

# Continuum of Gaming

## Positive Impacts

Although this toolkit focuses on the problematic use of digital technology, most patterns of gaming are not cause for concern. Some research even supports the positive impacts of gaming, such as developing and/or improving:

- problem-solving abilities
- perseverance
- pattern recognition
- hypothesis testing
- estimating skills
- inductive skills
- resource management
- logistics
- mapping
- memory
- quick thinking
- reasoned judgments [1]

## When Online Gaming Becomes Problematic

Gamers are increasingly drawn to massive multi-player online role-playing games (MMORPGs). Players create a unique avatar (their player character) and become immersed in a virtual world with an evolving community of gamers. Popular MMORPGs are World of Warcraft, Final Fantasy, Fortnite, and Minecraft.

Players in online platforms, as opposed to off-line, are more likely to develop addictive behaviors. The social pressure to keep one's avatar strong and gaming skills sharp to compete with other players promotes unhealthy levels of play [2].

### Risk Factors and Personality Traits

Emerging research is exploring the connection between personality traits, risk factors, and problematic gaming.

Personality traits that correlate with problematic gaming among youth are:

- impulsive decision making [3]
- sensation-seeking behaviour
- low extraversion [4]

Risk factors for problematic gaming in youth are similar to other substance and process addictions; they include:

- depression
- anxiety
- trauma or post-traumatic stress disorder (PTSD)
- other pre-existing mental health problems
- unstable care patterns
- conflict at home
- parental neglect
- social disorders [5, 6]

### Negative Impacts

Problematic gaming can have negative impacts on youth in several life areas. School, social relationships, mental health, and leisure activities are all affected by problematic use [7].

Students who play video games daily are more likely to report problems at school and physical health problems than those who play less frequently [8]. Pathological gamers also receive lower school grades on average and have a higher rate of attention problems [7]. Additional consequences of unhealthy gaming patterns include depression and anxiety [9]. The Diagnostic and Statistical Manual of Mental Disorders, Fifth Edition (DSM-5) states that people who are at risk for developing a gaming disorder may lose interest in their other hobbies and forms of entertainment [10]. The compulsion to game over the desire to engage in previously enjoyed healthy leisure activities is especially risky for the developing brain. Learning from leisure activities forms important physical and cognitive developmental pathways [2].

### Gaming Disorder Warning Signs

- preoccupation and obsessive thought patterns about internet use
- problematic behaviours
- problematic thoughts, including self-doubt, low self-efficacy and negative self-appraisal: "I am worthless offline, but online I am someone"
- negative self-view, so a person uses internet to create a different version of themselves, as well as gain feedback
- belief that one has more competence, confidence, comfort, and self-worth with online interactions and communications than with face-to-face contact [2, 11, 12]

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