

Neurological examination notes

MENTAL STATUS

- 1.) Ask the diver to state his name, where he is, the time of day, and most recent activity.
- 2.) Evaluate his speech for clearness and appropriateness.
- 3.) Serial sevens. Start with 100 and take 7 away, and again and again. Spell “world” backwards.
- 4.) Give the diver your name and ask them later if they remember it

CRANIAL NERVES

- 1.) Sight/Eye Movements:
 - a.) Hold up different numbers of fingers for the diver to count
 - b.) Have the diver follow your finger with his eyes while keeping his head straight Move your finger up, down, left and right Watch for nystagmus.
- 2.) Facial Movements:
 - c.) Place your fingers at the angle of the divers jaw and ask him to clench his teeth.
 - d.) Ask him to wrinkle his forehead as you smooth the skin.
 - e.) Instruct him to stick his tongue out and move it in all four directions.
 - f.) Check the diver's smile for symmetry.
- 5.) Head/Shoulder Movements:
 - a.) Ask the diver to tilt his head back and swallow. Watch for his “Adam's Apple” to move.
 - b.) Push down lightly on his shoulders, asking him to shrug.
 - c.) Put your hand on one side of the diver's face and ask him to push against it. Do the same with the other side, and on the forehead and back of the head.
- 6.) Hearing: Rub your fingers together close to the divers ears to identify the sound he's to listen for. Ask him to close his eyes. Move your hand away from his ear and make the sound again. Continue to make the sound as you move your hand back towards the ear. Ask him to tell you when he can hear the sound again.

MUSCLE TONE

- 1.) The objective is to evaluate muscle tone and determine that it's equal on both sides of the body.
- 2.) Hold arms out horizontally from the side check muscle power in shoulders by resisting movement in four directions – up, down, back and forward
- 3.) Check power at elbow – try to resist straightening and bending
- 4.) Have diver make a fist then try to resist bending and straightening
- 5.) To evaluate grip strength in each hand ask him to squeeze two of your fingers.
- 6.) Leg evaluation, diver sitting: Evaluate both legs. Put your hand on his thigh and ask him to pick the leg up against resistance. Then put your hand under the thigh and ask him to pull down. Put your hands on the front of his lower legs and ask him to push out. Then put your hands behind the legs and ask him to pull back.
- 7.) Leg evaluation, diver laying down: Evaluate both legs. Ask him to do a straight leg raise as you lightly push down on the leg. Have him bend the leg up and push against your hand as you hold his foot
- 8.) Foot evaluation: Have the diver pull his feet up as you push them down and then push against your hands as if pushing on a pedal

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SENSATIONS

- 1.) The objective is to evaluate the sense of light touch and make sure it's equal on both sides of the body.
- 2.) Sensations are checked with the diver's eyes closed, pockets empty, and the diver dressed down to light clothing or bare skin.
- 3.) Tell the diver that the light touch should feel normal and the same on both sides of his body.
- 4.) Evaluate the body in sections, checking the right and left sides at the same time. Overlap the sections slightly.
- 5.) Run your fingers across the forehead, down the sides of the face, and along the jaw line.
- 6.) Then run your fingers down the diver's chest, abdomen, front of arms, legs, and across the hands.
- 7.) Turn him around and run your fingers down his back, buttocks, and the back of the arms and legs.

BALANCE AND COORDINATION

- 1.) The objective is to make sure that the diver can hold himself upright, move without being off balance and that he has normal hand- eye coordination. Protect the diver from falling.
- 2.) Romberg Test: Have the diver stand upright with his eyes closed, feet together and arms outstretched in front of him. Ask him to stand this way for several seconds. Positive if falls to the side. Then ask him to walk in place, bringing his knees up. Eyes remain closed.
- 3.) Tandem Romberg (more taxing) – Stand one foot in front, in line, with the other and close eyes when stable. Positive if falls
- 4.) Heel toe walk – walk the straight line
- 5.) Heel-shin slide: If the diver is laying down, have him place the heel of one foot on the opposite leg, just below the knee. Then have him run the heel down his shin to the ankle. Do both legs.
- 6.) Alternating hand movements: Have the diver alternately touch his index finger to his nose and then to your finger, held about 18" (.5 meters) away from his face. Repeat the movement several times and test both hands.

VITAL SIGNS (if trained and equipped)

- 1.) The objective is to evaluate the findings in the rapid field neuro exam with the baseline vitals.
- 2.) Blood pressure.
- 3.) Pulse
- 4.) Respirations.