Disorders of The Nervous System:

Most neural disorders are a result of either...

1. too much / too little of a neurotransmitter at the synapses between neurons
2. immune system attacks on the neurons themselves (MS)
3. inability to control how much of a neurotransmitter is released
4. maybe because too much of a neurotransmitter is being broken apart by enzymes

Presynaptic ➔ SYNAPSE ➔ Postsynaptic Neuron

Multiple Sclerosis (MS)....
- inflamed / damaged myelin sheathing, your own immune system attacks your neurons
- interferes with impulses
- symptoms.... blurred vision, slurred speech, tingling / numbness, poor coordination, weak muscles
- attacks may be mingled with remission
- progressive, no cure
- treatment involves control of immune response
Alzheimer’s disease...

- brain deterioration caused by protein deposits (amyloid plaque) on the brain that interrupts impulses. Causes memory loss, confusion, loss of acetylcholine...death.
- treatment is increasing acetylcholine by inhibiting cholinesterase, only temporary

http://www.youtube.com/watch?v=9Wv9jrk-gXc

Parkinson’s disease...

- dopamine loss, so body movement is lost (tremors, stiffness, walking is impaired)...no cure
- treat with dopamine, brain surgery (overactive parts slowed by electrodes)

http://www.youtube.com/watch?v=1yCgLytHe00
http://www.youtube.com/watch?v=pOhBtTfSE4

Meningitis...

- infection of the CNS meninges
- flu like symptoms....fever, headaches, STIFF NECK, light sensitivity, vomiting, sleepiness
- viral form more common, clears after a week or so
- bacterial meningitis is fatal quickly, 10% with fast treatment
- diagnosis....spinal tap to check for bacteria
- proactive measures : wash hands, vaccines
Huntington’s disease...
- genetically based brain degeneration
- loss of muscle control, emotions, mental ability, dementia, clumsiness, twitching.....fatal
- genetic screening to detect early, no treatment or cure