

- Never hyperventilate (take multiple, deep breaths) prior to any hypoxic training or efforts or before any underwater swims.
- Structuring sessions to minimize involuntary hyperventilation immediately prior to a hypoxic set.
- Encouraging swimmers to breathe as needed and to stay within their comfort zone.
- Ensuring adequate rest for full recovery between hypoxic efforts. Recovery time will vary from swimmer to swimmer.
- Hypoxic training should not involve competitive efforts of maximum duration, or distance covered. Coaches and swimmers must not engage in breath holding games or challenges.

Underwater Drills

Common underwater activities that can lead to hypoxic blackout include repeated underwater swims or underwater kicking drills as well as stationary breath holding competitions for time. In all instances, the nature of the risk can be high. Even with successful resuscitation, complications including hypoxic brain damage and respiratory infection can occur.

The following considerations must be factored into hypoxic underwater training:

1. Coaches should be aware of the dangers and understand the risks of hypoxic training.
2. Swimmers should be instructed to surface and breathe when they feel it necessary when swimming underwater. Never resist the urge to breathe.
3. Stationary breath holding should never be used as a training method.
4. Only one deep breath should be allowed prior to submersion. Hypoxic blackout is closely linked to hyperventilation.
5. Underwater drills should be at the start of a workout when swimmers are not close to their maximum aerobic capacity (VO₂ max).
6. In general, the drill distance should not exceed 25 yards for a one time attempt. No immediate repeat attempts or challenges should be undertaken. More experienced, elite, athletes may attempt longer distances but should only do so under direct supervision of an experienced coach.
7. Allow adequate time for recovery, which will vary from swimmer to swimmer. Some guidelines suggest at least a two minute recovery time should be allowed before attempting another underwater swim, depending on age and experience.
8. No competitions or challenges; i.e. see who can swim the greatest distance underwater or hold their breath for the longest time will be conducted by coaches or swimmers.
9. There will be no pressure or penalties for swimmers who are unable to hold their breath as long as other swimmers.