

Understanding Alternobaric Vertigo



1.

The vestibular system plays a role in:

- ☐ A. Equalisation of the middle-ear air space
- ☐ B. Translating pressure changes into sound
- ☐ C. Balance and equilibrium
- ☐ D. Equalisation of the outer ear
- ☐ E. Coordinating hearing

None ☒

2.

Alternobaric vertigo (AV) is most commonly associated with a pressure change in what part of the body?

- ☐ A. Inner ear
- ☐ B. Middle ear
- ☐ C. Brain
- ☐ D. Eyes
- ☐ E. Semicircular canals

None ☒

3.

The ear is an interconnected system of air- and fluid-filled spaces. Normally there is a:

- ☐ A. Continual movement of gas between the inner ear and the back of the throat
- ☐ B. Continual exchange of gas between the middle ear and the back of the throat except during swallowing or yawning
- ☐ C. Periodic absorption of fluid in the middle ear, reducing middle-ear pressure
- ☐ D. Periodic fluid movement between the outer and middle ear
- ☐ E. Periodic gas movement into the middle ear such as during swallowing or yawning

None ☒

4.

Nystagmus, a condition often associated with alternobaric vertigo (AV), is defined as:

- ☐ A. A sensation that the body is spinning
- ☐ B. Involuntary rhythmic eye movement
- ☐ C. Vomiting brought on by severe nausea
- ☐ D. A panic response that can occur during an AV event

- ☐ E. Pain caused by excessive pressure on the tympanic membrane

None ☒

5.

Symptoms of alternobaric vertigo (AV) could be considered dangerous because:

- ☐ A. The diver could panic, prompting an uncontrolled ascent
- ☐ B. Severe symptoms may last for hours, making it difficult to surface safely
- ☐ C. Elevated middle-ear pressure also means more nitrogen is trapped, increasing the risk of middle-ear bends
- ☐ D. Panic could induce hyperventilation, leading to high carbon-dioxide blood concentration
- ☐ E. Perforation of the oval window associated with AV leads to debilitating vertigo

None ☒

6.

To reduce the likelihood of developing alternobaric vertigo (AV), a diver should use:

- ☐ A. Gentle and frequent active equalisation during descent
- ☐ B. Passive equalisation before descending
- ☐ C. Equalisation techniques once reaching maximum depth
- ☐ D. Ear plugs to help slow the equalisation of pressure in both ears

None ☒

7.

DAN Europe advises that divers who repeatedly experience alternobaric vertigo (AV) should:

- ☐ A. Take decongestants to make equalising easier
- ☐ B. Use ear plugs to decrease pressure in the outer ear
- ☐ C. Consider using nitrox to reduce damage to the middle ear caused by nitrogen in the breathing gas
- ☐ D. Be evaluated by a medical professional to rule out potentially serious conditions
- ☐ E. Dive no deeper than 9m to avoid excessive pressure changes

None ☒

8.

Alternobaric vertigo is typically characterized by which of the following symptoms:

- ☐ A. Rapid heart rate lasting several hours
- ☐ B. Severe nausea lasting 24 hours
- ☐ C. Loss of hearing in one or both ears lasting up to several minutes
- ☐ D. Shallow-water blackout
- ☐ E. Spinning sensation lasting a few seconds

None ☒

9.

The most effective way to handle an alternobaric vertigo (AV) event is to:

- ☐ A. Descend slowly, and maintain eye contact with a fixed visual reference until symptoms subside
- ☐ B. Ascend slowly to the surface until symptoms subside
- ☐ C. Maintain control, and remain at a fixed depth until symptoms subside
- ☐ D. Descend as quickly as possible, and make physical contact with fixed object until symptoms subside
- ☐ E. Equalise actively and frequently until symptoms subside

None ☒

10.

If a diver experiences ear pain while descending, the ideal response is to:

- ☐ A. Ascend to a depth at which ear pain subsides, then equalise gently while slowly descending
- ☐ B. Ascend slowly, exit the water, and take decongestants before reattempting the dive
- ☐ C. Continue the descend as slowly as possible, and swallow until the ears are equalised
- ☐ D. Find a depth at which the pain is not bothersome, and continue the dive, equalising frequently
- ☐ E. Stop descending, stabilise and continue to attempt equalisation until pain subsides

None ☒

11.

A diver with persistent difficulty equalising during a descent should:

- ☐ A. Continue the descent, ascending as frequently as necessary to relieve any ear pain
- ☐ B. End the dive, because difficulty descending could increase the chance of later complications
- ☐ C. Shorten the dive, because lengthy descent increases the chance of having alternobaric vertigo
- ☐ D. Slowly surface, completely equalise and reattempt the descent
- ☐ E. Stop descent, stabilise and wait for the Eustachian tube to allow passive equalisation to occur

None ☒

12.

Reverse block occurs when gas volume in the middle ear:

- ☐ A. Decreases during ascent and is unable to escape
- ☐ B. Increases during descent and is unable to enter
- ☐ C. Decreases during descent and is unable to enter
- ☐ D. Increases during ascent and is unable to escape
- ☐ E. Decreases during descent and is unable to escape

None ☒

13.

Symptoms of vertigo that persist for more than several minutes are most likely a sign of:

- ☐ A. Severe congestion that requires treatment with decongestants and antibiotics
- ☐ B. Nonrhythmic nystagmus associated with a significant increase in pressure in one ear
- ☐ C. Caloric stimulation brought on by a sudden temperature change in both ears
- ☐ D. Sudden and significant increase in pressure in one middle ear
- ☐ E. Inner ear-barotrauma

None ☒