

# DIVER STRESS & RESCUE

# 5-MINUTE NEURO-EXAM

NOTE: USING THIS CUE-CARD DOES NOT REPLACE THE NECESSARY TRAINING TO EFFECTIVELY PERFORM A NEUROLOGICAL EXAM.

**Perform the following steps and place a check in the box next to any area that has abnormal or questionable results.**

1. ☐ **ORIENTATION** - Does the diver know his/her own name and age? Does the diver know the present location? Does the diver know what time, day, year it is? Note: Even though a diver appears alert, the answers to these questions may reveal confusion. Do not omit them.
2. ☐ **EYES** - Have the diver count the number of fingers you display, using two or three different numbers. Check each eye separately and then together. Have the diver identify a distant object. Tell the diver to hold head still, or you gently hold it still, while placing your other hand about 18 inches/0.5 meters in front of the face. Ask the diver to follow your hand. Now move your hand up and down, then side to side. The diver's eyes should follow your hand and should not jerk to one side and return. Check that the pupils are equal in size.
3. ☐ **FACE** - Ask the diver to purse the lips. Look carefully to see that both sides of the face have the same expression. Ask the diver to grit the teeth. Feel the jaw muscles to confirm that they are contracted equally. Instruct the diver to close the eyes while you lightly touch your fingertips across the forehead and face to be sure sensation is present and the same everywhere.
4. ☐ **HEARING** - Hearing can be evaluated by holding your hand about 0.6 meters/2 feet from the diver's ear and rubbing your thumb and finger together. Check both ears moving your hand closer until the diver hears it. Check several times and compare with your own hearing. Note: If the surroundings are noisy, the test is difficult to evaluate. Ask bystanders to be quiet and to turn off unneeded machinery.
5. ☐ **SWALLOWING REFLEX** - Instruct the diver to swallow while you watch the "Adam's apple" to be sure it moves up and down.
6. ☐ **TONGUE** - Instruct the diver to stick out the tongue. It should come out straight in the middle of the mouth without deviating to either side.
7. ☐ **MUSCLE STRENGTH** - Instruct the diver to shrug shoulders while you bear down on them to observe for equal muscle strength. Check diver's arms by bringing the elbows up level with the shoulders, hands level with the arms and touching the chest. Instruct the diver to resist while

you pull the arms away, push them back, up and down. The strength should be approximately equal in both arms in each direction. Check leg strength by having the diver lie flat and raise and lower the legs while you resist the movement.

8. ☐ **SENSORY PERCEPTION** - Check on both sides by touching lightly as was done on the face. Start at the top of the body and compare sides while moving downwards to cover the entire body. Note: The diver's eyes should be closed during this procedure. The diver should confirm the sensation in each area before you move to another area.
9. ☐ **BALANCE & COORDINATION** - Note: Be prepared to protect the diver from injury when performing this test. 1. First, have the diver walk heel to toe along a straight line while looking straight ahead. 2. Have her walk both forward and backward for 10 feet or so. Note whether her movements are smooth and if she can maintain her balance without having to look down or hold onto something. 3. Next, have the diver stand up with feet together and close eyes and hold the arms straight out in front of her with the palms up. The diver should be able to maintain balance if the platform is stable. Your arms should be around, but not touching, the diver. Be prepared to catch the diver who starts to fall. 4. Check coordination by having the diver move an index finger back and forth rapidly between the diver's nose and your finger held approximately 18 inches/0.5 meters from the diver's face. The diver should be able to do this, even if you move your finger to different positions. 5. Have the diver lie down and instruct him to slide the heel of one foot down the shin of his other leg, while keeping his eyes closed. The diver should be able to move his foot smoothly along his shin, without jagged, side-to-side movements. 6. Check these tests on both right and left sides and observe carefully for unusual clumsiness on either side.

IMPORTANT NOTES	Tests 1,7, and 9 are the most important and should be given priority if not all tests can be performed. • The diver's condition may prevent the performance of one or more of these tests. Record any omitted test and the reason. If any of the tests are not normal, injury to the central nervous system should be suspected.
	• The tests should be repeated at 30- to 60-minute intervals while awaiting assistance in order to determine if any change occurs. Report the results to the emergency medical personnel responding to the call. • Good diving safety habits would include practicing this examination on normal divers to become proficient in the test. • Examination of an injured diver's central nervous system soon after an accident may provide valuable information to the physician responsible for treatment. • The On-Site Neuro Exam is easy to learn and can be done by individuals with no medical experience at all.

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**European Union Emergency Number 112**

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