

# 신경기술(neurotechnology)의 발달과 신경계 질환의 치료 변화: 뇌-컴퓨터 인터페이스 및 훈련 도구 중심으로



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## The brain-computer interface and intelligent training devices: Applying neurotechnology for the management of neurological disorders

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The term, neurotechnology is defined as any technology that are designed to improve and repair brain functions. It also includes technologies that have a significant impact on how people understand the brain and numerous brain functions including consciousness, movements, and cognition. Nowadays, advances in the field of neurotechnology may allow us to try new technical devices for the enhancement and rehabilitation of patients who have suffered from a variety of neurological disorders such as Alzheimer's disease, Parkinson's disease, stroke, epilepsy, spinal cord injury, amyotrophic lateral sclerosis, and traumatic brain injury. In addition, the application of neurotechnology has been extended into the field of early diagnosis and prevention of neurological disorders with the advancement of information and communication technology. This presentation will introduce the following 5 innovative neurotechnologies which are likely to go mainstream over the next few years: 1) Big data-enhanced diagnostics and treatments; 2) Brain-Computer Interfaces; 3) Cognitive training devices; 4) Virtual reality treatments; and 5) Electrical and magnetic brain stimulation.

**Key Words:** Interface, Cognitive training devices

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