So if we look at Parkinson's disease, the epidemiology of Parkinson's disease that we typically see are individuals typically in their late 50s to early 60s. That's when we see a bump in the number of Parkinson's patients. Now, of course, the risk factors for Parkinson's tend to be age. So the older you are, there's a higher risk of developing Parkinson's. But typically, we see that bump in the late 50s to early 60s population.

But the Parkinson's population has a long tail in both directions. Some of the oldest patients I've seen have been in their mid-80s, with genuine Parkinson's responsive to medication with the classic presentation of symptoms. And I've seen Parkinson's patients in their late 30s as well. So it really is a long tail on both sides, with a larger bump in that portion.

The way I approach Parkinson's patients today, is when I diagnose them, I know mentally, that if they're diagnosed in the average age group, that really it's about a 20 to 25-year journey with the current life expectancies in the United States. So I often tell folks that Parkinson's is not a sprint. It's actually a marathon and where we address needs. And the needs change over the course of time, from early Parkinson's, to moderate Parkinson's, to advancing Parkinson's.

For the purposes of our conversation today, I'm going to talk about really early Parkinson's, moderate Parkinson's, and advancing Parkinson's in terms of motor features, not necessarily non motor features. Early on, the biggest challenge with Parkinson's is coming to terms of the diagnosis, understanding the diagnosis, what it may portend for the future for individuals, how they may have to change their lifestyles, their expectations. Much of that work has to be done between the patient and the patient's caregiver or spouse or family members.

With advancing Parkinson's, let's say in the more moderate stages of your Parkinson's journey, the challenge has changed. There become going from accepting the diagnosis to really working with the medications, to keeping up with the symptoms of the medications, making frequent appointments to come in to make sure the medications are adjusted appropriately. The ofttimes that occur with Parkinson's, when medications aren't as powerful and need to be increased, or medications need to be taken more frequently need to be adjusted, this may be a role for adjunctive therapies to be added on, depending on the type of symptoms that are being experienced.

Starting with physical therapy, if it hasn't been started early on, exercise is one of the things I talk about early on in Parkinson's, but really, making sure physical therapy exercise is really being done to maintain physical conditioning, in addition to medical therapy. In that moderate stage of Parkinson's, we may also see a lot more depression coming up, because they're realizing the progression of Parkinson's. We may see the emergence of cognitive issues, as well, and that adds to the overall disease burden, though we're talking mostly about motor symptoms.

With advancing Parkinson's, issues will come up, such as fluctuations becoming more problematic, ofttimes becoming worse, or maybe more unpredictable. In addition to that, the other issues may be along the lines of dyskinesias that might occur. And the emergence of dyskinesias may, in many times, limit therapies, if we're not able to manage them by adjusting medications or adding anti-dyskinesia therapy.

In short, the biggest problem is with the advancing of Parkinson's, the therapeutic window narrows. Individuals often have to take medications more frequently. They may have to take higher doses of medications, a combination of medications, and still may have fluctuations with dyskinesias and Offs, and may be potential candidates for surgical therapies that are available out there.