MOVEMENT DOMAIN (SYMPTOMS)

Category/Concept	Concerns	Coherence in Measurement & Classification — Explanation	Tier 1 Grade	Tier 2 & 3 Level	Bothersome mean %	Prevalence mean %	[Range]
SLOW MOVEMENT		Concept category					
Slowed movements	-	No concerns; One Tier 3 study disconfirming presence in early PD	A +	4 -	29%	54%	[5-83%]
LOSS OF COORDINATION		Concept cateogy					
Loss of coordination	Moderate	Variably reported and may confound fine motor with gross motor	B	x	10%	14%	[5-23%]
FINE MOTOR		Concept category					
Altered fine motor dexterity	-	No concerns; No disconfirming evidence	A	4	35%	85%	[71-95%]
STIFFNESS		Concept category					
Stiffness/Rigidity	Minor	Variable terminology (stiff, tight, rigid); No disconfirming evidence	A +	4	24%	62%	[50-69%]
Decreased range of motion	Minor	Inconsistent classification as symptom vs. impact; Limited evidence	D	x	13%	17%	[5-28%]
Decreased facial expression	-	No concerns; No disconfirming evidence	A +	x	3%	18%	[13-27%]
Impaired eye movements	Moderate	Encompasses blinking and pupilomotor control; Definitions needed	D	4	-	19%	-
WALKING, BALANCE & POSTURE	Minor	Concept category - composite concept blending walking and balance	B	4	21%	57%	[30-75%]
Impaired balance	-	No concerns; No disconfirming evidence	A +	4	20%	41%	[7-66%]
Gait changes	Minor	Variable approaches to measurement and multiple subconcepts limits synthesis	A +	4	32%	63%	[40-86%]
Shuffling	UA	Limited evidence in early PD <3 years	D	x	-	11%	-
Dragging feet	UA	Limited evidence in early PD <3 years	D	x	-	24%	-
Altered stride length	UA	Limited evidence in early PD <3 years	D	x	-	3%	-
Altered stance	UA	No evidence in early PD <3YSD	X	x	-	-	-
Altered turning	UA	Limited evidence in early PD <3YSD	D	x	-	5%	-
Altered double support time	UA	No evidence in early PD <3YSD	X	x	-	-	-
Staggering	UA	No evidence in early PD <3YSD	X	x	-	-	-
Freezing	-	No concerns; No disconfirming evidence	B	4	3%	6%	[4-16%]
Altered gait velocity	UA	No evidence in early PD <3YSD	X	x	-	-	-
Altered arm Swing	-	No concerns; No disconfirming evidence	B	x	5%	55%	[38-71%]
Postural changes	-	No concerns; No disconfirming evidence	A +	x	4%	15%	-
TREMOR		Concept category					
Tremor	-	No concerns; No disconfirming evidence	A +	4	57%	85%	[42-100%]
Sense of internal tremor	-	Sometimes confounded with "vibratory" sense	B	2	1%	9%	[8-9%]

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OTHER INVOLUNTARY MOVEMENT		Concept category					
Cramping/spasm	-	Variable terminology (cramping, spasms, dystonia); No disconfirming evidence	A	x	9%	30%	[20-41%]
Restless legs	Minor	Inconsistent classification as MS vs. NMS; One Tier 1 source disconfirming	B -	x	1%	13%	[0-38%]
Twitching	Moderate	Inconsistent terminology (twitching, jerking); no disconfirming evidence	D	x	-	30%	-
Dyskinesias	Severe	Inconsistent and disconfirming evidence all Tiers	B -	4 -	2%	11%	[0-2%]

Notes. PD= Parkinson's disease; UA=Unable to assess due to limited data; YSD=Years since diagnosis of Parkinson's disease; **Tier 1 Grade** A+=100% (Green), A=75-99% (Green), B=50-74% (Yellow), C=25-49% (Orange), D=1-24% (Gray), X=No studies supporting presence in early PD (Black); **Tier 2 & 3 Level** 1=75-100% (Green), 2=50-74% (Yellow), 3=25-49% (Orange), 4=1-24% (Gray), x=No Tier 2 or 3 studies supporting presence in early PD (Black). Minus sign "-" in Grade or Level indicates presence of disconfirming evidence. Color coding is used for visual identification of concepts with greater supporting evidence in Grade and Level. For bothersomeness and prevalence, darker colors indicate higher average frequency in studies reporting.