In the nervous system, efferent nerves, otherwise known as motor or effector neurons, carry nerve impulses away from the central nervous system to effectors such as muscles or glands (and also the ciliated cells of the inner ear). The term can also be used to describe relative connections between nervous structures (for example, a neuron's efferent synapse provides input to another neuron, and not vice-versa). The opposite activity of direction or flow is afferent.

The motor nerves are efferent nerves involved in muscular control. The cell body of the efferent neuron is connected to a single, long axon and several shorter dendrites projecting out of the cell body itself. This axon then forms a neuromuscular junction with the effectors. The cell body of the motor neuron is satellite-shaped. The motor neuron is present in the grey matter of the spinal cord and medulla oblongata, and forms an electrochemical pathway to the effector organ or muscle. Besides motor nerves, there are efferent sensory nerves that often serve to adjust the sensitivity of the signal relayed by the afferent sensory nerve.