

# Internet addiction disorder characterized by abnormal white matter integrity

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Internet addiction disorder may be associated with abnormal white matter structure in the brain, as reported in the Jan. 11 issue of the online journal *PLoS ONE*. These structural features may be linked to behavioral impairments, and may also provide a method to study and treat the disorder.

Previous studies of internet addiction disorder (IAD), which is characterized by an individual's inability to control his or her Internet use, have mostly focused on psychological questionnaires. The current study, on the other hand, uses an MRI technique to investigate specific features of the brain in 18 adolescents suffering from IAD.

The researchers, led by Hao Lei of the Chinese Academy of Sciences in Wuhan, found that IAD is characterized by impairment of white matter fibers connecting [brain regions](#) involved in emotional generation and processing, executive attention, decision making, and cognitive control, and suggest that IAD may share psychological and [neural mechanisms](#) with other types of impulse control disorders and substance addiction.

**More information:** Lin F, Zhou Y, Du Y, Qin L, Zhao Z, et al. (2012) Abnormal White Matter Integrity in Adolescents with Internet Addiction Disorder: A Tract-Based Spatial Statistics Study. *PLoS ONE* 7(1): e30253. [doi:10.1371/journal.pone.0030253](https://doi.org/10.1371/journal.pone.0030253)

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