## What Happens When the Female Brain Plays the Slot Machine

When a woman plays the slots is her female brain doing anything different?

Women playing the slots may see themselves as having harmless and enjoyable, low risk fun. They neither consider themselves high stakes players nor compulsive or pathological players.



When Your Female Brain Plays the Slot Machine

Brain-wise there is little that separates the different types of female gamblers — be they slots, high stakes poker, blackjack or roulette players. The excitement of playing by itself, as well as winning can stimulate the brain's internal reward circuits by setting off a cascade of the feel good hormone — dopamine. The same dopamine rewarded circuitry also occurs when the female brain encounters the common near-miss phenomenon of the slot machines.

Neuroscientist, Wolfram Schultz from Cambridge University hypothesizes the human dopamine system responds similarly to monkeys when they are subject to different reward scenarios. When the dopamine receptors of monkeys are activated, the receptors also act as future predictors of success based on prior reward experiences. If the reward does not manifest as predicted, the dopamine receptors eventually stop firing.

If an unexpected reward occurs, the receptors are again immediately activated but fire at a much higher rate than expected (giving an extra dose of feel good sensations).

Schultz sees playing the slots as creating the same kind of dopamine receptor activation. A *"win"* will not only activate the reward center but also create anticipation for future rewards.

When a near-miss occurs, the dopamine circuity will be looking for the next future reward and the brain will be trying to figure out if there is a winning strategy. But, when there is a random win the dopamine circuits of the brain increase their excitation rate to an even greater level.

It is the random reward that is actually activating the dopamine circuits of the female brain with a greater reward (feel good) response than if the female brain was able to find a winning strategy.

What makes the male and female brains different when it comes to the rewards of slot playing is that **the male brain is being** activated in the area of motivation(ventral striatum) and the female brain is being activated in the emotional area(amygdala-hippocampal).

So with every winner you see or hear, your dopamine circuits keep you excited and keep your female brain emotionally involved.

With every near-miss your chances for a win increase and your dopamine circuits want to convince your female brain to hang around for the next big win.

Win or lose the gambling industry knows how to play to the dopamine circuity of your female brain.

by Joyce Hansen