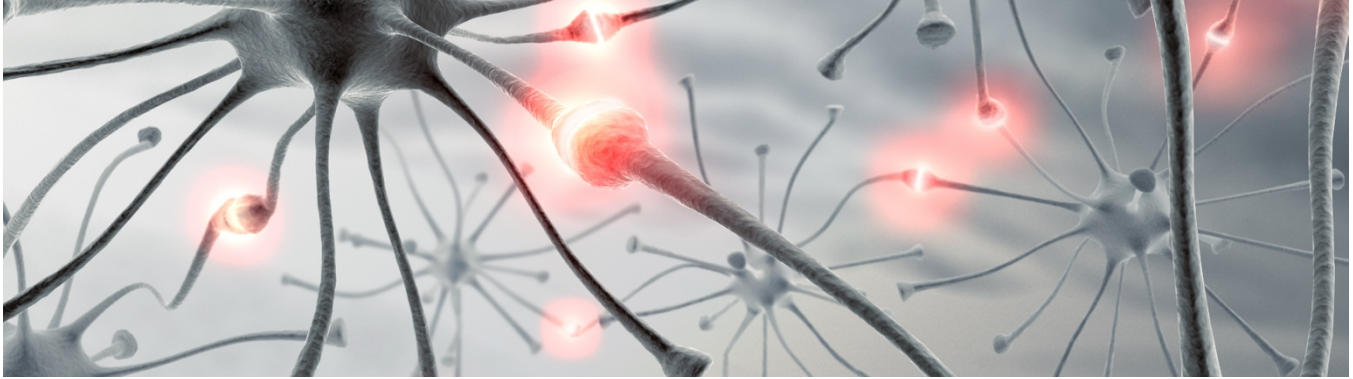


## THE REMARKABLE NERVOUS SYSTEM AND ITS FUNCTIONS



Our nervous system is one of the most delicate and sophisticated creations with remarkable potential for learning and transformation. It receives information from the inside and outside of our bodies, processes it, and acts on it by moving the body and regulating the function of our organs, glands, and tissues. Our sensory perceptions also form our *cognition*, which includes learning, memory, perception, decision-making, emotions, and all other forms of information processing. We act in response to the sensory stimuli, either reflexively or intentionally. Out of all potential scenarios, we choose to react or act in a certain way, depending on how our nervous system interprets the signals we receive. This interpretation of our sensory stimuli can be accurate, inaccurate, or ambiguous and can put us either in a state of ease (*sukha*) or a state of unease (*duhkha*).

On the most fundamental level, our brains are primarily concerned with survival. To accomplish this task, the brain needs to:

1. Monitor what your body needs, like food, rest, safety, sex, and shelter
2. Figure out where in the world you can satisfy those needs
3. Generate the necessary energy and drive to get you there
4. Warn you of the dangers and opportunities along the way
5. Modify plans and actions according to circumstances

In addition, since we have better chances of survival as a group, we need to be able to coordinate and collaborate with one another. All these tasks are accomplished by our nervous system.

All sorts of physical, physiological, and psychological issues can occur if we

1. Miss or misinterpret the inner signals about our needs
2. Cannot find a way to satisfy those needs
3. Don't have enough energy and resources to proceed
4. Get stuck in the chronic state of high alert
5. Become too rigid to adapt to changing circumstances
6. Fail to form or keep lasting relationships

Much of the physical, physiological, and mental suffering is caused by the nervous system gone awry. Our life experiences, particularly chronic pain and trauma, alter our nervous system and change our perception of the outside world. We can get stuck in a state of constant alert from chronic stress, feel pain when the actual tissue damage has long healed, or relive trauma over and over as if it's still happening; these are just some examples of the alterations of the nervous system that lead to mental and physical suffering.

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