## On the Technique

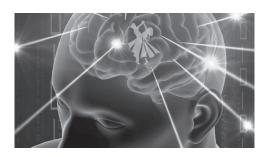
## Ballroom Dancing Improves Brain Function

**by Richard Fiore** (Licentiate, (LAB, LAR, T) US Imperial Society of Teachers of Dancing



In today's high-tech world, most individuals have become inundated with an array of digital gadgets. The extensive use of smart phones and other multi-function

digital devices is widespread by nearly all age groups in modern day society. The average person spends numerous hours each day interacting with electronic devices such as computers, smart phones and tablets. These devices have created a more automated lifestyle pattern that has changed the way in which individuals utilize their cognitive skills. While these devices help with productivity, they also have a serious downside. For example, studies confirm that higher levels of stress and sleep deprivation result from the photonic emission of digital display screens, especially at night. These digital devices have an addictive quality with a mesmerizing effect that is likely to shift our brain function into low gear over time. In a sense, many have become trapped in a digital world. For this reason and more than ever, we need to exercise our brain more holistically. This article highlights some of the benefits of ballroom dancing and how it can enhance brain function while providing a sense of well-being. It is a well-established fact that aerobic activity alters brain chemistry in a positive way. Unlike many other aerobic activities, ballroom dancing has three major aspects, i.e., social, physical and cognitive. The



combination of all three makes dancing a superior activity.

First, it is a social activity that involves interaction with another individual in the context of a group setting. This alone makes dancing a very desirable and beneficial activity. It fosters social connection between people and creates a sense of belonging.

Second, it is an activity that requires a certain amount of physical exertion. This results in the release of brain chemicals known as endorphins which create a heightened feeling of well-being. Endorphin release is also nature's built in painkiller. Studies have reported that endorphins have a more potent and longer lasting effect than many synthetic painkillers. The physical movement of ballroom dancing also affords one creative expression on the dance floor along with the added benefit of burning calories.

Third, the practice of ballroom dancing involves cognition and spatial perception. In the process of following the organized structure of ballroom dancing, both partners need to be able to navigate along the dance floor while avoiding collisions with other dancers. Moving through the dance space requires heavy reliance on one's visuospatial perceptual skills. Our brain has to constantly make numerous real time decisions in order to maintain smooth and efficient movement along the dance floor. All of these aspects of partner dancing make this activity highly desirable and beneficial. Moreover, the state of mind after a good night on the dance floor is generally one of relaxation, contentment and mental clarity. In this sense dancing gives one a more positive outlook on life.

One of the most beneficial features of ballroom dancing and the enhancement of brain function is found in the area of human memory. It has long been established that a specific part of the brain known as the hippocampus plays a key role in memory. Research has demonstrated that this brain structure shrinks as much as one to two percent each year in the majority of adult individuals. As this process progresses, overall memory

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function becomes compromised. Researchers have also discovered that practicing creative dance movements is likely to slow down deterioration of the hippocampus over time. In fact several neurological studies on human memory indicate a measurable increase in hippocampus size as a result of regular ballroom dance activity. This is attributed to the fact that ballroom dancing relies heavily on the use of memory. Over time and with consistent practice, ballroom dancing serves to enhance memory skills. Memory, spatial awareness and processing time are all likely to be enhanced as a result of ballroom dancing. When individuals engage in this activity, positive changes take place. Dancing requires the brain to work more intensely on many levels at the same time. This is likely to lead to increased neural connectivity and the formation of new neural pathways.

Ballroom dancing augments brain function on many levels. It gives one the ability to utilize cognitive skills more fully. It is also an important key that unlocks the door to 'feel good' brain chemistry. Unlike many other physical exercise programs, ballroom dancing has several very unique advantages in supporting brain function. The benefits derived from ballroom dancing are also likely to carry over to many aspects of one's everyday life.