

## APPENDIX Y

### BREATH-HOLDING AND LOSS OF CONSCIOUSNESS RETURN TO TRAINING POLICY

Amendments to this Appendix Y are the responsibility of the USAAS Board of Directors.

#### ARTICLE 1

##### 1.01 Breath-Holding Policy:

Artistic swimming has changed to a more acrobatic and artistic style with an emphasis on execution and less emphasis on breath-holding. Coaches should be aware of this phenomenon and prevent prolonged breath-holding practices. Hypoxia has been demonstrated in artistic swimming resulting in confusion in the past.

At this time, the emphasis in artistic swimming routines was on prolonged breath-holding. Available medical evidence strongly suggests that the combination of prolonged breath-holding (more than 45 seconds) and vigorous physical activity can have serious medical consequences. ‘Blackout’ underwater is clearly a serious and potentially lethal situation. Hyperventilation [over-breathing] prior to a competition is also known to increase the risk of a blackout and should be actively discouraged. The practice of hyperventilation lowers the levels of carbon dioxide in the bloodstream and abolishes an important trigger for normal breathing.

*The only instance that would be considered acceptable for breath-hold training which goes against the policy standards is where a trained/certified hypoxic training professional is working directly with the athlete and additional support (lifeguard) is present.*

- A. Athletes **always** have the right, and must be afforded the ability, to breathe.
- B. If a coach chooses to utilize underwater laps for training, they are to be restricted to a maximum length of 25 meters. Adequate time for the athlete to catch their breath is required. It is strongly recommended by [USA Artistic Swimming](#) that in place of underwater laps, coaches utilize alternate types of training that teach “breath control” rather than breath-holding.
- C. If a coach chooses to utilize underwater laps for training, the laps should not be executed when athletes are tired. It is strongly encouraged that any use of underwater lap training be executed in the first half of a practice.
- D. Always ensure that a lifeguard and coaches are present to observe athletes during these drills and that lifeguards are aware of these drills.
- E. If a coach chooses to utilize underwater laps for training, each athlete should have a set of eyes on that athlete only – a teammate above them, a lifeguard and/or a coach.
- F. Underwater laps should never be used as a punishment; this is a direct violation of the [U.S. Center for SafeSport Code](#). Coaches should **never** yell at or punish an athlete for coming up to breathe.
- G. No more than 45 seconds of breath-holding for any type of swimming including laps, routines, figures or elements.
- H. Athletes should be reminded to never ignore the urge to breathe, and educated on the dangers of over-exertion, because when over-exerted, they may not have the urge to breathe. Every athlete should be admonished to never train alone or without direct, “eyes on them”, supervision. (Note: We see a spike in incidences over holidays because athletes practice alone in hotel/vacation pools) <https://www.shallowwaterblackoutprevention.org/>
- I. Pay attention to the fact that unknown underlying health conditions CAN cause an underwater blackout, with the end result still the same: Extreme danger and possibility of death.

## ARTICLE 2

### **2.01 Loss of Consciousness Return to Pool Protocol for USA Artistic Swimming:**

- A. If an athlete experiences a loss of consciousness, whether on land or in the water, the athlete should be removed from further participation immediately. Appropriate emergency response should be taken to ensure that the athlete is able to breathe, has a pulse and therefore adequate circulation, and is in a safe area to allow for uninhibited recovery. Medical personnel should determine whether an athlete is safe to return home for recovery or needs to proceed to the emergency room by ambulance. When in doubt, it is best to seek immediate care at an emergency room.
- B. After such an event, an athlete should not return to practice until cleared by the team physician, or his/her primary care physician if the team does not have a physician. These physicians will conduct an evaluation. When loss of consciousness takes place in water, additional testing should be conducted by the physician. Upon completion of the evaluation(s), the physician must provide a clearance letter before the athlete can return to practice or competition. The letter should detail any modifications needed if full return is not recommended initially. If the athlete is to return gradually, then the recommended progression should be detailed.