



# The Value of the Speech-Language Pathologist (SLP) in Treating People with Parkinson's Disease (PD): Immediate Impact



SLP Treatment for People with PD Improves Communication, Swallowing and Quality of Life (QoL).



## Improved Voice and Communication

For people with PD, intensive SLP voice treatment leads to...

### Improved Speech and Communication

- Increased communicative effectiveness (25%).<sup>1</sup>
- Improved turn-taking (143%), initiation of communication (125%), and participation in communication overall (12%).<sup>1, 2</sup>
- Increased speech intelligibility as reported by care partners (27%) and objective measures (5%-32%).<sup>3-6</sup>
- Reduced severity of dysarthria (13%-23%).<sup>7</sup>
- Reports of fewer repetitions and increased verbal communication in 60% of people with PD.<sup>8</sup>

### Improved Prosody and Loudness

- Increased loudness in 55%-87%<sup>5, 6</sup> of people with PD, with increased loudness in monologues (3-8 dB)<sup>2, 7-9</sup> and conversation (3-7 dB).<sup>1, 10, 11</sup>
- Improved prosody in 50%<sup>12</sup> of people with PD, with increased vocal range (5-11 Hz).<sup>8, 10</sup>
- Improved self-perception of prosody (25%-28%).<sup>12, 13</sup>

### Improved Voice Quality

- Improved dysphonia (21%-57%),<sup>18</sup> hoarseness (50%),<sup>14</sup> and breathiness (49%).<sup>14</sup>
- Improved voice-related QoL (27%-61%),<sup>1, 5, 10, 15</sup> with reduced impact of voice disorder on daily activities (30%-53%),<sup>2, 16</sup> vocal symptoms (32%)<sup>2</sup>, and emotional well-being (53%).<sup>2</sup>



## Improved Swallowing

Following intensive SLP treatment, people with PD experience a 23%<sup>17</sup> increase in pleasure of eating, with...

- Improved swallowing-related QoL (8%-16%)<sup>18, 19</sup> and function (61%).<sup>20</sup>
- Reduced severity (61%)<sup>20, 21</sup> and frequency (14%-20%)<sup>17, 19</sup> of dysphagia symptoms.
- Improved swallow initiation (45%),<sup>18</sup> pharyngoesophageal segment opening duration (9%),<sup>21</sup> and spontaneous cough (12%).<sup>21</sup>
- Reduced dysphagia severity (36%-52%).<sup>22</sup>
- Reduced presence (36%-75%),<sup>17</sup> severity (41%),<sup>23</sup> and volume (44%)<sup>21</sup> of pharyngeal residue.
- Reduced swallowing-related fear (21%)<sup>24</sup> and emotional impact (59%).<sup>20</sup>
- Higher likelihood (88%)<sup>25</sup> of maintaining or improving Penetration Aspiration Scale (PAS)<sup>26</sup> scores during the course of treatment, with 33%-70%<sup>25, 27</sup> of therapy participants demonstrating improved PAS scores.

Following SLP-led compensatory strategy training and diet modification, aspiration is eliminated in 61% of patients with PD.<sup>28</sup>



## Multidisciplinary Treatment

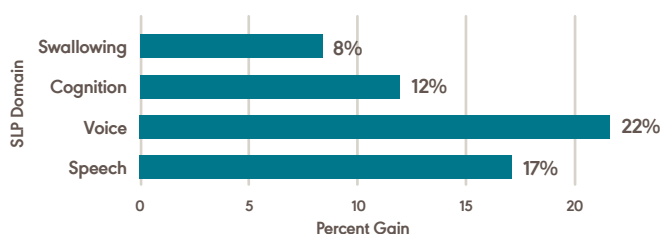
Following multidisciplinary SLP care, individuals with PD demonstrate improvements in voice-related QoL (25%)<sup>29</sup> and health-related quality of life (16%-41%),<sup>30, 31, 32</sup> with...

- Improved QoL for mental health (20%-43%), cognition (30%-34%), and communication (36%-49%).<sup>30, 31</sup>
- Increased knowledge regarding PD for care partners (93%) and people with PD (95%).<sup>33</sup>
- Reduced anxiety (10%)<sup>34</sup> and depression (8%).<sup>35</sup>
- Reduced perceived burden and extent of disease (15%-31%).<sup>31, 36, 37</sup>

Following inpatient multidisciplinary SLP treatment, patients with PD demonstrate...

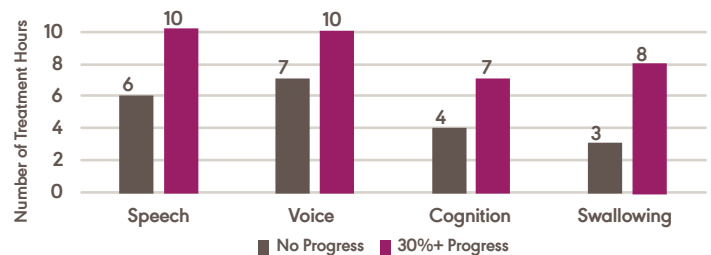
- Reduced dependence for cognitive-based tasks (23%).<sup>38</sup>
- Improved visuospatial reasoning (33%) and abstract reasoning (12%).<sup>39</sup>

## Percent Gain in Functionality



Patients with PD made an 8%-22% average gain in functionality following SLP treatment.<sup>40</sup>

## Treatment Hours and Progress



Patients with PD who improved by at least 30%+ in functional abilities only received 3-5 additional hours of treatment compared to those who showed no improvement.<sup>40</sup>

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