



# Addiction to Smartphones and the Internet May Pose Risk to Teens' Mental Health

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More than half of American teenagers have access to a smartphone. But those who become addicted to these mobile devices or the internet are more likely to suffer from depression and anxiety, suggest new findings presented at the annual meeting of the Radiological Society of North America, reports [Medical News Today](#).

For the study, researchers from Korea University in Seoul, South Korea, used standardized examinations to evaluate 19 adolescents (nine males and 10 females with an average age of 15.5) who were diagnosed with smartphone or internet addiction. (The tests assessed the severity of their dependency by assessing how these technologies affected the teens' performance of daily activities, productivity, social life, sleep and mental health.) Twelve teens also received cognitive behavioral therapy (CBT) for nine weeks.

Next, scientists compared these youngsters according to biological gender and age with 19 other individuals who weren't addicted to smartphones or the internet.

Findings showed that participants with a more severe internet and smartphone addiction were more prone to depression, anxiety, sleeplessness and impulsive behavior. In addition, researchers noted a chemical imbalance in the brains of addicted participants when compared with those who weren't dependent on these technological tools. What's more, scientists noticed that after addicted teens received CBT, the chemical balances in their brains were largely restored.

Hyung Suk Seo, MD, a professor of neuroradiology at Korea University and leader of the research team, theorized that certain chemicals in the brain are significantly linked to the severity of smartphone and internet addiction, as well as the onset of anxiety and depression. Additionally, in youths with these addictions, levels of specific individual chemicals could be associated with damage to cognitive and emotional processes in the brain.

Experts suggest that parents adopt healthier relationships with technology as a way to set a better example for younger users.

[Click here](#) to learn how excessive texting might be harmful to young people's physical and mental

health.

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