The 12 Cranial Nerves

Nerve #	Name	Function
1st	Olfactory	Relays smell
2nd	Optic	Transmits visual information
3rd	Oculomotor	External muscles of the eye
4th	Trochlear	Also supplies muscles of the eye
5th	Trigeminal	Chewing and sensation in the face
6th	Abducent	Controls lateral eye movement
7th	Facial	Muscles of facial expression, taste buds, sensation in fingers and toes, blinking
8th	Auditory	Hearing and balance
9th	Glossopharyngeal	Sensation, taste and swallowing
10th	Vagus	Organs in chest and abdomen
11th	Accessory	Supplies two neck muscles, the sternomastoid and trapezius
12th	Hypoglossal	Muscles of the tongue and neck

Remembering the 12 Cranial Nerves, from the MCC Paramedic Program

Presented by Diane Breton at the 1st Moebius Syndrome Conference in Los Angeles in 1994

Acronym	**Cranial Nerve**	**Roman Numeral**	**Motor Sensory Both**	**Function**
ON	**O**lfactory	I	**S**OME	Smell
OLD	**O**ptic	II	**S**AY	Vision (retinal)
OLYMPUS	**O**culomotor	III	**M**ARRY	Pupil constr/Eye mvmnt
TINY	**T**rochlear	IV	**M**ONEY	Eye mvmnt
TOPS	**T**rigeminal	V	**B**UT	Sensory face, mastication
A	**A**bducens	VI	**M**Y	Eye mvmnt
FIN	**F**acial	VII	**B**ROTHER	Face motor, taste ant. 2/3
AND	**A**uditory	VIII	**S**AYS	Hearing
GERMAN	**G**lossal-pharyngeal	IX	**B**AD	gag sense, swallowing
VIEWED	**V**agus	X	**B**USINESS	Parasympathetic, cough
SOME	**S**pinal accessary	XI	**M**ARRY	Shrug shoulders
HOPS	**H**ypopharyngeal	XII	**M**ONEY	Tongue protrusion

http://www.monroecc.edu/depts/pstc/paracnvs.htm

The 12 Cranial Nerves—Detail

Cranial Nerve 1 Sensory nerve- Olfactory Nerve -controls sense of smell

Cranial Nerve 2 Sensory nerve- Optic Nerve- controls vision by sending information from retina

Cranial Nerve 3 Motor nerve- Oculomotor Nerve-Controls most eye muscles. Works closely with Cranial Nerves 4 & 6. Controls eye movement, pupil dilation, and pupillary constriction. It also controls the muscles that elevate the upper eyelids.

Cranial Nerve 4 Motor nerve- Trochlear Nerve- Controls the downward and outward movement of the eye. Works closely with Cranial Nerves 3 & 6. Can cause vertical Diplopia (double vision). Weakness of downward gaze can cause difficulty in descending stairs.

Cranial Nerve 5 Motor and sensory nerve-Trigeminal Nerve-Carries sensory information from most of the head, neck, sinuses, and face. Also carries sensory information for ear and tympanic membrane. Provides motor supply to the muscles of masticulation (chewing), and to some of the muscles on the floor of the mouth. Also provides motor supply to tensor tympani (small muscle in the middle ear which tenses to protect the eardrum).

Cranial Nerve 6 Motor nerve-Abducens Nerve- Controls the outward movement of the eye

Cranial Nerve 7 Sensory and motor nerve-Facial Nerve- Supplies the muscles of facial expression. Supplies posterior belly of digastric muscle (small muscle on underside of jaw). Supplies Stylohyoid muscle (used in swallowing). Supplies stapedius muscle (middle ear). Controls taste sensations from the anterior 2/3 of the tongue.

Cranial Nerve 8 Sensory nerve- Vestibulocochlear Nerve- controls hearing and balance. Vestibular nerve receives positional information. Cochlear nerve transmits

I nformation on sound to the brain.

Cranial Nerve 9 Sensory and motor nerve-Glossopharyneal Nerve- controls some muscles used in swallowing including movement and sensation of throat, nasal passages and tongue. Controls taste from the posterior one third of tongue.

Cranial Nerve 10 Sensory and motor nerve- Vagus Nerve- controls muscles of the pharynx and larynx. Processes sensory information from external ear, pharynx, larynx and viscera. Serves the throat, nasal passages, heart lungs and stomach.

Cranial Nerve 11 Motor nerve-Spinal/Accessory-controls muscles used in head and shoulder movement

Cranial Nerve 12 Motor nerve-Hypoglossal Nerve-controls muscles of the tongue. Can cause speech problems, ipsilateral (single sided) movement of the tongue and thick speech.

Compiled by Jennifer Garbuzinski