

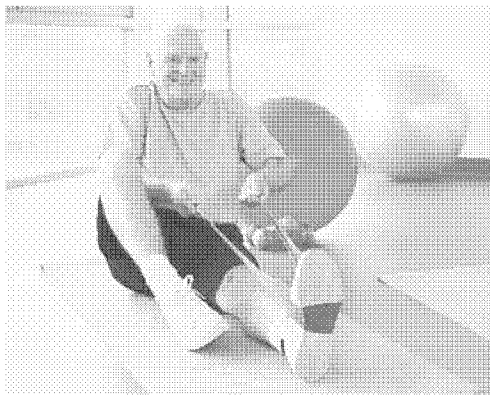
Parkinson's and Exercise

By Hawkins Williams, Central Illinois Institute of Balance

Parkinson's Disease (PD) occurs when nerve cells, or neurons, in an area of the brain that controls the central nervous system become impaired and slowly die. Normally, these neurons produce an important brain chemical known as dopamine, but when the neurons waste away, they produce less and less dopamine. Without dopamine, messages cannot be sent from the brain to the muscles. This lack of dopamine causes the movement problems, such as tremors, balance difficulties and trouble with walking that are characteristic symptoms of Parkinson's.

No one knows what causes these brain cells to waste away. However, according to the National Parkinson's Foundation, there is a growing consensus amongst researchers about the short and long-term benefits of exercise for people with Parkinson's disease. Studies indicate that exercise may help slow down the death of dopamine cells.

Those with Parkinson's disease have weak lower body muscle strength and struggle with balance, which causes problems with walking. This may be due to the inability to perform a heel strike and a toe off, which is the normal walking motion. If this normal motion does not



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happen, shuffling often occurs which can lead to falling. Some people with PD are likely to fall five times more than healthy older adults. Falling causes injuries and is the most common cause of hip fractures. After a hip fracture, most patients never make a full recovery and many require long-term placement in a care facility.

A balance and high intensity resistance strength training program can help those with Parkinson's. A strength and balance program can improve their walking ability and thus reduce the likelihood of falling. One study showed that after 10 weeks of strength and balance training there was a significant increase in both areas. However, four weeks after they stopped the exercise training, the previous gains were lost.

Increased muscle strength in the lower body seems to be the key to better balance. Those with PD should be sure to include strength training of the knee muscles and exercises designed to increase the range of motion in the ankle. Some other benefits of exercise for people with PD include reduced episodes of freezing, better balance, stronger muscles, increased flexibility and better aerobic levels. And, just like people without PD, once you stop exercising, the benefits will diminish. So it's important to be consistent and exercise on a regular basis. Before beginning an exercise program, be sure to check with your health care professional.

Central Illinois Institute of Balance (CIIB) has an exercise class held twice a week that focuses on both balance and strength training. The classes are geared for all older adults, but are particularly effective for those with Parkinson's. Classes are held at the CIIB, 211 Landmark Dr., Suite E-3, in Normal. For more information, you may call 309-663-4900. Before beginning an exercise program, be sure to check with your health care professional. CIIB also evaluates and treats any type of disorder related to balance or dizziness.

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