

# Hyperbaric Oxygen

Policy Number: MP-084

Last Review Date: 02/21/2019

Effective Date: 04/01/2019

## Policy

Evolent Health considers **Hyperbaric Oxygen Therapy (HBOT)** medically necessary when it is administered in a chamber and is limited to the following conditions:

- Acute carbon monoxide intoxication - It is considered reasonable and medically necessary for patients with persistent neurological dysfunction to require subsequent treatment within six to eight hours, continuing once or twice daily until there is no further cognitive function improvement.
- Decompression illness
- Gas embolism
- Gas gangrene
- Exceptional blood loss anemia only when there is overwhelming blood loss and transfusion is impossible because there is no suitable blood available, or religion does not permit transfusions
- Diabetic wounds of the lower extremities in patients who meet the following three criteria:
  1. Patient has type I or type II diabetes and has a lower extremity wound that is due to diabetes
  2. Patient has a wound classified as Wagner grade III or higher and
  3. Patient has failed an adequate course of standard wound therapy, as defined in Section V.A. above (no measurable signs of healing for at least 30 days of treatment)
    - Therapy must be documented from initial treatment of the 30 day period.

**Note:** Wounds must be assessed at least every 30 days during treatment with HBOT. Records must demonstrate the involvement of a physician skilled in the management of systemic illness, particularly diabetes management, and particularly cardiovascular and neurovascular complications. If no measurable signs of healing have occurred within that 30 day period- then continued HBOT treatment is non-covered.

## Limitations

Coverage for HBOT is not available for conditions other than listed above, including any of the following:

- Cutaneous, decubitus and stasis ulcers
- Chronic peripheral vascular insufficiency
- Anaerobic septicemia and infection other than clostridial
- Skin burns (thermal)
- Senility
- Myocardial infarction
- Cardiogenic shock

## Hyperbaric Oxygen

Policy Number: MP-084  
Last Review Date: 02/21/2019  
Effective Date: 04/01/2019

- Sickle cell anemia
- Acute thermal and chemical pulmonary damage, i.e., smoke inhalation with pulmonary insufficiency
- Acute or chronic cerebral vascular insufficiency
- Hepatic necrosis
- Aerobic septicemia
- Pulmonary emphysema
- Exceptional blood loss anemia (except as outlined in the indications section)
- Multiple sclerosis
- Arthritic diseases
- Acute cerebral edema
- Pregnancy (except as primary treatment)

Coverage for the following procedures/methods of treatment is not available and will deny:

- Topical HBOT - This method of administering oxygen does not meet the definition of HBO therapy as stated above. Also, its clinical efficacy has not been established.
- Portable home hyperbaric chambers

**Note:** Practitioners who perform HBOT should obtain adequate training in the use of HBOT and be certified in Advanced Cardiac Life Support (ACLS) and must be immediately available to the patient throughout the HBOT.

When HBOT is performed in the non-hospital setting all of the following are applicable:

- Direct supervision is provided by a physician certified in Undersea and Hyperbaric Medicine by the American Board of Emergency Medicine (ABEM), the American Board of Preventive Medicine (ABPM) or the American Osteopathic Conjoint Committee of Underseas and Hyperbaric Medicine (AOCUHM); or who has successfully completed a minimum 40 hours of in-person accredited training program such as the one approved by the American College of Hyperbaric Medicine or the Underseas and Hyperbaric Medical Society and has supervised at least 300 HBOT treatments.
  1. In the office setting, "direct supervision" means the physician must be present in the office suite and immediately available to furnish assistance and direction throughout the performance of the procedure.
  2. In the hospital outpatient setting, "direct supervision" means the physician must be present and on the premises of the location and immediately available to furnish assistance and direction throughout the performance of the procedure.

## Hyperbaric Oxygen

Policy Number: MP-084  
 Last Review Date: 02/21/2019  
 Effective Date: 04/01/2019

- The supervising provider in a physician’s office, other non-hospital setting, or an off-campus hospital site must be ACLS trained and certified.
- In any on-campus provider-based department for which the supervising provider response time to the chamber may be expected to exceed five minutes, the personnel that are chamber side during HBOT must be ACLS trained and certified.
- In all locations – it is recommended that the physician be present during the ascent and descent portions of HBOT.
- Podiatric physicians may supervise HBOT if they meet the above listed qualifications and if the service is within their State’s scope of practice and if the body area or condition being treated by HBOT is also within the podiatric scope of practice.

### Background

The Agency for Healthcare Research and Quality (AHRQ) defines hyperbaric oxygen therapy (HBOT) as the inhalation of 100% oxygen inside a hyperbaric chamber that is pressurized to greater than 1 atmosphere (atm). The therapy induces a state of increased pressure and hyperoxia, thus increasing oxygen delivery to the tissues due to the elevated oxygen concentration by 10-15 times. A typical session duration of HBOT ranges from 90-120 minutes.

The FDA regulates hyperbaric oxygen chambers as Class II medical devices, including both monoplace and multiplace chambers. Monoplace chambers accommodate one person who lies prone and is the most common type of chamber. Multiplace chambers can accommodate several patients.

### Codes:

<b>CPT Codes / HCPCS Codes / ICD-10 Codes</b>	
Code	Description
<b>CPT Codes</b>	
99183	Physician attendance and supervision of hyperbaric oxygen therapy, per session
<b>HCPCS codes covered if selection criteria are met (If Appropriate):</b>	
G0277	Hyperbaric oxygen under pressure, full body chamber, per 30 minute interval
<b>ICD-10 codes covered if selection criteria are met:</b>	
A42.0-A42.9	Actinomycosis
A48.0	Gas gangrene

## Hyperbaric Oxygen

Policy Number: MP-084  
 Last Review Date: 02/21/2019  
 Effective Date: 04/01/2019

D50.8	Other iron deficiency anemias
D62	Acute posthemorrhagic anemia
E10.51-E10.59	Type 1 diabetes mellitus with circulatory complications
E11.51	Type 2 diabetes mellitus with diabetic peripheral angiopathy without gangrene
E11.6-E11.69	Type 2 diabetes mellitus with other specified complications
I70.25	Atherosclerosis of native arteries of other extremities with ulceration
I74.2	Embolism and thrombosis of arteries of the upper extremities
I74.3	Embolism and thrombosis of arteries of the lower extremities
I74.4	Embolism and thrombosis of arteries of extremities, unspecified
I74.5	Embolism and thrombosis of iliac artery
L08.1	Erythrasma
L59.9	Disorder of the skin and subcutaneous tissue related to radiation, unspecified
M27.2	Inflammatory conditions of jaw
M27.8	Other specified diseases of jaws
M72.6	Necrotizing fasciitis
M86.30-M86.69	Chronic osteomyelitis
S35.511A-S35.513S	Injury to iliac artery
S45.00-S45.099	Injury to axillary artery
S45.1-S45.199	Injury to brachial artery
S47-S47.9	Crushing injury of shoulder and upper arm
S57-S57.82	Crushing injury of elbow and forearm
S67-S67.92	Crushing injury of wrist, hand and fingers
S75.0-S75.099	Injury to femoral artery
S77-S77.22	Crushing injury of hip and thigh
S85.0-S85.099	Injury to popliteal artery
S87-S87.82	Crushing injury of lower leg
S97-S97.82	Crushing injury of ankle and foot
T57.3	Toxic effect of hydrogen cyanide

## Hyperbaric Oxygen

Policy Number: MP-084  
 Last Review Date: 02/21/2019  
 Effective Date: 04/01/2019

T58-T58.94	Toxic effect of carbon monoxide
T65.0	Toxic effect of cyanides
T66	Radiation sickness, unspecified
T70.2-T70.29	Other and unspecified effects of high altitude
T70.3	Caisson disease [decompression sickness]
T79.0	Air embolism
T79.A0XA-T79.A0XS	Compartment syndrome, unspecified
T79.A11A-T79.A19S	Traumatic compartment syndrome of upper extremity
T79.A21A-T79.A29S	Traumatic compartment syndrome of lower extremity
T79.A3XA-T79.A3XS	Traumatic compartment syndrome of abdomen
T79.A9XA-T79.A9XS	Traumatic compartment syndrome of other sites
T80.0	Air embolism following infusion, transfusion and therapeutic injection
T86.82-T86.829	Complications of skin graft (allograft) (autograft)
T87.0-T87.2	Complications of other reattached body part

### References

1. Adams Jr. CA, Deitch E: Diabetic foot infections. In: Surgical Treatment: Evidence-Based and Problem-Oriented. Holzheimer RG, Mannich JA (eds). Munich: Zuckschwerdt 2001. <http://www.ncbi.nlm.nih.gov/books/NBK6985/>
2. Centers for Medicare & Medicaid Services (CMS). Local Coverage Determination (LCD) No. L35021- Hyperbaric Oxygen (HBO) Therapy, Revision Effective Date: 10/19/2018. <https://www.cms.gov/medicare-coverage-database/details/lcd-details.aspx?LCDId=35021&ver=131&Date=01%2f14%2f2019&DocID=L35021&bc=iAAAABAAAA&>
3. Centers for Medicare & Medicaid Services (CMS). National Coverage Determination (NCD) No. 20.29 - Hyperbaric Oxygen Therapy. Revision Effective Date: 06/19/2006. <http://www.cms.gov/medicare-coverage-database/details/ncd-details.aspx?NCDId=12&ncdver=3&bc=AAAAGAAAAAAA%3d%3d&>
4. Department of Health and Human Services (HHS). Agency for Healthcare Research and Quality (AHRQ). Evidence Report/Technology Assessment. Number 85. Hyperbaric Oxygen Therapy for Brain Injury, Cerebral Palsy, and

## Hyperbaric Oxygen

Policy Number: MP-084

Last Review Date: 02/21/2019

Effective Date: 04/01/2019

Stroke. AHRQ Publication No. 03-E049, September 2003. Available at:  
<http://archive.ahrq.gov/downloads/pub/evidence/pdf/hypox/hyperox.pdf>

5. Hayes Medical Technology Directory. Hyperbaric Oxygen Therapy for Soft Tissue Radiation Injuries. Annual Review March 6, 2014. Archived June 05, 2015.
6. Hayes Medical Technology Directory. Hyperbaric Oxygen Therapy for Diabetic Food Wounds. Annual Review October 19, 2018.

### **Disclaimer:**

Evolent Health medical payment and prior authorization policies do not constitute medical advice and are not intended to govern or otherwise influence the practice of medicine. The policies constitute only the reimbursement and coverage guidelines of Evolent Health and its affiliated managed care entities. Coverage for services varies for individual members in accordance with the terms and conditions of applicable Certificates of Coverage, Summary Plan Descriptions, or contracts with governing regulatory agencies.

Evolent Health reserves the right to review and update the medical payment and prior authorization guidelines in its sole discretion. Notice of such changes, if necessary, shall be provided in accordance with the terms and conditions of provider agreements and any applicable laws or regulations.

These policies are the proprietary information of Evolent Health. Any sale, copying, or dissemination of said policies is prohibited.