

Hyperbaric Oxygen Therapy

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 [Instructions for Use](#)

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Related Medicare Advantage Policy Guideline

- [Hyperbaric Oxygen Therapy \(NCD 20.29\)](#)

Coverage Guidelines

Hyperbaric oxygen (HBO) therapy is covered when Medicare coverage criteria are met.

The following guidelines are based on the [NCD for Hyperbaric Oxygen Therapy \(20.29\)](#) (Accessed October 28, 2021)

Covered HBO Therapy

HBO therapy when administered in a chamber (including a one-man unit) is covered for all of the following conditions:

- Acute carbon monoxide intoxication
- Decompression illness
- Gas embolism
- Gas gangrene
- Acute traumatic peripheral ischemia HBO therapy is a valuable adjunctive treatment to be used in combination with accepted standard therapeutic measures when loss of function, limb, or life is threatened.
- Crush injuries and suturing of severed limbs. As in the previous conditions, HBO therapy would be an adjunctive treatment when loss of function, limb, or life is threatened.
- Progressive necrotizing infections (necrotizing fasciitis)
- Acute peripheral arterial insufficiency
- Preparation and preservation of compromised skin grafts (not for primary management of wounds)
- Chronic refractory osteomyelitis, unresponsive to conventional medical and surgical management
- Osteoradionecrosis as an adjunct to conventional treatment
- Soft tissue radio necrosis as an adjunct to conventional treatment
- Cyanide poisoning
- Actinomycosis (only as an adjunct to conventional therapy when the disease process is refractory to antibiotics and surgical treatment)
- 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 III or higher; and
 - Patient has failed an adequate course of standard wound therapy.

The use of HBO therapy is covered as adjunctive therapy only after there are no measurable signs of healing for at least 30 - days of treatment with standard wound therapy and must be used in addition to standard wound care. Standard wound care in patients with diabetic wounds includes: assessment of a patient's vascular status and correction of any vascular problems in

the affected limb if possible, optimization of nutritional status, optimization of glucose control, 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. Failure to respond to standard wound care occurs when there are no measurable signs of healing for at least 30 consecutive days. Wounds must be evaluated at least every 30 days during administration of HBO therapy. Continued treatment with HBO therapy is not covered if measurable signs of healing have not been demonstrated within any 30-day period of treatment.

Staging/grading of wounds in this policy is as follows and is a modified Wagner Cianci grading system (Wagner 1981, Cianci 1997):

Grade	Description of Wound
Grade 0	No open lesion; skin changes including erythema (reddening), whitening, mild exfoliation (scaling), or luminous variations (shining, glowing, or dullness in relation to surrounding skin)
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, or infection of the tendon and tendon sheaths
Grade 4	Wet or dry gangrene in the toes, forefoot, knee area, buttocks, elbow, or fingers
Grade 5	Gangrene involving the whole foot, or hand, or hind quarter such that no local procedures are possible and limb amputation or major hind quarter reconstruction is indicated

Non-Covered HBO Therapy

HBO therapy is not covered for the following conditions:

- Cutaneous, decubitus, and stasis ulcers
- Chronic peripheral vascular insufficiency
- Anaerobic septicemia and infection other than clostridial
- Skin burns (thermal)
- Senility
- Myocardial infarction
- Cardiogenic shock
- 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
- Nonvascular causes of chronic brain syndromes such as Pick's disease, Alzheimer's disease, and Korsakoff's disease)
- Tetanus
- Systemic aerobic infection
- Organ transplantation
- Organ storage
- Pulmonary emphysema
- Exceptional blood loss anemia
- Multiple Sclerosis
- Arthritic diseases
- Acute cerebral edema

Topical Application of Oxygen

This method of administering oxygen does not meet the definition of HBO therapy as stated above. Also, its clinical efficacy has not been established. Therefore, no Medicare reimbursement may be made for the topical application of oxygen.

Policy History/Revision Information

Date	Summary of Changes
11/16/2021	<p>Coverage Guidelines</p> <p><i>Covered Hyperbaric Oxygen (HBO) Therapy</i></p> <ul style="list-style-type: none"> Updated list of covered conditions for HBO therapy; replaced: <ul style="list-style-type: none"> “Acute traumatic peripheral ischemia <i>as an adjunctive treatment in combination with accepted standard therapeutic measures when loss of function, limb, or life is threatened</i>” with “acute traumatic peripheral ischemia; <i>HBO therapy is a valuable adjunctive treatment to be used in combination with accepted standard therapeutic measures when loss of function, limb, or life is threatened</i>” “Crush injuries and suturing of severed limbs <i>as an adjunctive treatment in combination with accepted standard therapeutic measures when loss of function, limb, or life is threatened</i>” with “crush injuries and suturing of severed limbs; <i>as in the previous conditions, HBO therapy would be an adjunctive treatment when loss of function, limb, or life is threatened</i>” <p>Other Conditions/Indications (removed)</p> <ul style="list-style-type: none"> Removed content/language addressing unspecified (non-covered) conditions/indications <p>Supporting Information</p> <ul style="list-style-type: none"> Archived previous policy version MCS047.01

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The benefit information in this Coverage Summary is based on existing national coverage policy; however, Local Coverage Determinations (LCDs) may exist and compliance with these policies are required where applicable.

There are instances where this document may direct readers to a UnitedHealthcare Commercial Medical Policy, Medical Benefit Drug Policy, and/or Coverage Determination Guideline (CDG). In the absence of a Medicare National Coverage Determination (NCD), Local Coverage Determination (LCD), or other Medicare coverage guidance, CMS allows a Medicare Advantage Organization (MAO) to create its own coverage determinations, using objective evidence-based rationale relying on authoritative evidence ([Medicare IOM Pub. No. 100-16, Ch. 4, §90.5](#)).

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