**The indications of HBOT in China**

Indications refer to the scope and standards for the suitable use of HBOT. A few countries other than China have developed their own standards for HBOT. In the United States, in 1989, the Undersea and Hyperbaric Medical Society (UHMS) formulated indications for HBOT use that include 13 diseases [[5](http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4341238/#CR5)]. In 2014, the number of indications increased to 17 (Table [1](http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4341238/table/Tab1/%22%20%5Ct%20%22true)). In 2004, the European Committee for Hyperbaric Medicine (ECHM) divided their recommended indications into 4 categories: 8 highly recommended indications, 10 recommended indications, 9 controversial indications,and 13 other indications that include 40 other diseases [[6](http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4341238/#CR6)]. Compared to the United States and Europe, the number of hyperbaric oxygen indications approved in China is relatively high. The indications of HBOT were initially released in China in 1982. With the practice and recognition of HBOT, the CMA revised the recommended indications in 2004 [[4](http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4341238/#CR4)] to include 12 emergency indications and 48 non-emergency indications.

**HBO Indications of UHMS**

Emergency indications are diseases where HBOT should be administered as soon as possible. The following are emergency indications: (1) acute carbon monoxide poisoning and other harmful gas poisoning; (2) gas gangrene, tetanus and other anaerobic bacteria infections; (3) decompression sickness; (4) air embolism syndrome; (5) after cardiopulmonary resuscitation (CPR) due to a variety of risks for acute brain dysfunction; (6) aid in the treatment of shock; (7) brain edema; (8) pulmonary edema (except cardiac pulmonary edema); (9) crush syndrome; (10) limb (finger, toe) and the blood supply after skin transplantation; (11) drug and chemical poisoning;(12) acute ischemia anoxic encephalopathy.

Additionally, the following non-emergency indications are approved for use: (1) carbon monoxide poisoning or other toxic encephalopathy; (2) sudden deafness; (3) ischemic cerebrovascular disease (cerebral arteriosclerosis, transient ischemic attack, cerebral thrombosis, cerebral infarction); (4) craniocerebral injury (concussion, cerebral contusion of intracranial hematoma removal surgery, brain stem injury); (5) cerebral hemorrhage recovery; (6) poor healing fractures; (7) central serous retinal inflammation; (8) vegetative state; (9) plateau adaptation insufficiency syndrome; (10) peripheral nerve injury; (11) intracranial benign tumor surgery; (12) periodontal disease; (13) viral encephalitis; (14) facial paralysis; (15) osteomyelitis; (16) aseptic osteonecrosis; (17) cerebral palsy; (18) fetal developmental delays; (19) diabetes and diabetic foot; (20) coronary atherosclerotic heart disease (angina and myocardial infarction); (21) rapidity arrhythmia (atrial fibrillation, premature beat, tachycardia); (22) myocarditis; (23) peripheral vascular disease, vasculitis, e.g., Raynaud’s, deep vein thrombosis, etc.; (24) vertigo; (25) chronic skin ulcer (arterial blood supply obstacles, venous congestion, bedsore); (26) spinal cord injury; (27) peptic ulcer; (28) ulcerative colitis; (29) infectious hepatitis (use the special chamber of infectious disease); (30) burns; (31) frostbite; (32) plastic surgery; (33) skin grafting; (34) sports injuries; (35) radioactive damage (bone and soft tissue, cystitis, etc.); (36) malignant tumors (with radiotherapy or chemotherapy); (37) otic nerve injury; (38) fatigue syndrome; (39) angioneurotic headache; (40) pustular; (41)psoriasis; (42) pityriasisrosea; (43) multiple sclerosis; (44) acute Guillain-Barre syndrome; (45) recurrent oral ulcer; (46) paralytic ileus; (47) bronchial asthma; and (48) acute respiratory distress syndrome.

The current HBOT indications and contraindications were released at the 22nd academic meeting held in Qingdao in 2013 and approved on the 1st of November 2013. The new indications include diseases that were directly or indirectly caused by hypoxia and/or ischemia or a series of conditions that are related to hypoxia and/or ischemia in the evolution of the disease process. In comparison to the 2004 edition, the new indications broaden the use of HBOT.