

Arousal



One of the most basic functions of the brain is to control arousal. Arousal refers to a person's level of wakefulness.

At the lowest levels of arousal, there is little or no response to stimulation. For example, if the person is pinched on the cheek, he/she may not move or even grimace to the pain.

The more aroused person may say "Ouch!" and move his/her face away when pinched. The amount of arousal depends on the type, location and severity of a person's brain injury. Arousal levels may change during the course of the day (more awake in the morning and more tired in the afternoon) and over the course of recovery. There are varying degrees of arousal. Some people appear very sleepy while others are nearly completely awake.

It is important to realize that decreased arousal does not mean a person is sleepy.

Doctors may suggest medications to help improve arousal. The type and amount of medicine will vary depending on the person's specific needs. One class of medicine is called a Neuro-stimulant. These medicines have typically been used to treat children with hyperactivity; however, because they also affect poor attention, distraction, disorganization, impulsive behavior, fatigue and apathy, they are often given to persons with brain injury.

These medicines work because they increase the levels of a chemical in the brain called dopamine. Dopamine is thought to improve levels of arousal and cognition. Common brand names include Ritalin, Provigil and Cylert.

Other medicines that work to increase the dopamine levels in the brain are called dopaminergic agonists. This class of medicine is often given to persons in coma or who have low levels of responsiveness, in an effort to shorten the coma and improve functioning. Common names include: Parlodel and Amantadine.

When a person is in decreased levels of consciousness, they do not respond to all the sensations that are perceived by someone who is fully alert. Therapists working with the person will educate you on how to regulate the environment to gradually introduce different sensory inputs to help with increasing alertness. For example, playing one's favorite music if the person is fully rested may show changes in arousal. Allowing for plenty of quiet time and rest and then adding only one sensory input at a time so as not to lose the effect.