Table 3. Lifestyle physical activity recommendations and key messages for EDSS 0-9.0.

EDSS 0-4.5 (mild impairments)

Key messages

- Lifestyle physical activity can be accumulated as part of work, household, and leisure, activities
- Cooling strategies may be useful for those with heat intolerance

Recommended lifestyle physical activity strategies

- Options are: selected rather than prescribed, planned or unplanned/spontaneous, and accumulated in one long bout or multiple, short bouts throughout the day^{6,45}
- Physical activity is facilitated through behavior change strategies/techniques (e.g. self-monitoring) and environmental stimuli/prompts (e.g. alarms or calendar notes)⁴⁶
- Physical activity levels can be tracked through self-report (journal) or devices (accelerometry)^{47,48}
- Options include: 150 minutes per week or 30 minutes 5 days per week;^{6,45,49} 7,500 steps per day (0.5 standard deviation above the expected for the MS population and a clinically meaningful change);⁵⁰ increasing daily steps by 800 per day (smallest MCID);⁵¹ or increasing daily steps by 15% per day (smallest MCID); Godin Leisure-Time Exercise Questionnaire health contribution scores of either 24+ or 14–23 units based on starting point of 14–23 or <14 units, respectively⁵²
- Participation options
- \circ In-person behavioral education/coaching in groups or individually 53,54
- Remote physical activity behavioral education/coaching in groups or individually 50,55,56
 - Lifestyle physical activity is sustained after support interventions are no longer present⁵⁰
- o Active gaming⁵⁷
- Environmental stimuli/prompts (alarms/alerts)⁴⁶

Expert Opinion:

- Evidence that most individuals with MS and in the general population do not meet recommended levels of physical activity has prompted a shift from exercise training for fitness toward lifestyle physical activity for health and wellness^{6,45}
- · Options include walking, gardening, road cycling, hiking with poles, individual and team sports, and dancing
- Approaches for changing lifestyle physical activity can be delivered in person or through indirect channels (Internet, phone calls, or newsletters)⁵⁸

Same as above

Same as above

Participation options

• Motion sensors can help monitor activity and serve as motivation⁵⁹

EDSS 5.0-6.5 (increasing mobility impairments)

Key messages

Same as above, plus

- Using the appropriate mobility aid can promote physical activity and safety
- Adapted leisure activities can increase physical activity levels
- Specialists can facilitate greater physical activity levels

Expert Opinion/Clinical Considerations:

Same as above, plus

- Inconsistencies may exist when recording step count for people using mobility aids
- Decline in the amount of physical activity often parallels the person's reluctance to use a more progressive mobility device
- Adherence improves with enjoyable activities and ability to demonstrate progress toward goals

Key messages

- At this level of disability, all recommendations are expert opinion except where noted, due to lack of published evidence
- Daily physical activity is essential
- Functional movement of any kind, including ADLs, counts as physical activity
- Wheelchair sports/adapted physical activity programs may be appropriate and beneficial
- Rehabilitation professionals can help persons integrate more physical activity into the day

n's reluctance to use a more progressive mobility de strate progress toward goals Recommended lifestyle physical activity strategies

Recommended lifestyle physical activity strategies

150 minutes weekly, as tolerated

- · Walking, as able
- Manual wheelchair propulsion^{60,61}
- Power-assist cycling
- Swimming
- Water therapy with skilled provider
- Adaptive sports of all kinds
- Seated dancing, yoga, boxing
- Active weight shifting⁶²
- Pressure relief (front/lateral press-ups)

EDSS 8.0–8.5 (increasing difficulty performing ADLs—confined to wheelchair)

Key messages Same as above Recommended lifestyle physical activity strategies

150 minutes weekly, as tolerated

- Active participation in ADLs as able, with assistance when necessary
- Water activity with skilled provider
- Bed mobility with assistance when necessary
- Pressure relief (front/lateral press-ups)

EDSS 9.0 (inability to perform most ADLs—confined to bed or chair)

Key messages Same as above Recommended lifestyle physical activity strategies

- As much physical activity as possible
- Bed mobility with assistance
- ADLs with assistance (e.g. dental hygiene)
- Standing in a pool or in a standing frame may be possible with skilled support
- Passive pressure relief

EDSS: Expanded Disability Status Scale; MS: multiple sclerosis; MCID: minimal clinically important difference; ADLs: activities of daily living.