The medial longitudinal fasciculus is present throughout the entire extent of:

A) the midbrain only  
B) the pons only  
C) the pons and medulla only  
D) the brain stem only  
E) the brain stem (and spinal cord)
The neurons indicated by the blue dots:

A) release acetylcholine.
B) communicate with the spinal cord, not the forebrain.
C) lie in the tegmentum of the former myelencephalon.
D) fire more action potentials as attention levels rise.
E) are upper motor neurons.
Ischemia in a branch of a vertebral artery injures this brain stem region.

One problem likely to result is:
A) sixth nerve palsy.
B) lateral strabismus.
C) spasticity on the body’s right side.
D) weakness of the right genioglossus.
E) tongue protrudes to the left side.
A person with multiple sclerosis suffers damage the MLF on the left side of the brain stem. The damage is present in the midbrain just caudal to the level of the oculomotor nuclei.

What happens when the person attempts to look voluntarily to their right side?

A) medial strabismus in the left eye
B) absent accommodation reflex
C) left eye does not look toward the right side
D) paresis of medial rectus for left eye
E) mydriasis of pupil in left eye