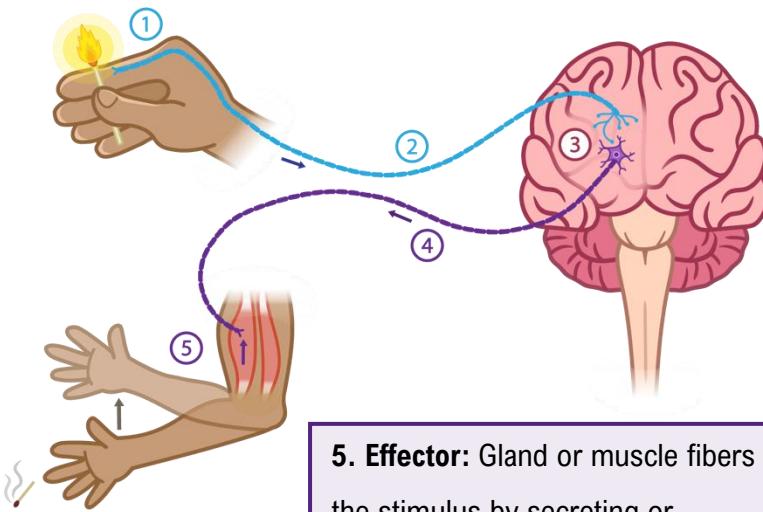


TOPIC: INTRODUCTION TO REFLEX ARCS

- **Reflex:** Rapid, _____ response to a stimulus.
- *Recall* - **Interneuron:** Transmits impulses between motor and sensory neurons.
- **Reflex Arc:** Neuronal pathway that controls a reflex action. Has _____ steps:

1. Receptor: A sensory receptor
_____ a stimulus.

2. Sensory Neuron: Transmits impulses from
receptor to the _____ nervous system.



3. Integration Center: Consists of inter _____
(or a single synapse) between sensory & motor
neurons.

4. Motor Neuron: Conducts impulses from the
integration center to the _____.

5. Effector: Gland or muscle fibers that responds to
the stimulus by secreting or _____.

EXAMPLE: Which of the following is the first step in a reflex arc?

- a) Motor neuron activation.
- b) Integration.
- c) Stimulus detection.
- d) Effector response.

PRACTICE: Which stage of a reflex arc would be significantly different in a reflex that is initiated by the brain compared to a reflex that is initiated by the spinal cord?

- a) Stage 1- Receptor.
- b) Stage 2- Sensory neuron.
- c) Stage 3- Integration center.
- d) Stage 4- Motor Neuron.
- e) Stage 5- Effector.

TOPIC: INTRODUCTION TO REFLEX ARCS

Types of Reflex Arcs

- There are multiple criteria that can be used to classify a reflex. Here are some that you should know:

1. Development:

- Innate reflex: genetically programmed during natural _____.
- Acquired reflex: complex, _____ motor patterns.

2. Response Type:

- Somatic reflex: rapid, involuntary _____ response to a stimulus.
- Autonomic (visceral) reflex: non-skeletal response carried out in _____ organs.

3. Complexity:

- Monosynaptic reflex: a _____ synapse during integration.
- Polysynaptic reflex: _____ synapses during integration.

	Knee-Jerk Reflex	Babinski Reflex	Conditioned Taste Aversion
			
Development			
Response Type			
Complexity	_____ synaptic	_____ synaptic	_____ synaptic

EXAMPLE: How would you classify the pupillary light reflex, which causes your pupils to constrict when the eye is exposed to bright light?

- Somatic, innate, polysynaptic.
- Autonomic, innate, polysynaptic.
- Somatic, acquired, monosynaptic.
- Autonomic, acquired, monosynaptic.