

# Michael j. fox: battle with parkinson's. essay



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Battling for Two Decades: Michael J. Fox v. s. Parkinson's Disease The most memorable moments in television and film history are marked by their ability to remain in the hearts and minds of society. These pieces of entertainment are generally known as the classics, for possessing some factor that appeals to the world.

Often times, the classics can be easily distinguished by society's eternal use of quotes taken from film. Certain films have a phrase, a couple of words, that instantly triggers the memory of anyone who hears them. From Scarface's " Say hello to me little friends! ", Dirty Harry's " you feeling lucky punk? ", and even Spiderman's " With great power, comes great responsibility". To further demonstrate the effect that a single quote can have in keeping the memory of a film alive, a two word phrase can be instantly connected to the classic film. " Great Scott! " from Back to the Future, are words which when heard by most will relate them to the well known film and the actors which made it a classic. The quotes of these historic films are the tools by which society relives their greatness, but it is the actors/actresses which allow for those strong feeling to form.

In the case of Back to the Future, the actor that instantly comes to mind and represents the film is Michael J. Fox. Far before the production of Back to the Future, Michael J. Fox began his life in Alberta, Canada in 1961 to William and Phyllis Fox. Fox began his acting career at the age of 15, with parts in Canadian television and roles in American movies filmed in Canada. At 18, Fox landed the role of Alex P.

Keaton on the hit show Family Ties which lasted seven years and gained him Emmy awards and a golden globe. Several years later Fox acquired the role of a New York deputy mayor in the sitcom Spin City. This followed by multiple nomination ps and awards and increased his presence in the acting community. While starring in Spin City, Fox also appeared in many films including the Back to the Future trilogy.

In 1988, Fox married fellow Family Ties co-star Tracey Pollan and eventually had four children. In 1998, Fox revealed that he had been diagnosed with young onset Parkinson's disease which he had known since 1991. After releasing the knowledge of his condition to the public, Fox began funding research on discovering a cure for Parkinson's disease during his lifetime. Parkinson's disease has a history that stretches as far back as the 12th century B. C.

with references to similar key symptoms but wasn't formally documented until 1817 by the British apothecary James Parkinson in The essay on the shaking palsy. The disorder was known as paralysis agitans at the time until it was given the name Parkinson's disease by Jean-Martin Charcot.

Parkinson's disease is a chronic neurological motor disorder that causes degradation of a group of neurons found in the brain known as the substantia nigra. The neurons of the substantia nigra normally innervate the basal ganglia which are a grouping of nuclei that effect motor function.

The substantia nigra interacts with the basal ganglia through the use of a transmitter that it produces called dopamine. Parkinson's disease acts to decrease the production of dopamine as it degrades the substantia nigra and

cause motor function problems. Parkinson's disease (PD) is characterized by four main symptoms; tremors, rigidity, bradykinesia or slowed movement, and postural instability. The tremors present as uncontrollable shaking of the jaw, face, and extremities while the rigidity affects the limbs and trunk. However, progression of the disease varies among individuals. As the disease progresses, the symptoms begin to manifest more aggressively with tremors seen in most patients.

Other symptoms can include depression, difficulty swallowing, chewing, and talking, along with changes in sleep patterns. PD prominently presents itself in patients over the age of 60, but can be seen in patients as early as the age of 20. A generalized notion that has formed is that PD occurs only in the elderly and that younger people aren't at risk. This idea combined with symptoms in the early stages being difficult to notice causes many case of PD to go undiagnosed.

Another preconceived notion is that tremors as a symptom are required to determine that one has the disease, however it is not always present in patients and adds to the reasons it can be overlooked in the earlier stages. There about 1.5 million Americans that have PD and an additional 60,000 cases occurring every year. As stated previously, PD presents typically in older patients however, 10-20% of diagnosed occur before the age of 50 and half of those before the age of 40. Idiopathic PD, which is the case for patients who are diagnosed after the age of 40 differ from those with young-onset PD in that they can be diagnosed from the age of 21-40.

Symptoms seen in young-onset PD are typically the same as those with PD but often have an easier progression because there are usually fewer additional health concerns due to old age and mental health effects are also less due to the younger age. There still has not been a cure discovered for PD, although there are treatment methods which aid in slowing the progression of the disease and in the early stages, prolong motor function degradation. An important treatment method is the administration of Levodopa-Carbidopa to raise dopamine levels. PD targets the substantia nigra, actively decreasing the production of dopamine. Dopamine itself is unable to pass the blood brain barrier and therefore cannot effect the central nervous system. Levodopa is a precursor compound capable of passing the blood brain barrier and is decarboxylated into dopamine. Carbidopa is a decarboxylase inhibitor given in conjunction with Levodopa that minimizes the conversion Levodopa into dopamine before entering the central nervous system.

Similar to dopamine, Carbidopa is unable to pass the blood brain barrier and as result remains in the peripheral nervous system no longer inhibiting the production of dopamine formed after entering the brain. This prevents increased dopamine levels in the peripheral nervous system which can leads to nausea and vomiting. The use of Levodopa-Carbidopa has been seen to have the greatest benefit over other treatment options in counteracting the motor function problems cause by PD. Other forms of treatment include exercise, which keeps the muscles of the body active and speech/swallowing aid as difficulty in swallowing and chewing may become a symptom for

patients. Michael J. Fox was diagnosed with Parkinson's disease at the age of 30, and with the 5-10% of diagnosed under 40 years of age had young-onset.

Fox's progression of PD was similar to a typical case, presenting the known symptoms and effects. In his book *Always Looking Up: The Adventures of an Incurable Optimist*, Fox account his struggle to overcome his depression of PD and how he implemented his optimism with his work, politics, faith, and family. The book offers a clear depiction of not only how Fox dealt with the disease but also an understanding on the disease itself and how it functions. Fox begins the book by remembering a morning 19 years earlier in which he awoke with his left pinky twitching and how since then his body seen many changes and has led to mornings in which his entire body was shaking uncontrollably.

He notes that when he is awake he is constantly in a state of motion but says that, "Technically, my body is only fully at peace when my mind is completely at rest, that is-asleep". As he is asleep, there are less neurons firing, and in his case, less misfiring which leads to the uncontrolled movement. As anyone does when they awaken, Fox begins his morning habits of going to the bathroom, brushing his teeth, and shaving, each of which are a task in themselves. As he leaves his bed to start the day and places his feet on the ground, Fox experiences the effects of dystonia which is severe cramping of the feet that curl inwards, an event that Fox calls an "argument with his two feet". As he brushes his teeth, he must do so in a circular motion and in such a way and timing that doesn't lock his right hand when raising to far which leads to what he refers to "disarming a knife-

wielding attacker". Shaving takes similar attention, however Fox knows which days are worth doing so in prevention from any unneeded bloodshed.

His morning progresses in a similar fashion with this remaining tasks, as he showers and dresses keeping in mind all the changes that PD entails. Fox quickly described how PD has effected his work over the years and the changes he has had to make to allow for acting to continue. As a known beneficial treatment option, Levodopa is given to PD patients to help the motor problems. Fox was conscious of when using drug, attempting to balancing when he was on or off them to accommodate acting. When he was producing he would use minimal amounts so that when it came to acting he could raise the dose and appear steady during filming.

However, Fox found this to very rarely work and caused dyskinesias which he refers to " uncontrollable movements like undulating, weaving, rocking, and bobbing". Fox had established several tricks which allowed him to conceal his uncontrolled movements, by leaning against object and people as well as shifting in chairs or going behind desks to mask his moving legs. Eventually, he realized that this would not be enough and so found a new way to help him with his PD and acting. Fox noticed that he could focus, what he called " Parkinsonism energy" into a single extremity and conceal it behind props or actors to appear normal. As much as Fox tried to seem that he did not have PD on set, many times arose where it interfered and caused him problems.

On instance, Fox states occurred on the set of Spin City where there was filming of a scene where another actor and himself were to enter a door one after another. When Fox arrived at the door, he stopped moving and his

coworkers became confused as to his appearance. When asked what had occurred, Fox stated that “ occasionally, when my brain asks my body to perform simple tasks that involve some degree of judgement regarding spatial relationships, the message gets lost in transmission”. He continues to say that it sometimes requires the movement or addition of man obstacle to promote him to move and that often people with Parkinson's have a ruler placed in front of them to force them to step over it. Often times, the tremors associated with PD are the first symptom and sometimes only that is thought of but others occur as well that have equally debilitating effects.

Rigidity is another that causes problems in patients and Fox notes times in which it occurred. At times, his coworkers would walk past him in the halls and greet him and he wouldn't so much as move his head in response. Fox says that there were times that turning his neck to look behind him were impossible and that when he gathered momentum in walking that to stop and then restart would be ten times more physically taxing as other people without PD. Just as PD affects physically, there are also physiological effects that patients experience due to the decrease in dopamine but also because of the realization of the disorder itself. In the third section of his book, Fox talks of faith and how it played a part in his life and PD.

After learning of his condition, Fox established a drinking problem that he eventually quit about a year after but not without hesitation. Fox looked at alcohol as a way to lessen the realization of PD and what that meant for his life. He soon found that he wasn't afraid of not having the alcohol to help him but that he didn't know what to expect from this condition. Not knowing was



placing fear in him, but as Fox learned more about PD it soon decreased and found that he had to respect PD.

He soon became “ proactive rather than reactive” by reading information on PD, visiting patients that had been living with it, and meeting doctors with better knowledge. Fox stated that, “ respecting it, however, doesn't mean tolerating it. And you can only vanquish an enemy you respect, have fully sized up, and weighed by every possible measure”. This outlook on his condition allows Fox to take control of his life and look to the future, rightfully earning his titles book of always looking up.

Michael J. Fox is 49 today and although his symptoms have progressed and worsened over the 19 years since he was diagnosed, his inner strength has remained unshakable and he continues to show his support for helping in learning about Parkinson's and finding a cure. His books are a testament of his struggles and accomplishments that allow people to view his life and how someone lives with PD. It also helps people who have just been diagnosed by letting them read about the first hand account of someone who has been where they are and have positive result to look forward to.

Fox also has his own foundation that helps in research for PD and has collected 213 million dollars towards the hope that a cure will be found. So where Fox was once remembered for his early acting success and eventual place as a star in movies like Back to the Future, he will also always be known as someone with Parkinson's disease. Someone with PD, that didn't let it define them and someone that did everything they could to stay strong and continue living his life. Even going as far to fund research so that one

day people could have a cure and live healthy lives. Parkinson's disease may be a degenerative disorder, but Michael J.

Fox hasn't missed a step when it comes to his inner strength and fight against this clinical disorder.