Chamber Orientation Dive Information

Medicals: A dive in the chamber creates the same conditions that make divers susceptible to air embolisms, decompression sickness, and nitrogen narcosis in an in-water dive. A current (within one year of the dive) diving physical is required for all participants who wish to dive in the chamber. A copy of a current Standard Diver Medical Exam (RSTC, NAUI, PADI, SSI, etc.), a letter from a physician stating the participant is fit to dive, or a completed Clearance for Hyperbaric Exposure (attached) is acceptable. If you are a member of a dive program (scientific, public safety, military, etc.) which has a diving medical requirement, then you may bring a letter from your Diving Supervisor stating you are medically cleared to dive in their program in lieu of the three previously stated options.

Anyone who arrives at the chamber without medical clearance will not be permitted to dive.

Waiver: All participants must read, complete, and sign the attached Chamber’s Waiver, Release and Indemnity Agreement prior to diving in the chamber and have it witnessed.

Diving Prior To and After the 165 fsw Dive: A dive in the chamber builds up nitrogen in the body just like a normal dive. The decompression protocol used for the dive assumes that the participants are clear of residual nitrogen. For this reason divers are asked not to dive 24 hours prior to the chamber dive.

Following the dive the participants will have a residual nitrogen load. Because of the depth of the dive, we assign a repetitive group of “Z” to the Chamber “divers”. Divers are asked not to dive for 24 hours following the chamber dive. Also, do not plan to travel to altitude for 24 hours following the chamber dives (aircraft, mountain passes, altitude chambers, etc.)

Clothing: Since the chamber environment has a higher concentration of oxygen molecules than air at sea level we have special requirements for the clothes worn in the chamber. Street shoes are not worn, and all clothing worn in the chamber should be no less than 80% (and preferably 100%) cotton (to prevent static electrical sparks).

During the descent, the air in the chamber gets quite hot (sometimes over 110°F) and during ascent it can get somewhat cold inside (~40°F). It is recommended that you dress with the ability to layer clothes (shorts and T-shirt for descent; sweatshirt and sweatpants to add on ascent; and thick cotton socks). Remember all clothes worn in the chamber should be as close to 100% cotton as possible.

Number of Divers: During decompression divers are placed on oxygen at 10 fsw. There are only nine oxygen masks available, so only eight divers (plus our tender) can dive in the chamber at a time. More than one dive will need to be run if your group has more than eight people who are diving.

Time Requirement: Plan to be at the chamber for at least two hours for a single dive. The dive itself will last about 45 minutes. The rest of the time is taken up by chamber setup, orientation, and collection of paperwork. If your group requires more than one dive, plan for another hour for each additional dive.

Dive Computers & Depth Gauges: Participants are welcome to take their depth gauges or dive computers along on the dive. Make sure any depth gauges, watches, or computers are rated to depths greater than 165 fsw. Dive computers should not be exposed to a high pressure air environment and will be placed in a water baths. If your dive computer has a high pressure hose quick disconnect, bring your whole regulator so we can pressurize the connection and prevent water from getting into the computer.

Cost: The cost of the dive to 165 fsw is $20 per person. If paying by check, the check should be made out to the Catalina Hyperbaric Chamber

The USC Catalina Hyperbaric Chamber is dedicated to diving safety and treatment of Southern California diving casualties and is part of USC, a non-profit 501(c)(3) organization, FIC 95-1642394, CGEC ONAF5

Chamber Web Site Address: http://dornsife.usc.edu/hyperbaric
Medical History

You must obtain medical clearance prior to participating in hyperbaric exposures, "dry dives," at the Catalina Hyperbaric Chamber. Complete the following history and take it to your "diving doctor." You must bring this form, or an equivalent recent DIVING medical approval, to the chamber with you.

Do you now have, or have you ever had (Check all that apply):

- Seizure disorder (except febrile in infancy)
- Recent sprain, fracture, or arthritis
- Recent cardiovascular or neurogenic syncope
- Meniere's disease
- Meniere's disease
- Obstructive pulmonary disease
- Pulmonary overexpansion accident
- Arterial gas embolism
- Pregnancy (currently)
- Asthma
- Claustrophobia
- Recent sprain, fracture, or arthritis
- Meniere's disease
- Thoracic surgery or penetrating chest wound
- Heart disease (myocardial infarction or arrhythmia)
- Pneumothorax (spontaneous, surgical, or traumatic)
- Decompression sickness with neurological deficit
- Blood disorder
  (Sickle cell anemia; chronic anemia; 2,3 DPG deficiency)

To the Physician

I am applying for the opportunity to participate in hyperbaric chamber (air) exposure dives to 60 feet of seawater (fsw) and/or 165 fsw. I understand that this activity will subject me to pressure in the middle ear and sinuses during pressurization and depressurization of the chamber and request medical clearance to participate in this activity.

Patient's signature: ________________________________

Examination: A recent inspiratory chest X-ray should be reviewed to rule out structural weakness and disease of the applicant's lungs and chest wall. Indications of medical history (above) or evidence (below) disqualify the applicant for dives in the Catalina Hyperbaric Chamber.

- Subplural bullae or blebs
- Pneumothorax
- Air-containing cysts
- Atelectasis
- Coin lesion
- Upper respiratory infection (middle ear and/or sinuses)
- Lower respiratory infection
- Inability to perform Valsalva (or any auto-inflate maneuver)
- Allergic

☐ I find that this individual is Cleared for Hyperbaric Exposure
☐ I am Unable to Recommend this individual for Hyperbaric Exposure

Date: ___________________________  Physician's Signature: ___________________________________________

Name (print): ___________________________  Telephone: ___________________________

Address: _______________________________________________________________________________

City: _______________________________  State: _______  Zip: ___________

Clearance for Hyperbaric Exposure
USC Catalina Hyperbaric Chamber
Waiver, Release, and Indemnity Agreement

The undersigned, ________________ ("Participant"), has applied for and voluntarily elected to participate in a hyperbaric chamber dive at the USC Catalina Hyperbaric Chamber, located at the University of Southern California – Wrigley Institute for Environmental Studies (the “Activity”). Participant understands that during the course of such Activity, he/she will be subjected to surrounding pressure several times greater than normal and will experience both compression and decompression. Participant understands that engaging in the Activity has inherent risks, including but not limited to the risks of decompression sickness and air embolism.

For and in consideration of the Participant being permitted to participate in the Activity, Participant, his/her spouse (if any), assignees, heirs, parents, guardians, and legal representatives hereby voluntarily indemnify, release from liability, agree to defend and hold harmless the University of Southern California ("USC") and its officers, trustees, employees, faculty, staff, students, agents, representatives, and any department, organization or group affiliated therewith (collectively “the USC Releasees”) for any accident, injury, illness, death, loss, damage to person or property, or other consequences suffered by Participant arising or resulting directly or indirectly from Participant's participation in the Activity, including but not limited to claims arising from or related to USC’s negligence, if any. In the event that Participant is injured, Participant agrees to assume any financial obligation, either through Participant’s health insurance, or through some other means, for any medical costs which Participant incurs. The USC Releasees assume no responsibility for any medical expenses, injury, or damage suffered by Participant in connection with the Activity.

IT IS THE INTENTION OF PARTICIPANT BY SIGNING BELOW TO EXPRESSLY ASSUME ALL RISK OF PERSONAL INJURY, DEATH, OR PROPERTY DAMAGE UPON HIMSELF, TO THE EXCLUSION OF THE USC RELEASEES, AND TO EXEMPT AND RELIEVE THE USC RELEASEES FROM LIABILITY FOR PERSONAL INJURY, PROPERTY DAMAGE OR WRONGFUL DEATH.

By signing this release, Participant waives his/her right to bring any legal action now or at any time in the future to recover compensation or obtain any other remedy for any injury to him/her or his/her property or for his/her death, however caused, arising out his/her participation in the Activity. Participant further agrees that Participant, his/her spouse (if any), assignees, heirs, parents, guardians, and legal representatives will not make any claim against, sue or attach the property of the USC Releasees for any loss or damage resulting from Participant’s participation in the Activity. Participant is aware of the potential dangers incidental to engaging in the Activity, that this is a release of liability, a waiver of the Participant’s legal right to collect damages in the event of injury, death or property damage, and a contract between Participant and the USC Releasees, and Participant signs it of his/her own free will.

Participant expressly agrees that this release is intended to be as broad and inclusive as the State of California will allow and that if any portion is held invalid, agrees that the balance shall, not withstanding, continue in full force and effect.

Participant’s Signature: ___________________________ Date: ______________________

Print Name of Participant: __________________________________________________________

Participant’s Student Identification Number: _____________________________________________

Signature of Parent/Guardian (If under the age of 18): ___________________________________

Print Name of Parent/Guardian (If under the age of 18): ___________________________________

Revised: 22 Feb 2007