

5 Minute Neurological Exam

Courtesy of Ed Thalmann, M.D., Assistant Medical Director of DAN

1. Orientation - Does the diver know name and age? Location? What time, day, or year it is? Note: Even though a diver appears alert, the answers to these questions may reveal confusion, so 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" in front of the face. Ask the diver to follow your hand with his eyes. Move your hand up, down, side to side. The divers eyes should smoothly follow your hand and should not jerk to one side and return. Check that pupils are equal in size. Note: Often AGE victims have different dilation in one eye then another. Also look for nystagmus (fluttering of the eyes either vertically or horizontally). This is a sign of neurological problems with the vertical fluttering being associated with more severe damage.
3. Face - Ask the diver to whistle. Look carefully to see that both sides of the face have the same expression while whistling. 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 - Can be evaluated by holding your hand about two 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 confirm with your own hearing. If the surroundings are noisy (i.e. a crowded beach), the test is difficult to evaluate. Ask bystanders to be quiet and turn off unneeded machinery.
5. Swallowing reflex - Instruct the diver to swallow while you watch the Adam's apple to be sure that 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 the shoulders while you bear down on them to observe for equal muscle strength. Check the 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 gently resist the movement.
8. Sensory Perception - Check on both sides by touching as done on the face. Start at the top of the body and compare sides while moving downwards to cover the entire body. 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 and coordination - Be prepared to protect the diver from injury when performing this test. Have the diver stand up with feet together, close eyes and stretch out arms. 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. Note: If the diver is already messed up you may want to avoid this one if he can't even stand. Check coordination by having the diver move an index finger back and forth rapidly between the divers nose and your finger held approximately 18" from the diver's face. Instruct the diver to slide the heel of one foot down the shin of the other leg. The diver should be lying down when attempting this test. Check these tests on both right and left sides and observe carefully for unusual clumsiness on either side.