For individuals with chronic diabetic ulcers who receive systemic HBOT, the evidence includes RCTs and systematic reviews. Relevant outcomes are symptoms and change in disease status. Meta-analyses of RCTs found significantly higher diabetic ulcer healing rates with HBOT than with control conditions. Two of the 3 meta-analyses found that HBOT was associated with a significantly lower rate of major amputation. The evidence is sufficient to determine that the technology results in a meaningful improvement in the net health outcome.

For individuals with carbon monoxide poisoning who receive systemic HBOT, the evidence includes RCTs and a systematic review. Relevant outcomes are overall survival and symptoms. A meta-analysis in a Cochrane review of low-quality RCT data did not find HBOT to be associated with a significantly lower risk of neurologic deficits after carbon monoxide poisoning. The evidence is insufficient to determine the effects of the technology on health outcomes. However, clinical input obtained in 2010 and guidelines from the Undersea and Hyperbaric Medical Society and the 10th European Consensus Conference on Hyperbaric Medicine support

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HBOT for the treatment of acute carbon monoxide poisoning. Thus, based on clinical input and guideline support, the evidence is sufficient to determine that the technology results in a meaningful improvement in the net health outcome.

For individuals with radionecrosis, osteoradionecrosis, or treatment of irradiated jaw who receive systemic HBOT, the evidence includes RCTs and a systematic review. Relevant outcomes are symptoms and change in disease status. A meta-analysis in a Cochrane review of RCTs found evidence that HBOT improved radionecrosis and osteoradionecrosis outcomes and resulted in better outcomes before tooth extraction in an irradiated jaw. The evidence is sufficient to determine that the technology results in a meaningful improvement in the net health outcome

For individuals with chronic refractory osteomyelitis who receive systemic HBOT, the evidence includes case series. Relevant outcomes are symptoms and change in disease status. The case series reported high rates of successful outcomes (no drainage, pain, tenderness, or cellulitis) in patients with chronic refractory osteomyelitis treated with HBOT. However, controlled studies are needed to determine conclusively the impact of HBOT on health outcomes compared with other interventions. The evidence is insufficient to determine the effects of the technology on health outcomes. However, clinical input obtained in 2010 and Undersea and Hyperbaric Medical Society guidelines support HBOT for the treatment of chronic refractory osteomyelitis. Thus, based on clinical input and guideline support, the evidence is sufficient to determine that the technology results in a meaningful improvement in the net health outcome.

For individuals with acute thermal burns who receive systemic HBOT, the evidence includes a systematic review of 2 RCTs. Relevant outcomes are overall survival, symptoms, and change in disease status. Both RCTs were judged to have poor methodologic quality. Evidence from well-conducted controlled trials is needed. The evidence is insufficient to determine the effects of the technology on health outcomes. However, guidelines from the Undersea and Hyperbaric Medical Society and the 10th European Consensus Conference on Hyperbaric Medicine support HBOT for the treatment of acute thermal burns. Thus, based on guideline support, the evidence is sufficient to determine that the technology results in a meaningful improvement in the net health outcome.

For individuals with acute surgical and traumatic wounds who receive systemic HBOT, the evidence includes RCTs, controlled nonrandomized studies, and systematic reviews. Relevant outcomes are overall survival, symptoms, change in disease status, and functional outcomes. There was considerable heterogeneity across the 4 RCTs identified (e.g., patient population, comparison group, treatment regimen, outcomes). This heterogeneity prevented pooling of trial findings and limits the ability to conclude the impact of HBOT on health outcomes for patients with acute surgical and traumatic wounds. Additional evidence from high-quality RCTs is needed. The evidence is insufficient to determine the effects of the technology on health outcomes.

For individuals with bisphosphonate-related osteonecrosis of the jaw who receive systemic HBOT, the evidence includes an RCT. Relevant outcomes are symptoms and change in disease status. The RCT was unblinded and reported initial benefits at 3-month follow-up; however, there were no significant benefits of HBOT for most health outcomes compared with standard care in the long-term (6 months to 2 years). The evidence is insufficient to determine the effects of the technology on health outcomes.

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For individuals with necrotizing soft tissue infections who receive systemic HBOT, the evidence includes systematic reviews and a retrospective cohort study. Relevant outcomes are overall survival, symptoms, and change in disease status. A Cochrane review did not identify any RCTs. Another systematic review identified a retrospective cohort studies with methodological limitations did not find consistent benefit of adjunctive HBOT use. The evidence is insufficient to determine the effects of the technology on health outcomes. However, guidelines from the Undersea and Hyperbaric Medical Society support HBOT for the treatment of necrotizing soft tissue infections. Thus, based on guideline support, the evidence is sufficient to determine that the technology results in a meaningful improvement in the net health outcome.

For individuals with acute coronary syndrome who receive systemic HBOT, the evidence includes RCTs and a systematic review. Relevant outcomes are overall survival, symptoms, change in disease status, and functional outcomes. A Cochrane review identified 6 RCTs. There were 2 pooled analyses, one found significantly lower rates of death with HBOT and the other reported inconsistent results in left ventricular function. Additional RCT data are needed. The evidence is insufficient to determine the effects of the technology on health outcomes.

For individuals with acute ischemic stroke who receive systemic HBOT, the evidence includes RCTs and a systematic review. Relevant outcomes are overall survival, symptoms, change in disease status, and functional outcomes. Cochrane reviewers could only pool data for a single outcome (mortality at 3-6 months), and for that outcome, there was no significant difference between active and sham HBOT treatments. The evidence is insufficient to determine the effects of the technology on health outcomes.

For individuals with motor dysfunction associated with stroke who receive systemic HBOT, the evidence includes an RCT. Relevant outcomes are symptoms and functional outcomes. The RCT, which used a crossover design, found better outcomes with HBOT at 2 months than with delayed treatment. However, the trial had a number of methodologic limitations (e.g., lack of patient blinding, heterogeneous population, and high dropout rate) that make it difficult to evaluate the efficacy of HBOT. The evidence is insufficient to determine the effects of the technology on health outcomes.

For individuals with Bell palsy who receive systemic HBOT, the evidence includes a systematic review. Relevant outcomes are symptoms, change in disease status, and functional outcomes. A Cochrane review did not identify any RCTs meeting selection criteria; the single RCT found did not have a blinded outcome assessment. The evidence is insufficient to determine the effects of the technology on health outcomes.

For individuals with traumatic brain injury who receive systemic HBOT, the evidence includes RCTs and systematic reviews. Relevant outcomes are overall survival, symptoms, change in disease status, and functional outcomes. Multiple RCTs of US military service members showed no statistical difference in outcomes between HBOT groups and those that received sham treatment. Systematic reviews conducted pooled analyses only on a minority of the published RCTs, and these findings were inconsistent. The evidence is insufficient to determine the effects of the technology on health outcomes.

For individuals with inflammatory bowel disease who receive systemic HBOT, the evidence includes an RCT, observational studies, and a systematic review. Relevant outcomes are



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symptoms, change in disease status and functional outcomes. One small RCT has been published, and this trial did not find a significant improvement in health outcomes when HBOT was added to standard medical therapy. A systematic review including the RCT and observational studies found a high rate of bias in the literature due to attrition and reporting bias. The evidence is insufficient to determine the effects of the technology on health outcomes.

For individuals with idiopathic sudden sensorineural hearing loss who receive systemic HBOT, the evidence includes RCTs and a systematic review. Relevant outcomes are symptoms, change in disease status, and functional outcomes. A Cochrane review of RCTs had mixed findings from studies that included individuals with tinnitus. Some outcomes (i.e., improvement in hearing of all frequencies, >25% return of hearing) were better with HBOT than with a control intervention, but more than 50% return of hearing did not differ significantly between groups. There was important variability in the patients enrolled in the studies. A subsequent systematic review had similarly limited conclusions due to the inclusion of non-randomized studies. A third review found a higher proportion of patients with hearing recovery with HBOT compared to medical treatment alone, but the analysis was limited to 2 RCTs with methodological limitations. The evidence is insufficient to determine that the technology results in an improvement in the net health outcome. However, guidelines from the Undersea and Hyperbaric Medical Society and the American Academy of Otolaryngology–Head and Neck Surgery support HBOT for the treatment of ISSNHL. Thus, based on guideline support, the evidence is sufficient to determine that the technology results in a meaningful improvement in the net health outcome.

For individuals with delayed-onset muscle soreness who receive systemic HBOT, the evidence includes RCTs and a systematic review. Relevant outcomes are symptoms and functional outcomes. A Cochrane review of RCTs found worse short-term pain outcomes with HBOT than with control and no difference in longer term pain or other outcomes (e.g., swelling). The evidence is insufficient to determine the effects of the technology on health outcomes.

For individuals with autism spectrum disorder who receive systemic HBOT, the evidence includes an RCT and a systematic review. Relevant outcomes are symptoms and functional outcomes. A Cochrane review identified a single RCT on HBOT for autism spectrum disorder and this trial did not find significantly better parental-assessed or clinician-assessed outcomes with HBOT compared with sham. A subsequent controlled trial reached the same conclusion. The evidence is insufficient to determine the effects of the technology on health outcomes.

For individuals with cerebral palsy who receive systemic HBOT, the evidence includes 2 RCTs and an observational study. Relevant outcomes are symptoms and functional outcomes. One RCT was stopped early due to futility, and the other did not find significantly better outcomes with HBOT than with a sham intervention. The observational study focused on sleep disorders in children with cerebral palsy and reported improvements with the HBOT treatment. The evidence is insufficient to determine the effects of the technology on health outcomes.

For individuals with vascular dementia who receive systemic HBOT, the evidence includes an RCT and a systematic review. Relevant outcomes are symptoms and functional outcomes. The Cochrane review identified only a single RCT with methodologic limitations. Well-conducted controlled trials are needed. The evidence is insufficient to determine the effects of the technology on health outcomes.

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For individuals with radiotherapy adverse events who receive systemic HBOT, the evidence includes RCTs, nonrandomized comparator trials, case series, and systematic reviews. Relevant outcomes are symptoms and functional outcomes. Three systematic reviews included few RCTs and provide limited evidence on the effect of HBOT. Two RCTs identified had inconsistent findings. One reported no short-term benefit with HBOT, but some benefits 12 months after radiotherapy; the other did not find a significant benefit of HBOT at 12-month follow-up. Another RCT assessed HBOT for radiation-induced cystitis and found significant benefit by some measures but not others. An observational study for dry mouth (xerostomia) caused by radiotherapy found some benefit with HBOT. The evidence is insufficient to determine the effects of the technology on health outcomes.

For individuals with idiopathic femoral neck necrosis who receive systemic HBOT, the evidence includes an RCT. Relevant outcomes are symptoms, change in disease status, and functional outcomes. The RCT, which had a small sample, only reported short-term (i.e., 6-week) outcomes. Larger well-conducted RCTs reporting longer term outcomes are needed. The evidence is insufficient to determine the effects of the technology on health outcomes.

For individuals with a migraine who receive systemic HBOT, the evidence includes RCTs and a systematic review. Relevant outcomes are symptoms, change in disease status, and functional outcomes. The Cochrane review conducted a pooled analysis including 3 of the 11 trials. Meta-analysis of these 3 RCTs found significantly greater relief of migraine symptoms with HBOT than with a comparator intervention within 45 minutes of treatment. Longer term data are needed. The evidence is insufficient to determine the effects of the technology on health outcomes.

For individuals with herpes zoster who receive systemic HBOT, the evidence includes an RCT. Relevant outcomes are symptoms and change in disease status. The RCT was unblinded and only reported short-term (i.e., 6-week) outcomes. Additional well-conducted RCTs with longer follow-up are needed. The evidence is insufficient to determine the effects of the technology on health outcomes.

For individuals with fibromyalgia who receive systemic HBOT, the evidence includes RCTs. Relevant outcomes are symptoms, change in disease status, and functional outcomes. Only 2 RCTs were identified, and both reported positive effects of HBOT on tender points and pain. However, the trials had relatively small samples and methodologic limitations (e.g., quasi-randomization, no or uncertain sham control for a condition with subjective outcomes susceptible to a placebo effect). Moreover, the HBOT protocols varied. The evidence is insufficient to determine the effects of the technology on health outcomes.

For individuals with multiple sclerosis who receive systemic HBOT, the evidence includes RCTs and a systematic review. Relevant outcomes are symptoms and functional outcomes. A Cochrane review of RCTs did not find a significant difference in Expanded Disability Status Scale scores when patients with multiple sclerosis were treated with HBOT vs a comparator intervention. The evidence is insufficient to determine the effects of the technology on health outcomes.

For individuals with cancer and are undergoing chemotherapy who receive systemic HBOT, the evidence includes an RCT and a systematic review. Relevant outcomes are overall survival and change in disease status. While the systematic review reported improvements in tumor control in

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patients with head and neck cancer who received HBOT, the adverse events accompanying the treatment (e.g., radiation tissue injury, seizures) were significant. The single RCT did not find a significant difference in survival for cancer patients who received HBOT before chemotherapy compared with usual care. The evidence is insufficient to determine the effects of the technology on health outcomes.

### IV. DEFINITIONS

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**ATMOSPHERIC PRESSURE** is the pressure exerted by the weight of the atmosphere. The average atmospheric pressure at sea level is approximately 14.7 pounds per square inch. With increasing altitude, the pressure decreases. At 30,000 feet, approximately the height of Mt. Everest, the air pressure is 4.3 pounds per square inch.

**NORMOBARIC** denotes a barometric pressure equivalent to sea level pressure.

**STANDARD WOUND CARE:** Includes documentation by a physician prior to referral or at the wound clinic of assessment of a patient’s vascular status and correction of any vascular problems in the affected limb if possible, optimization of nutrition status, debridement by any means to remove devitalized tissue, maintenance of a clean, moist bed of granulation tissue with appropriate moist dressings, appropriate off-loading, and necessary treatment to resolve any infection that might be present.

**WAGNER ULCER GRADE CLASSIFICATION** is the system that classifies foot ulcers:

- Grade 0 — No open lesion;
- Grade 1 — Superficial ulcer without penetration to deeper layers.
- Grade 2 — Ulcer penetrates to tendon, bone or joint. Grade 3 — Lesion has penetrated deeper than grade 2 and there is abscess, osteomyelitis, pyarthrosis, plantar space abscess, or infection of the tendon and tendon sheaths;
- Grade 4 — Wet or dry gangrene in the toes or forefoot;
- Grade 5 — Gangrene involves the whole foot or such a percentage that no local procedures are possible and amputation (at least at the below the knee level) is indicated.

### V. BENEFIT VARIATIONS

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The existence of this medical policy does not mean that this service is a covered benefit under the member's health benefit plan. Benefit determinations should be based in all cases on the applicable health benefit plan language. Medical policies do not constitute a description of benefits. A member’s health benefit plan governs which services are covered, which are excluded, which are subject to benefit limits and which require preauthorization. There are different benefit plan designs in each product administered by Capital Blue Cross. Members and providers should consult the member’s health benefit plan for information or contact Capital Blue Cross for benefit information.

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### VI. DISCLAIMER

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*Capital Blue Cross's medical policies are developed to assist in administering a member's benefits, do not constitute medical advice and are subject to change. Treating providers are solely responsible for medical advice and treatment of members. Members should discuss any medical policy related to their coverage or condition with their provider and consult their benefit information to determine if the service is covered. If there is a discrepancy between this medical policy and a member's benefit information, the benefit information will govern. If a provider or a member has a question concerning the application of this medical policy to a specific member's plan of benefits, please contact Capital Blue Cross' Provider Services or Member Services. Capital Blue Cross considers the information contained in this medical policy to be proprietary and it may only be disseminated as permitted by law.*

### VII. CODING INFORMATION

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**Note:** This list of codes may not be all-inclusive, and codes are subject to change at any time. The identification of a code in this section does not denote coverage as coverage is determined by the terms of member benefit information. In addition, not all covered services are eligible for separate reimbursement.

#### Investigational; therefore, not covered:

Procedure Codes								
A4575	E0446							

#### Covered when medically necessary:

Procedure Codes								
G0277	99183							

ICD-10-CM Diagnosis Code	Description
A42.0	Pulmonary actinomycosis
A42.1	Abdominal actinomycosis
A42.2	Cervicofacial actinomycosis
A42.7	Actinomycotic sepsis
A42.81	Actinomycotic meningitis
A42.82	Actinomycotic encephalitis
A42.89	Other forms of actinomycosis
A42.9	Actinomycosis, unspecified
A48.0	Gas gangrene
A48.52	Wound botulism
D62	Acute posthemorrhagic anemia

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ICD-10-CM Diagnosis Code	Description
E08.52	Diabetes mellitus due to underlying condition with diabetic peripheral angiopathy with gangrene
E08.621	Diabetes mellitus due to underlying condition with foot ulcer
E08.622	Diabetes mellitus due to underlying condition with other skin ulcer
E09.52	Drug or chemical induced diabetes mellitus with diabetic peripheral angiopathy with gangrene
E09.621	Drug or chemical induced diabetes mellitus with foot ulcer
E09.622	Drug or chemical induced diabetes mellitus with other skin ulcer
E10.52	Type 1 diabetes mellitus with diabetic peripheral angiopathy with gangrene
E10.621	Type 1 diabetes mellitus with foot ulcer
E10.622	Type 1 diabetes mellitus with other skin ulcer
E11.52	Type 2 diabetes mellitus with diabetic peripheral angiopathy with gangrene
E11.621	Type 2 diabetes mellitus with foot ulcer
E11.622	Type 2 diabetes mellitus with other skin ulcer
E13.52	Other specified diabetes mellitus with diabetic peripheral angiopathy with gangrene
E13.621	Other specified diabetes mellitus with foot ulcer
E13.622	Other specified diabetes mellitus with other skin ulcer
G06.0	Intracranial abscess and granuloma
H34.10	Central retinal artery occlusion, unspecified eye
H34.11	Central retinal artery occlusion, right eye
H34.12	Central retinal artery occlusion, left eye
H34.13	Central retinal artery occlusion, bilateral
H90.3	Sensorineural hearing loss, bilateral
H90.41	Sensorineural hearing loss, unilateral, right ear, with unrestricted hearing on the contralateral side
H90.42	Sensorineural hearing loss, unilateral, left ear, with unrestricted hearing on the contralateral side
H90.A21	Sensorineural hearing loss, unilateral, right ear, with restricted hearing on the contralateral side
H90.A22	Sensorineural hearing loss, unilateral, left ear, with restricted hearing on the contralateral side
H91.20	Sudden idiopathic hearing loss, unspecified ear
H91.21	Sudden idiopathic hearing loss, right ear
H91.22	Sudden idiopathic hearing loss, left ear
H91.23	Sudden idiopathic hearing loss, bilateral
I73.9	Peripheral vascular disease, unspecified
I96	Gangrene, not elsewhere classified

## MEDICAL POLICY

<b>POLICY TITLE</b>	<b>HYPERBARIC OXYGEN PRESSURIZATION (HBO)</b>
<b>POLICY NUMBER</b>	<b>MP-2.070</b>

ICD-10-CM Diagnosis Code	Description
K52.0	Gastroenteritis and colitis due to radiation
K62.7	Radiation proctitis
L59.9	Disorder of the skin and subcutaneous tissue related to radiation, unspecified
L97.111	Non-pressure chronic ulcer of right thigh limited to breakdown of skin
L97.112	Non-pressure chronic ulcer of right thigh with fat layer exposed
L97.113	Non-pressure chronic ulcer of right thigh with necrosis of muscle
L97.114	Non-pressure chronic ulcer of right thigh with necrosis of bone
L97.121	Non-pressure chronic ulcer of left thigh limited to breakdown of skin
L97.122	Non-pressure chronic ulcer of left thigh with fat layer exposed
L97.123	Non-pressure chronic ulcer of left thigh with necrosis of muscle
L97.124	Non-pressure chronic ulcer of left thigh with necrosis of bone
L97.211	Non-pressure chronic ulcer of right calf limited to breakdown of skin
L97.212	Non-pressure chronic ulcer of right calf with fat layer exposed
L97.213	Non-pressure chronic ulcer of right calf with necrosis of muscle
L97.214	Non-pressure chronic ulcer of right calf with necrosis of bone
L97.221	Non-pressure chronic ulcer of left calf limited to breakdown of skin
L97.222	Non-pressure chronic ulcer of left calf with fat layer exposed
L97.223	Non-pressure chronic ulcer of left calf with necrosis of muscle
L97.224	Non-pressure chronic ulcer of left calf with necrosis of bone
L97.311	Non-pressure chronic ulcer of right ankle limited to breakdown of skin
L97.312	Non-pressure chronic ulcer of right ankle with fat layer exposed
L97.313	Non-pressure chronic ulcer of right ankle with necrosis of muscle
L97.314	Non-pressure chronic ulcer of right ankle with necrosis of bone
L97.321	Non-pressure chronic ulcer of left ankle limited to breakdown of skin
L97.322	Non-pressure chronic ulcer of left ankle with fat layer exposed
L97.323	Non-pressure chronic ulcer of left ankle with necrosis of muscle
L97.324	Non-pressure chronic ulcer of left ankle with necrosis of bone
L97.411	Non-pressure chronic ulcer of right heel and midfoot limited to breakdown of skin
L97.412	Non-pressure chronic ulcer of right heel and midfoot with fat layer exposed
L97.413	Non-pressure chronic ulcer of right heel and midfoot with necrosis of muscle
L97.414	Non-pressure chronic ulcer of right heel and midfoot with necrosis of bone
L97.421	Non-pressure chronic ulcer of left heel and midfoot limited to breakdown of skin
L97.422	Non-pressure chronic ulcer of left heel and midfoot with fat layer exposed
L97.423	Non-pressure chronic ulcer of left heel and midfoot with necrosis of muscle
L97.424	Non-pressure chronic ulcer of left heel and midfoot with necrosis of bone

## MEDICAL POLICY

<b>POLICY TITLE</b>	<b>HYPERBARIC OXYGEN PRESSURIZATION (HBO)</b>
<b>POLICY NUMBER</b>	<b>MP-2.070</b>

ICD-10-CM Diagnosis Code	Description
L97.511	Non-pressure chronic ulcer of other part of right foot limited to breakdown of skin
L97.512	Non-pressure chronic ulcer of other part of right foot with fat layer exposed
L97.513	Non-pressure chronic ulcer of other part of right foot with necrosis of muscle
L97.514	Non-pressure chronic ulcer of other part of right foot with necrosis of bone
L97.521	Non-pressure chronic ulcer of other part of left foot limited to breakdown of skin
L97.522	Non-pressure chronic ulcer of other part of left foot with fat layer exposed
L97.523	Non-pressure chronic ulcer of other part of left foot with necrosis of muscle
L97.524	Non-pressure chronic ulcer of other part of left foot with necrosis of bone
L97.811	Non-pressure chronic ulcer of other part of right lower leg limited to breakdown of skin
L97.812	Non-pressure chronic ulcer of other part of right lower leg with fat layer exposed
L97.813	Non-pressure chronic ulcer of other part of right lower leg with necrosis of muscle
L97.814	Non-pressure chronic ulcer of other part of right lower leg with necrosis of bone
L97.821	Non-pressure chronic ulcer of other part of left lower leg limited to breakdown of skin
L97.822	Non-pressure chronic ulcer of other part of left lower leg with fat layer exposed
L97.823	Non-pressure chronic ulcer of other part of left lower leg with necrosis of muscle
L97.824	Non-pressure chronic ulcer of other part of left lower leg with necrosis of bone
L98.411	Non-pressure chronic ulcer of buttock limited to breakdown of skin
L98.412	Non-pressure chronic ulcer of buttock with fat layer exposed
L98.413	Non-pressure chronic ulcer of buttock with necrosis of muscle
L98.414	Non-pressure chronic ulcer of buttock with necrosis of bone
L98.421	Non-pressure chronic ulcer of back limited to breakdown of skin
L98.422	Non-pressure chronic ulcer of back with fat layer exposed
L98.423	Non-pressure chronic ulcer of back with necrosis of muscle
L98.424	Non-pressure chronic ulcer of back with necrosis of bone
L98.491	Non-pressure chronic ulcer of skin of other sites limited to breakdown of skin
L98.492	Non-pressure chronic ulcer of skin of other sites with fat layer exposed
L98.493	Non-pressure chronic ulcer of skin of other sites with necrosis of muscle
L98.494	Non-pressure chronic ulcer of skin of other sites with necrosis of bone
M27.2	Inflammatory conditions of jaws
M27.8	Other specified diseases of jaws
M72.6	Necrotizing fasciitis
M86.30	Chronic multifocal osteomyelitis, unspecified site
M86.311	Chronic multifocal osteomyelitis, right shoulder
M86.312	Chronic multifocal osteomyelitis, left shoulder

## MEDICAL POLICY

<b>POLICY TITLE</b>	<b>HYPERBARIC OXYGEN PRESSURIZATION (HBO)</b>
<b>POLICY NUMBER</b>	<b>MP-2.070</b>

ICD-10-CM Diagnosis Code	Description
M86.321	Chronic multifocal osteomyelitis, right humerus
M86.322	Chronic multifocal osteomyelitis, left humerus
M86.331	Chronic multifocal osteomyelitis, right radius and ulna
M86.332	Chronic multifocal osteomyelitis, left radius and ulna
M86.341	Chronic multifocal osteomyelitis, right hand
M86.342	Chronic multifocal osteomyelitis, left hand
M86.351	Chronic multifocal osteomyelitis, right femur
M86.352	Chronic multifocal osteomyelitis, left femur
M86.361	Chronic multifocal osteomyelitis, right tibia and fibula
M86.362	Chronic multifocal osteomyelitis, left tibia and fibula
M86.369	Chronic multifocal osteomyelitis, unspecified tibia and fibula
M86.371	Chronic multifocal osteomyelitis, right ankle and foot
M86.372	Chronic multifocal osteomyelitis, left ankle and foot
M86.38	Chronic multifocal osteomyelitis, other site
M86.39	Chronic multifocal osteomyelitis, multiple sites
M86.411	Chronic osteomyelitis with draining sinus, right shoulder
M86.412	Chronic osteomyelitis with draining sinus, left shoulder
M86.421	Chronic osteomyelitis with draining sinus, right humerus
M86.422	Chronic osteomyelitis with draining sinus, left humerus
M86.431	Chronic osteomyelitis with draining sinus, right radius and ulna
M86.432	Chronic osteomyelitis with draining sinus, left radius and ulna
M86.441	Chronic osteomyelitis with draining sinus, right hand
M86.442	Chronic osteomyelitis with draining sinus, left hand
M86.451	Chronic osteomyelitis with draining sinus, right femur
M86.452	Chronic osteomyelitis with draining sinus, left femur
M86.461	Chronic osteomyelitis with draining sinus, right tibia and fibula
M86.462	Chronic osteomyelitis with draining sinus, left tibia and fibula
M86.471	Chronic osteomyelitis with draining sinus, right ankle and foot
M86.472	Chronic osteomyelitis with draining sinus, left ankle and foot
M86.48	Chronic osteomyelitis with draining sinus, other site
M86.49	Chronic osteomyelitis with draining sinus, multiple sites
M86.511	Other chronic hematogenous osteomyelitis, right shoulder
M86.512	Other chronic hematogenous osteomyelitis, left shoulder
M86.521	Other chronic hematogenous osteomyelitis, right humerus
M86.522	Other chronic hematogenous osteomyelitis, left humerus



## MEDICAL POLICY

<b>POLICY TITLE</b>	<b>HYPERBARIC OXYGEN PRESSURIZATION (HBO)</b>
<b>POLICY NUMBER</b>	<b>MP-2.070</b>

ICD-10-CM Diagnosis Code	Description
M86.531	Other chronic hematogenous osteomyelitis, right radius and ulna
M86.532	Other chronic hematogenous osteomyelitis, left radius and ulna
M86.541	Other chronic hematogenous osteomyelitis, right hand
M86.542	Other chronic hematogenous osteomyelitis, left hand
M86.551	Other chronic hematogenous osteomyelitis, right femur
M86.552	Other chronic hematogenous osteomyelitis, left femur
M86.561	Other chronic hematogenous osteomyelitis, right tibia and fibula
M86.562	Other chronic hematogenous osteomyelitis, left tibia and fibula
M86.571	Other chronic hematogenous osteomyelitis, right ankle and foot
M86.572	Other chronic hematogenous osteomyelitis, left ankle and foot
M86.58	Other chronic hematogenous osteomyelitis, other site
M86.59	Other chronic hematogenous osteomyelitis, multiple sites
M86.611	Other chronic osteomyelitis, right shoulder
M86.612	Other chronic osteomyelitis, left shoulder
M86.621	Other chronic osteomyelitis, right humerus
M86.622	Other chronic osteomyelitis, left humerus
M86.631	Other chronic osteomyelitis, right radius and ulna
M86.632	Other chronic osteomyelitis, left radius and ulna
M86.641	Other chronic osteomyelitis, right hand
M86.642	Other chronic osteomyelitis, left hand
M86.651	Other chronic osteomyelitis, right thigh
M86.652	Other chronic osteomyelitis, left thigh
M86.661	Other chronic osteomyelitis, right tibia and fibula
M86.662	Other chronic osteomyelitis, left tibia and fibula
M86.671	Other chronic osteomyelitis, right ankle and foot
M86.672	Other chronic osteomyelitis, left ankle and foot
M86.68	Other chronic osteomyelitis, other site
M86.69	Other chronic osteomyelitis, multiple sites
N30.40	Irradiation cystitis without hematuria
N30.41	Irradiation cystitis with hematuria
S07.0XXA	Crushing injury of face, initial encounter
S07.0XXD	Crushing injury of face, subsequent encounter
S07.0XXS	Crushing injury of face, sequela
S07.1XXA	Crushing injury of skull, initial encounter
S07.1XXD	Crushing injury of skull, subsequent encounter

## MEDICAL POLICY

<b>POLICY TITLE</b>	<b>HYPERBARIC OXYGEN PRESSURIZATION (HBO)</b>
<b>POLICY NUMBER</b>	<b>MP-2.070</b>

ICD-10-CM Diagnosis Code	Description
S07.1XXS	Crushing injury of skull, sequela
S07.8XXA	Crushing injury of other parts of head, initial encounter
S07.8XXD	Crushing injury of other parts of head, subsequent encounter
S07.8XXS	Crushing injury of other parts of head, sequela
S17.0XXA	Crushing injury of larynx and trachea, initial encounter
S17.0XXD	Crushing injury of larynx and trachea, subsequent encounter
S17.0XXS	Crushing injury of larynx and trachea, sequela
S17.8XXA	Crushing injury of other specified parts of neck, initial encounter
S17.8XXD	Crushing injury of other specified parts of neck, subsequent encounter
S17.8XXS	Crushing injury of other specified parts of neck, sequela
S28.0XXA	Crushed chest, initial encounter
S38.01XA	Crushing injury of penis, initial encounter
S38.01XD	Crushing injury of penis, subsequent encounter
S38.01XS	Crushing injury of penis, sequela
S38.02XA	Crushing injury of scrotum and testis, initial encounter
S38.02XD	Crushing injury of scrotum and testis, subsequent encounter
S38.02XS	Crushing injury of scrotum and testis, sequela
S38.03XA	Crushing injury of vulva, initial encounter
S38.03XD	Crushing injury of vulva, subsequent encounter
S38.03XS	Crushing injury of vulva, sequela
S38.1XXA	Crushing injury of abdomen, lower back, and pelvis, initial encounter
S38.1XXD	Crushing injury of abdomen, lower back, and pelvis, subsequent encounter
S38.1XXS	Crushing injury of abdomen, lower back, and pelvis, sequela
S47.1XXA	Crushing injury of right shoulder and upper arm, 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
S47.2XXA	Crushing injury of left shoulder and upper arm, initial encounter
S57.01XA	Crushing injury of right elbow, initial encounter
S57.01XD	Crushing injury of right elbow, subsequent encounter
S57.01XS	Crushing injury of right elbow, sequela
S57.02XA	Crushing injury of left elbow, initial encounter
S57.02XD	Crushing injury of left elbow, subsequent encounter
S57.02XS	Crushing injury of left elbow, sequela
S57.81XA	Crushing injury of right forearm, initial encounter
S57.81XD	Crushing injury of right forearm, subsequent encounter

## MEDICAL POLICY

<b>POLICY TITLE</b>	<b>HYPERBARIC OXYGEN PRESSURIZATION (HBO)</b>
<b>POLICY NUMBER</b>	<b>MP-2.070</b>

ICD-10-CM Diagnosis Code	Description
S57.81XS	Crushing injury of right forearm, sequela
S57.82XA	Crushing injury of left forearm, initial encounter
S57.82XD	Crushing injury of left forearm, subsequent encounter
S57.82XS	Crushing injury of left forearm, sequela
S67.01XA	Crushing injury of right thumb, initial encounter
S67.01XD	Crushing injury of right thumb, subsequent encounter
S67.01XS	Crushing injury of right thumb, sequela
S67.02XA	Crushing injury of left thumb, initial encounter
S67.02XD	Crushing injury of left thumb, subsequent encounter
S67.02XS	Crushing injury of left thumb, sequela
S67.190A	Crushing injury of right index finger, initial encounter
S67.190D	Crushing injury of right index finger, subsequent encounter
S67.190S	Crushing injury of right index finger, sequela
S67.191A	Crushing injury of left index finger, initial encounter
S67.191D	Crushing injury of left index finger, subsequent encounter
S67.191S	Crushing injury of left index finger, sequela
S67.192A	Crushing injury of right middle finger, initial encounter
S67.192D	Crushing injury of right middle finger, subsequent encounter
S67.192S	Crushing injury of right middle finger, sequela
S67.193A	Crushing injury of left middle finger, initial encounter
S67.193D	Crushing injury of left middle finger, subsequent encounter
S67.193S	Crushing injury of left middle finger, sequela
S67.194A	Crushing injury of right ring finger, initial encounter
S67.194D	Crushing injury of right ring finger, subsequent encounter
S67.194S	Crushing injury of right ring finger, sequela
S67.195A	Crushing injury of left ring finger, initial encounter
S67.195D	Crushing injury of left ring finger, subsequent encounter
S67.195S	Crushing injury of left ring finger, sequela
S67.196A	Crushing injury of right little finger, initial encounter
S67.196D	Crushing injury of right little finger, subsequent encounter
S67.196S	Crushing injury of right little finger, sequela
S67.197A	Crushing injury of left little finger, initial encounter
S67.197D	Crushing injury of left little finger, subsequent encounter
S67.197S	Crushing injury of left little finger, sequela
S67.198A	Crushing injury of other finger, initial encounter

## MEDICAL POLICY

<b>POLICY TITLE</b>	<b>HYPERBARIC OXYGEN PRESSURIZATION (HBO)</b>
<b>POLICY NUMBER</b>	<b>MP-2.070</b>

ICD-10-CM Diagnosis Code	Description
S67.198D	Crushing injury of other finger, subsequent encounter
S67.198S	Crushing injury of other finger, sequela
S67.21XA	Crushing injury of right hand, initial encounter
S67.21XD	Crushing injury of right hand, subsequent encounter
S67.21XS	Crushing injury of right hand, sequela
S67.22XA	Crushing injury of left hand, initial encounter
S67.22XD	Crushing injury of left hand, subsequent encounter
S67.22XS	Crushing injury of left hand, sequela
S67.31XA	Crushing injury of right wrist, initial encounter
S67.31XD	Crushing injury of right wrist, subsequent encounter
S67.31XS	Crushing injury of right wrist, sequela
S67.32XA	Crushing injury of left wrist, initial encounter
S67.32XD	Crushing injury of left wrist, subsequent encounter
S67.32XS	Crushing injury of left wrist, sequela
S67.41XA	Crushing injury of right wrist and hand, initial encounter
S67.41XD	Crushing injury of right wrist and hand, subsequent encounter
S67.41XS	Crushing injury of right wrist and hand, sequela
S67.42XA	Crushing injury of left wrist and hand, initial encounter
S67.42XD	Crushing injury of left wrist and hand, subsequent encounter
S67.42XS	Crushing injury of left wrist and hand, sequela
S77.01XA	Crushing injury of right hip, initial encounter
S77.01XD	Crushing injury of right hip, subsequent encounter
S77.01XS	Crushing injury of right hip, sequela
S77.02XA	Crushing injury of left hip, initial encounter
S77.02XD	Crushing injury of left hip, subsequent encounter
S77.02XS	Crushing injury of left hip, sequela
S77.11XA	Crushing injury of right thigh, initial encounter
S77.11XD	Crushing injury of right thigh, subsequent encounter
S77.11XS	Crushing injury of right thigh, sequela
S77.12XA	Crushing injury of left thigh, initial encounter
S77.12XD	Crushing injury of left thigh, subsequent encounter
S77.12XS	Crushing injury of left thigh, sequela
S77.21XA	Crushing injury of right hip with thigh, initial encounter
S77.21XD	Crushing injury of right hip with thigh, subsequent encounter
S77.21XS	Crushing injury of right hip with thigh, sequela

## MEDICAL POLICY

<b>POLICY TITLE</b>	<b>HYPERBARIC OXYGEN PRESSURIZATION (HBO)</b>
<b>POLICY NUMBER</b>	<b>MP-2.070</b>

ICD-10-CM Diagnosis Code	Description
S77.22XA	Crushing injury of left hip with thigh, initial encounter
S77.22XD	Crushing injury of left hip with thigh, subsequent encounter
S77.22XS	Crushing injury of left hip with thigh, sequela
S87.01XA	Crushing injury of right knee, initial encounter
S87.01XD	Crushing injury of right knee, subsequent encounter
S87.01XS	Crushing injury of right knee, sequela
S87.02XA	Crushing injury of left knee, initial encounter
S87.02XD	Crushing injury of left knee, subsequent encounter
S87.02XS	Crushing injury of left knee, sequela
S87.81XA	Crushing injury of right lower leg, initial encounter
S87.81XD	Crushing injury of right lower leg, subsequent encounter
S87.81XS	Crushing injury of right lower leg, sequela
S87.82XA	Crushing injury of left lower leg, initial encounter
S87.82XD	Crushing injury of left lower leg, subsequent encounter
S87.82XS	Crushing injury of left lower leg, sequela
S97.01XA	Crushing injury of right ankle, initial encounter
S97.01XD	Crushing injury of right ankle, subsequent encounter
S97.01XS	Crushing injury of right ankle, sequela
S97.02XA	Crushing injury of left ankle, initial encounter
S97.02XD	Crushing injury of left ankle, subsequent encounter
S97.02XS	Crushing injury of left ankle, sequela
S97.111A	Crushing injury of right great toe, initial encounter
S97.111D	Crushing injury of right great toe, subsequent encounter
S97.111S	Crushing injury of right great toe, sequela
S97.112A	Crushing injury of left great toe, initial encounter
S97.112D	Crushing injury of left great toe, subsequent encounter
S97.112S	Crushing injury of left great toe, sequela
S97.121A	Crushing injury of right lesser toe(s), initial encounter
S97.121D	Crushing injury of right lesser toe(s), subsequent encounter
S97.121S	Crushing injury of right lesser toe(s), sequela
S97.122A	Crushing injury of left lesser toe(s), initial encounter
S97.122D	Crushing injury of left lesser toe(s), subsequent encounter
S97.122S	Crushing injury of left lesser toe(s), sequela
S97.81XA	Crushing injury of right foot, initial encounter
S97.81XD	Crushing injury of right foot, subsequent encounter

## MEDICAL POLICY

<b>POLICY TITLE</b>	<b>HYPERBARIC OXYGEN PRESSURIZATION (HBO)</b>
<b>POLICY NUMBER</b>	<b>MP-2.070</b>

ICD-10-CM Diagnosis Code	Description
S97.81XS	Crushing injury of right foot, sequela
S97.82XA	Crushing injury of left foot, initial encounter
S97.82XD	Crushing injury of left foot, subsequent encounter
S97.82XS	Crushing injury of left foot, sequela
T20.20	Burn of second degree of head, face, and neck, unspecified site
T20.22	Burn of second degree of lip(s)
T20.23	Burn of second degree of chin
T20.24	Burn of second degree of nose (septum)
T20.26	Burn of second degree of forehead and cheek
T20.29	Burn of second degree of multiple sites of head, face, and neck
T20.30	Burn of third degree of head, face, and neck, unspecified site
T20.32	Burn of third degree of lip(s)
T20.33	Burn of third degree of chin
T20.34	Burn of third degree of nose (septum)
T20.36	Burn of third degree of forehead and cheek
T20.39	Burn of third degree of multiple sites of head, face, and neck
T20.62	Corrosion of second degree of lip(s)
T20.63	Corrosion of second degree of chin
T20.64	Corrosion of second degree of nose (septum)
T20.66	Corrosion of second degree of forehead and cheek
T20.69	Corrosion of second degree of multiple sites of head, face, and neck
T20.72	Corrosion of third degree of lip(s)
T20.73	Corrosion of third degree of chin
T20.74	Corrosion of third degree of nose (septum)
T20.76	Corrosion of third degree of forehead and cheek
T20.79	Corrosion of third degree of multiple sites of head, face, and neck
T21.26	Burn of second degree of male genital region
T21.27	Burn of second degree of female genital region
T21.36	Burn of third degree of male genital region
T21.37	Burn of third degree of female genital region
T21.66	Corrosion of second degree of male genital region
T21.67	Corrosion of second degree of female genital region
T21.76	Corrosion of third degree of male genital region
T21.77	Corrosion of third degree of female genital region
T23.201	Burn of second degree of right hand, unspecified site

## MEDICAL POLICY

<b>POLICY TITLE</b>	<b>HYPERBARIC OXYGEN PRESSURIZATION (HBO)</b>
<b>POLICY NUMBER</b>	<b>MP-2.070</b>

ICD-10-CM Diagnosis Code	Description
T23.202	Burn of second degree of left hand, unspecified site
T23.209	Burn of second degree of unspecified hand, unspecified site
T23.211	Burn of second degree of right thumb (nail)
T23.212	Burn of second degree of left thumb (nail)
T23.219	Burn of second degree of unspecified thumb (nail)
T23.221	Burn of second degree of single right finger (nail) except thumb
T23.222	Burn of second degree of single left finger (nail) except thumb
T23.229	Burn of second degree of unspecified single finger (nail) except thumb
T23.231	Burn of second degree of multiple right fingers (nail), not including thumb
T23.232	Burn of second degree of multiple left fingers (nail), not including thumb
T23.239	Burn of second degree of unspecified multiple fingers (nail), not including thumb
T23.241	Burn of second degree of multiple right fingers (nail), including thumb
T23.242	Burn of second degree of multiple left fingers (nail), including thumb
T23.249	Burn of second degree of unspecified multiple fingers (nail), including thumb
T23.251	Burn of second degree of right palm
T23.252	Burn of second degree of left palm
T23.259	Burn of second degree of unspecified palm
T23.261	Burn of second degree of back of right hand
T23.262	Burn of second degree of back of left hand
T23.269	Burn of second degree of back of unspecified hand
T23.291	Burn of second degree of multiple sites of right wrist and hand
T23.292	Burn of second degree of multiple sites of left wrist and hand
T23.299	Burn of second degree of multiple sites of unspecified wrist and hand
T23.301	Burn of third degree of right hand, unspecified site
T23.302	Burn of third degree of left hand, unspecified site
T23.309	Burn of third degree of unspecified hand, unspecified site
T23.311	Burn of third degree of right thumb (nail)
T23.312	Burn of third degree of left thumb (nail)
T23.319	Burn of third degree of unspecified thumb (nail)
T23.321	Burn of third degree of single right finger (nail) except thumb
T23.322	Burn of third degree of single left finger (nail) except thumb
T23.329	Burn of third degree of unspecified single finger (nail) except thumb
T23.331	Burn of third degree of multiple right fingers (nail), not including thumb
T23.332	Burn of third degree of multiple left fingers (nail), not including thumb
T23.339	Burn of third degree of unspecified multiple fingers (nail), not including thumb

## MEDICAL POLICY

<b>POLICY TITLE</b>	<b>HYPERBARIC OXYGEN PRESSURIZATION (HBO)</b>
<b>POLICY NUMBER</b>	<b>MP-2.070</b>

ICD-10-CM Diagnosis Code	Description
T23.341	Burn of third degree of multiple right fingers (nail), including thumb
T23.342	Burn of third degree of multiple left fingers (nail), including thumb
T23.349	Burn of third degree of unspecified multiple fingers (nail), including thumb
T23.351	Burn of third degree of right palm
T23.352	Burn of third degree of left palm
T23.359	Burn of third degree of unspecified palm
T23.361	Burn of third degree of back of right hand
T23.362	Burn of third degree of back of left hand
T23.369	Burn of third degree of back of unspecified hand
T23.391	Burn of third degree of multiple sites of right wrist and hand
T23.392	Burn of third degree of multiple sites of left wrist and hand
T23.399	Burn of third degree of multiple sites of unspecified wrist and hand
T23.601	Corrosion of second degree of right hand, unspecified site
T23.602	Corrosion of second degree of left hand, unspecified site
T23.609	Corrosion of second degree of unspecified hand, unspecified site
T23.611	Corrosion of second degree of right thumb (nail)
T23.612	Corrosion of second degree of left thumb (nail)
T23.619	Corrosion of second degree of unspecified thumb (nail)
T23.621	Corrosion of second degree of single right finger (nail) except thumb
T23.622	Corrosion of second degree of single left finger (nail) except thumb
T23.629	Corrosion of second degree of unspecified single finger (nail) except thumb
T23.631	Corrosion of second degree of multiple right fingers (nail), not including thumb
T23.632	Corrosion of second degree of multiple left fingers (nail), not including thumb
T23.639	Corrosion of second degree of unspecified multiple fingers (nail), not including thumb
T23.641	Corrosion of second degree of multiple right fingers (nail), including thumb
T23.642	Corrosion of second degree of multiple left fingers (nail), including thumb
T23.649	Corrosion of second degree of unspecified multiple fingers (nail), including thumb
T23.651	Corrosion of second degree of right palm
T23.652	Corrosion of second degree of left palm
T23.659	Corrosion of second degree of unspecified palm
T23.661	Corrosion of second degree back of right hand
T23.662	Corrosion of second degree back of left hand
T23.669	Corrosion of second degree back of unspecified hand
T23.691	Corrosion of second degree of multiple sites of right wrist and hand
T23.692	Corrosion of second degree of multiple sites of left wrist and hand



## MEDICAL POLICY

<b>POLICY TITLE</b>	<b>HYPERBARIC OXYGEN PRESSURIZATION (HBO)</b>
<b>POLICY NUMBER</b>	<b>MP-2.070</b>

ICD-10-CM Diagnosis Code	Description
T23.699	Corrosion of second degree of multiple sites of unspecified wrist and hand
T23.701	Corrosion of third degree of right hand, unspecified site
T23.702	Corrosion of third degree of left hand, unspecified site
T23.709	Corrosion of third degree of unspecified hand, unspecified site
T23.711	Corrosion of third degree of right thumb (nail)
T23.712	Corrosion of third degree of left thumb (nail)
T23.719	Corrosion of third degree of unspecified thumb (nail)
T23.721	Corrosion of third degree of single right finger (nail) except thumb
T23.722	Corrosion of third degree of single left finger (nail) except thumb
T23.729	Corrosion of third degree of unspecified single finger (nail) except thumb
T23.731	Corrosion of third degree of multiple right fingers (nail), not including thumb
T23.732	Corrosion of third degree of multiple left fingers (nail), not including thumb
T23.739	Corrosion of third degree of unspecified multiple fingers (nail), not including thumb
T23.741	Corrosion of third degree of multiple right fingers (nail), including thumb
T23.742	Corrosion of third degree of multiple left fingers (nail), including thumb
T23.749	Corrosion of third degree of unspecified multiple fingers (nail), including thumb
T23.751	Corrosion of third degree of right palm
T23.752	Corrosion of third degree of left palm
T23.759	Corrosion of third degree of unspecified palm
T23.761	Corrosion of third degree of back of right hand
T23.762	Corrosion of third degree of back of left hand
T23.769	Corrosion of third degree back of unspecified hand
T23.791	Corrosion of third degree of multiple sites of right wrist and hand
T23.792	Corrosion of third degree of multiple sites of left wrist and hand
T23.799	Corrosion of third degree of multiple sites of unspecified wrist and hand
T25.221	Burn of second degree of right foot
T25.222	Burn of second degree of left foot
T25.229	Burn of second degree of unspecified foot
T25.231	Burn of second degree of right toe(s) (nail)
T25.232	Burn of second degree of left toe(s) (nail)
T25.239	Burn of second degree of unspecified toe(s) (nail)
T25.291	Burn of second degree of multiple sites of right ankle and foot
T25.292	Burn of second degree of multiple sites of left ankle and foot
T25.299	Burn of second degree of multiple sites of unspecified ankle and foot
T25.321	Burn of third degree of right foot

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<b>POLICY TITLE</b>	<b>HYPERBARIC OXYGEN PRESSURIZATION (HBO)</b>
<b>POLICY NUMBER</b>	<b>MP-2.070</b>

ICD-10-CM Diagnosis Code	Description
T25.322	Burn of third degree of left foot
T25.329	Burn of third degree of unspecified foot
T25.331	Burn of third degree of right toe(s) (nail)
T25.332	Burn of third degree of left foot
T25.339	Burn of third degree of unspecified toe(s) (nail)
T25.391	Burn of third degree of multiple sites of ankle and foot
T25.392	Burn of third degree of multiple sites of left ankle and foot
T25.399	Burn of third degree of multiple sites of unspecified ankle and foot
T25.621	Corrosion of second degree of right foot
T25.622	Corrosion of second degree of left foot
T25.629	Corrosion of second degree of unspecified foot
T25.631	Corrosion of second degree of toe(s) (nail)
T25.632	Corrosion of second degree of left toe(s) (nail)
T25.639	Corrosion of second degree of unspecified toe(s) (nail)
T25.691	Corrosion of second degree of right ankle and foot
T25.692	Corrosion of second degree of left ankle and foot
T25.699	Corrosion of second degree of unspecified ankle and foot
T25.721	Corrosion of third degree of right foot
T25.722	Corrosion of third degree of left foot
T25.729	Corrosion of third degree of unspecified foot
T25.731	Corrosion of third degree of right toe(s) (nail)
T25.732	Corrosion of third degree of left toe(s) (nail)
T25.738	Corrosion of third degree of unspecified toe(s) (nail)
T25.791	Corrosion of third degree of multiple sites of right ankle and foot
T25.792	Corrosion of third degree of multiple sites of left ankle and foot
T25.799	Corrosion of third degree of multiple sites of unspecified ankle and foot
T31.20	Burns involving 20-29% of body surface with 0% to 9% third degree burns
T31.21	Burns involving 20-29% of body surface with 10-19% third degree burns
T31.22	Burns involving 20-29% of body surface with 20-29% third degree burns
T31.31	Burns involving 30-39% of body surface with 0% to 9% third degree burns
T31.32	Burns involving 30-39% of body surface with 20-29% third degree burns
T31.33	Burns involving 30-39% of body surface with 30-39% third degree burns
T31.40	Burns involving 40-49% of body surface with 0% to 9% third degree burns
T31.41	Burns involving 40-49% of body surface with 10-19% third degree burns
T31.42	Burns involving 40-49% of body surface with 20-29% third degree burns

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<b>POLICY TITLE</b>	<b>HYPERBARIC OXYGEN PRESSURIZATION (HBO)</b>
<b>POLICY NUMBER</b>	<b>MP-2.070</b>

ICD-10-CM Diagnosis Code	Description
T31.43	Burns involving 40-49% of body surface with 30-39% third degree burns
T31.44	Burns involving 40-49% of body surface with 40-49% third degree burns
T31.50	Burns involving 50-59% of body surface with 0% to 9% third degree burns
T31.51	Burns involving 50-59% of body surface with 10-19% third degree burns
T31.52	Burns involving 50-59% of body surface with 20-29% third degree burns
T31.53	Burns involving 50-59% of body surface with 30-39% third degree burns
T31.54	Burns involving 50-59% of body surface with 40-49% third degree burns
T31.55	Burns involving 50-59% of body surface with 50-59% third degree burns
T31.60	Burns involving 60-69% of body surface with 0% to 9% third degree burns
T31.61	Burns involving 60-69% of body surface with 10-19% third degree burns
T31.62	Burns involving 60-69% of body surface with 20-29% third degree burns
T31.63	Burns involving 60-69% of body surface with 30-39% third degree burns
T31.64	Burns involving 60-69% of body surface with 40-49% third degree burns
T31.65	Burns involving 60-69% of body surface with 50-59% third degree burns
T31.66	Burns involving 60-69% of body surface with 60-69% third degree burns
T31.70	Burns involving 70-79% of body surface with 0% to 9% third degree burns
T31.71	Burns involving 70-79% of body surface with 10-19% third degree burns
T31.72	Burns involving 70-79% of body surface with 20-29% third degree burns
T31.73	Burns involving 70-79% of body surface with 30-39% third degree burns
T31.74	Burns involving 70-79% of body surface with 40-49% third degree burns
T31.75	Burns involving 70-79% of body surface with 50-59% third degree burns
T31.76	Burns involving 70-79% of body surface with 60-69% third degree burns
T31.77	Burns involving 70-79% of body surface with 70-79% third degree burns
T31.80	Burns involving 80-89% of body surface with 0% to 9% third degree burns
T31.81	Burns involving 80-89% of body surface with 10-19% third degree burns
T31.82	Burns involving 80-89% of body surface with 20-29% third degree burns
T31.83	Burns involving 80-89% of body surface with 30-39% third degree burns
T31.84	Burns involving 80-89% of body surface with 40-49% third degree burns
T31.85	Burns involving 80-89% of body surface with 50-59% third degree burns
T31.86	Burns involving 80-89% of body surface with 60-69% third degree burns
T31.87	Burns involving 80-89% of body surface with 70-79% third degree burns
T31.88	Burns involving 80-89% of body surface with 80-89% third degree burns
T31.90	Burns involving 90% or more of body surface with 0% to 9% third degree burns
T31.91	Burns involving 90% or more of body surface with 10-19% third degree burns
T31.92	Burns involving 90% or more of body surface with 20-29% third degree burns

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<b>POLICY NUMBER</b>	<b>MP-2.070</b>

ICD-10-CM Diagnosis Code	Description
T31.93	Burns involving 90% or more of body surface with 30-39% third degree burns
T31.94	Burns involving 90% or more of body surface with 40-49% third degree burns
T31.95	Burns involving 90% or more of body surface with 50-59% third degree burns
T31.96	Burns involving 90% or more of body surface with 60-69% third degree burns
T31.97	Burns involving 90% or more of body surface with 70-79% third degree burns
T31.98	Burns involving 90% or more of body surface with 80-89% third degree burns
T31.99	Burns involving 90% or more of body surface with 90% or more third degree burns
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
T58.01XD	Toxic effect of carbon monoxide from motor vehicle exhaust, accidental (unintentional), subsequent encounter
T58.01XS	Toxic effect of carbon monoxide from motor vehicle exhaust, accidental (unintentional), sequela
T58.02XA	Toxic effect of carbon monoxide from motor vehicle exhaust, intentional self-harm, initial encounter
T58.02XD	Toxic effect of carbon monoxide from motor vehicle exhaust, intentional self-harm, subsequent encounter
T58.02XS	Toxic effect of carbon monoxide from motor vehicle exhaust, intentional self-harm, sequela
T58.03XA	Toxic effect of carbon monoxide from motor vehicle exhaust, assault, initial encounter
T58.03XD	Toxic effect of carbon monoxide from motor vehicle exhaust, assault, subsequent encounter
T58.03XS	Toxic effect of carbon monoxide from motor vehicle exhaust, assault, sequela
T58.04XA	Toxic effect of carbon monoxide from motor vehicle exhaust, undetermined, initial encounter
T58.04XD	Toxic effect of carbon monoxide from motor vehicle exhaust, undetermined, subsequent encounter
T58.04XS	Toxic effect of carbon monoxide from motor vehicle exhaust, undetermined, sequela
T58.11XA	Toxic effect of carbon monoxide from utility gas, accidental (unintentional), initial encounter
T58.11XD	Toxic effect of carbon monoxide from utility gas, accidental (unintentional), subsequent encounter
T58.11XS	Toxic effect of carbon monoxide from utility gas, accidental (unintentional), sequela

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<b>POLICY TITLE</b>	<b>HYPERBARIC OXYGEN PRESSURIZATION (HBO)</b>
<b>POLICY NUMBER</b>	<b>MP-2.070</b>

ICD-10-CM Diagnosis Code	Description
T58.12XA	Toxic effect of carbon monoxide from utility gas, intentional self-harm, initial encounter
T58.12XD	Toxic effect of carbon monoxide from utility gas, intentional self-harm, subsequent encounter
T58.12XS	Toxic effect of carbon monoxide from utility gas, intentional self-harm, sequela
T58.13XA	Toxic effect of carbon monoxide from utility gas, assault, initial encounter
T58.13XD	Toxic effect of carbon monoxide from utility gas, assault, subsequent encounter
T58.13XS	Toxic effect of carbon monoxide from utility gas, assault, sequela
T58.14XA	Toxic effect of carbon monoxide from utility gas, undetermined, initial encounter
T58.14XD	Toxic effect of carbon monoxide from utility gas, undetermined, subsequent encounter
T58.14XS	Toxic effect of carbon monoxide from utility gas, undetermined, sequela
T58.2X1A	Toxic effect of carbon monoxide from incomplete combustion of other domestic fuels, accidental (unintentional), initial encounter
T58.2X1D	Toxic effect of carbon monoxide from incomplete combustion of other domestic fuels, accidental (unintentional), subsequent encounter
T58.2X1S	Toxic effect of carbon monoxide from incomplete combustion of other domestic fuels, accidental (unintentional), sequela
T58.2X2A	Toxic effect of carbon monoxide from incomplete combustion of other domestic fuels, intentional self-harm, initial encounter
T58.2X2D	Toxic effect of carbon monoxide from incomplete combustion of other domestic fuels, intentional self-harm, subsequent encounter
T58.2X2S	Toxic effect of carbon monoxide from incomplete combustion of other domestic fuels, intentional self-harm, sequela
T58.2X3A	Toxic effect of carbon monoxide from incomplete combustion of other domestic fuels, assault, initial encounter
T58.2X3D	Toxic effect of carbon monoxide from incomplete combustion of other domestic fuels, assault, subsequent encounter
T58.2X3S	Toxic effect of carbon monoxide from incomplete combustion of other domestic fuels, assault, sequela
T58.2X4A	Toxic effect of carbon monoxide from incomplete combustion of other domestic fuels, undetermined, initial encounter
T58.2X4D	Toxic effect of carbon monoxide from incomplete combustion of other domestic fuels, undetermined, subsequent encounter
T58.2X4S	Toxic effect of carbon monoxide from incomplete combustion of other domestic fuels, undetermined, sequela
T58.8X1A	Toxic effect of carbon monoxide from other source, accidental (unintentional), initial encounter
T58.8X1D	Toxic effect of carbon monoxide from other source, accidental (unintentional), subsequent encounter

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<b>POLICY TITLE</b>	<b>HYPERBARIC OXYGEN PRESSURIZATION (HBO)</b>
<b>POLICY NUMBER</b>	<b>MP-2.070</b>

ICD-10-CM Diagnosis Code	Description
T58.8X1S	Toxic effect of carbon monoxide from other source, accidental (unintentional), sequela
T58.8X2A	Toxic effect of carbon monoxide from other source, intentional self-harm, initial encounter
T58.8X2D	Toxic effect of carbon monoxide from other source, intentional self-harm, subsequent encounter
T58.8X2S	Toxic effect of carbon monoxide from other source, intentional self-harm, sequela
T58.8X3A	Toxic effect of carbon monoxide from other source, assault, initial encounter
T58.8X3D	Toxic effect of carbon monoxide from other source, assault, subsequent encounter
T58.8X3S	Toxic effect of carbon monoxide from other source, assault, sequela
T58.8X4A	Toxic effect of carbon monoxide from other source, undetermined, initial encounter
T58.8X4D	Toxic effect of carbon monoxide from other source, undetermined, subsequent encounter
T58.8X4S	Toxic effect of carbon monoxide from other source, undetermined, sequela
T70.3XXA	Caisson disease [decompression sickness], initial encounter
T70.3XXD	Caisson disease [decompression sickness], subsequent encounter
T70.3XXS	Caisson disease [decompression sickness], sequela
T79.0XXA	Air embolism (traumatic), initial encounter
T79.A11A	Traumatic compartment syndrome of right upper extremity, initial encounter
T79.A11D	Traumatic compartment syndrome of right upper extremity, subsequent encounter
T79.A11S	Traumatic compartment syndrome of right upper extremity, sequela
T79.A12A	Traumatic compartment syndrome of left upper extremity, initial encounter
T79.A12D	Traumatic compartment syndrome of left upper extremity, subsequent encounter
T79.A12S	Traumatic compartment syndrome of left upper extremity, sequela
T79.A21A	Traumatic compartment syndrome of right lower extremity, initial encounter
T79.A21D	Traumatic compartment syndrome of right lower extremity, subsequent encounter
T79.A21S	Traumatic compartment syndrome of right lower extremity, sequela
T79.A22A	Traumatic compartment syndrome of left lower extremity, initial encounter
T79.A22D	Traumatic compartment syndrome of left lower extremity, subsequent encounter
T79.A22S	Traumatic compartment syndrome of left lower extremity, sequela
T79.A3XA	Traumatic compartment syndrome of abdomen, initial encounter
T79.A3XD	Traumatic compartment syndrome of abdomen, subsequent encounter
T79.A3XS	Traumatic compartment syndrome of abdomen, sequela
T79.A9XA	Traumatic compartment syndrome of other sites, initial encounter
T79.A9XD	Traumatic compartment syndrome of other sites, subsequent encounter
T79.A9XS	Traumatic compartment syndrome of other sites, sequela

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<b>POLICY TITLE</b>	<b>HYPERBARIC OXYGEN PRESSURIZATION (HBO)</b>
<b>POLICY NUMBER</b>	<b>MP-2.070</b>

ICD-10-CM Diagnosis Code	Description
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
T85.613D	Breakdown (mechanical) of artificial skin graft and decellularized allodermis, subsequent encounter
T85.613S	Breakdown (mechanical) of artificial skin graft and decellularized allodermis, sequela
T85.623A	Displacement of artificial skin graft and decellularized allodermis, initial encounter
T85.623D	Displacement of artificial skin graft and decellularized allodermis, subsequent encounter
T85.623S	Displacement of artificial skin graft and decellularized allodermis, sequela
T85.693A	Other mechanical complication of artificial skin graft and decellularized allodermis, initial encounter
T85.693D	Other mechanical complication of artificial skin graft and decellularized allodermis, subsequent encounter
T85.693S	Other mechanical complication of artificial skin graft and decellularized allodermis, sequela
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)

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**IX. POLICY HISTORY**

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<b>MP2.070</b>	<b>CAC 4/29/03</b>
	<b>CAC 10/26/04</b>
	<b>CAC 6/28/05</b>
	<b>CAC 3/28/06</b>
	<b>CAC 11/28/06</b>
	<b>CAC 1/30/07</b>
	<b>CAC 1/29/08</b> Consensus
	<b>CAC 5/27/08</b>
	<b>CAC 5/26/09</b>
	<b>CAC 9/28/10</b> Minor revision. Description and background revised, references updated. Two new investigational indications added for early treatment (beginning at completion of radiation therapy) to reduce side effects of radiation therapy and autism. Documentation requirement for peri-wound oxygen tension measurement for treatment of chronic peripheral vascular insufficiency of the lower extremity was removed. Appendix with the Undersea and Hyperbaric Medical Society’s 2008 Hyperbaric Oxygen Therapy Committee report on suggestions for utilization added to the policy.
	<b>CAC 2/28/12</b> Adopted BCBSA. Changed the following from medically necessary to investigational: Compromised skin grafts or flaps, necrotizing soft-tissue infections, acute arterial peripheral insufficiency, idiopathic sudden sensorineural hearing loss, refractory mycoses, mucormycosis, actinomycosis, candidobolus corantoa, tumor sensitization for cancer treatment (was considered medically necessary for head and neck cancers only). Added the following as investigational: acute surgical and traumatic wounds, idiopathic femoral neck necrosis, radiation-induced injury in the head and neck, chronic arm lymphedema. The following were considered investigational – now silent – Acute thermal and chemical pulmonary damage, aerobic septicemia, arthritic diseases, cardiogenic shock, hepatic necrosis, non-vascular causes of chronic brain syndrome, organ storage, organ transplantation, pulmonary emphysema, senility, superficial and/or non infected diabetic ulcers, non-diabetic cutaneous, decubitus, pressure and venous stasis ulcers, systemic aerobic infection, tetanus and other conditions not specifically listed in the policy. The following were considered medically necessary and now silent: chronic peripheral vascular insufficiency wounds of the lower extremities, vascular insufficiency wounds of the lower extremities, preparation and preservation of skin grafts in patients who had previous radiation. Deleted requirement for measurable signs of healing within 30 days

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	<p>of HBO. Changed Medicare variation reference from NCD to LCD L32018. Changed wording in Wagner Scale classification of wounds to match BCBSA.</p> <p><b>CAC 10/30/12</b> Minor. Partial BCBSA.</p> <ul style="list-style-type: none"> <li>• Bell's palsy added as investigational.</li> <li>• "Chronic wounds, other than those in patients with diabetes who meet the criteria specified in the medically necessary statement" added to investigational statement.</li> <li>• Changed compromised skin grafts or flaps from investigational to medically necessary.</li> <li>• Changed necrotizing soft-tissue infections from investigational to medically necessary.</li> <li>• Crush injuries, suturing of severed limbs, reperfusion injury, and compartment syndrome added as examples in bullet point on acute traumatic ischemia.</li> <li>• Deleted traumatic wounds from investigational list</li> <li>• Policy corrected with acute ischemic stroke added as investigational.</li> <li>• Updated Description/Background.</li> <li>• Codes reviewed 10/16/12</li> </ul>
	<b>01/03/2012-</b> Administrative code changes
	<b>CAC 1/28/14</b> Minor review. Bisphosphonate-related osteonecrosis of the jaw, motor dysfunction associated with stroke, herpes zoster and vascular dementia added as investigational. Added rationale section. Changed FEP variation to reference the policy manual. Coding reviewed
	<b>07/23/2014-</b> Additional dx code added to policy
	<b>CAC 1/27/15</b> Minor. Changed investigational indication for severe or refractory Crohn's disease to investigational for inflammatory bowel disease (Crohn's disease or ulcerative colitis). Added a statement indicating Topical continuous oxygen therapy (TCOT) is investigational. Coding reviewed.
	<b>11/2/15</b> Administrative change. LCD number changed from L32018 to L34979 due to Novitas update to ICD-10.
	<b>12/31/15</b> Administrative change. LCD number changed from L34979 to L35021 due to creation of Uniform LCDs With Other MAC Jurisdiction.
	<b>CAC 3/29/2016</b> Consensus review. Updated references and rationale. Also added fibromyalgia and mental illness (i.e., posttraumatic stress disorder, generalized anxiety disorder or depression) to the investigational statement. Coding updated.
	<b>Admin update 1/1/17:</b> Product variation section reformatted.
	<b>CAC 3/28/17</b> Consensus review. Policy Guidelines, Description/Background, Rationale and Reference sections updated. Coding reviewed.
	<b>1/1/18 Admin Update:</b> Medicare variations removed from Commercial Policies.
	<b>1/25/18 Consensus review.</b> No change to policy statements. Background, rationale and references updated. Coding Reviewed.

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	<b>1/18/19 Consensus review.</b> No change to policy statements. Background and references updated. Rationale condensed.
	<b>2/9/2020 Consensus review.</b> No change to policy statements. References updated.
	<b>2/2/2021 Minor review.</b> Added Arterial Insufficiency Ulcers, Central Retinal Artery Occlusion, & Idiopathic Sudden Sensorineural Hearing Loss as MN. Add dx codes for those indications. Updated Cross-References, Undersea & Hyperbaric Medical Society’s Indications from 13th to 14th edition, and Summary of Evidence. Updated references.
	<b>03/04/2022 Minor review.</b> Added actinomycosis, burns and intracranial abscess to list of medically necessary indications (as well as related ICD10 codes). Added “where there is recent trauma coupled with persistent ischemia to the traumatized tissue” to traumatic ischemia indication and frostbite as example. FEP language updated. Rationale updated. References added.
	<b>2/2/2023 Consensus review.</b> Updated policy guidelines, rationale, and references. No changes to coding.

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