

Download Bio Sensory And Motor Mechanisms Guide

Biofeedback is the process of gaining greater awareness of many physiological functions primarily using instruments that provide information on the activity of those same systems, with a goal of being able to manipulate them at will. Some of the processes that can be controlled include brainwaves, muscle tone, skin conductance, heart rate and pain perception. Neuroprosthetics is an area of neuroscience concerned with neural prostheses, that is, using artificial devices to replace the function of impaired nervous systems and brain related problems, or of sensory organs. The most widely used neuroprosthetic device is the cochlear implant which, as of December 2010, had been implanted in approximately 220,000 people worldwide. Sensory nerves are innervated in peripheral tissues, including skin, joint, respiratory, and gastrointestinal tissues, to sense stimuli inside or outside the body, such as pain, temperature, odors ... The vagus nerve is the primary means of neural communication between the gastrointestinal (GI) tract and the brain. Vagally mediated GI signals activate the hippocampus (HPC), a brain region ...