Research has shown that vulnerability for a number of psychological disorders, including addictive disorders and depression, can be genetically transferred from one generation to the next.\(^1\)\(^2\)

Consistently, family studies have demonstrated that pathological gamblers have elevated rates of first-degree relatives — parents, children or siblings — with substance use disorders, suggesting a possible shared genetic vulnerability between pathological gambling and other addictions.\(^1\)

Studies suggest that both familial factors and shared genetic vulnerability may account for a portion of the development of a gambling disorder.\(^1\)

While it can be difficult to determine how much influence genetics has on the development of an addictive disorder, it is generally understood that genetics and environment work together to influence the growth of the problem.\(^3\)

One of the ways that genetics may influence the development of addictive disorders is through the transmission of underlying imbalances in brain chemistry. One model of this is the “reward deficiency syndrome” — a state of chemical imbalance involving multiple genes that causes an individual to crave environmental stimuli to compensate for the inherent imbalance — regardless of the consequences.\(^4\)

Research suggests that “reward deficiency syndrome” is affected by the brain chemical dopamine, a neurotransmitter that influences mood and judgment. In this way, genetically determined levels of a brain chemical can influence the development of the addictive syndrome; three of the most important relating to addiction includes serotonin, dopamine and endogenous opioids.\(^4\)

**REFERENCES**


