health challenge facing virtually every developed country. Slaman et al. and other early studies with disability populations suggest that it is even more complex and challenging in these groups. Clinicians and researchers working with young people with physical disabilities need to persist and continue coming up with new ways of helping young people with physical disabilities increase their activity levels – the health, social, functional, and well-being gains to be had are too great to do otherwise.

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Physical inactivity and secondary health complications in cerebral palsy: chicken or egg?

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> Nobody really lives long enough to die of old age. We die from accidents, and most of all, disuse.
> -Walter Bortz II, M.D.

In conjunction with the primary neurological insult, individuals with cerebral palsy (CP) are at risk of various secondary health complications including orthopedic abnormalities, exaggerated sedentary lifestyles, lower fitness, and musculoskeletal fragility. Fundamental movement skills are thought to be a central predictor of activity participation among children with CP, with those who are more proficient tending to be more physically active.[1] However, more than one-third of ambulatory children are at risk of losing the ability to walk by early adulthood.[2] Clinical efforts are thus largely directed at preserving ambulatory status by treating the overt symptoms of CP such as pain, fatigue, gait and orthopedic abnormalities, and spasticity. Despite the documented efficacy of these interventions to alleviate symptoms of physiological or biomechanical dysfunction, what remains to be determined is whether such practices actually lead to sustainable behavior modifications and/or preservation of activity patterns throughout the lifespan. In reality, and even with the typically developing pediatric population, low physical activity participation has become a public health burden, with less than 25% of adolescents meeting recommended levels.[3] Given that habitual activity behaviors are known to track from adolescence into adulthood,[4] and moreover, that physical inactivity is a modifiable risk factor for various cardiometabolic diseases, cancer and early all-cause mortality, evaluating the prevalence and contributing factors of participation among adolescents of *all* abilities may help to inform viable public health interventions.

In their recent study, Mitchell et al.[5] sought to determine the extent to which personal and environmental factors contribute to habitual physical activity among ambulatory children and adolescents with CP. Their findings identified several factors that were associated with greater objectively-measured physical activity, including physical 'capacity' (as determined by the 6-minute walk test [6MWT]), lower age, the male sex, and greater participation in the home and community. This is a valuable addition to the body of literature, and should serve as yet another reminder for clinicians and parents to vigilantly monitor physical activity patterns among children with CP. Perhaps more importantly, it also highlights several modifiable factors that could be targeted to potentially improve activity participation. Yet, as with all cross-sectional research, the interpretation of these findings must be viewed within the context of an unknown direction of causation. The authors make a strong and

valid case for examining factors that could be associated with variability in physical activity participation. Many would argue, on the other hand, that physical activity is also a modifiable behavior, and that a general tendency or motivation to participate in more activity might be a driver of greater overall participation in other activities in the home and community. Moreover, among children and adolescents who are engaged in greater volumes of physical activity, a natural physiological adaptation would be enhancement of muscular endurance, and consequently, better performance in the 6MWT. Whether lower functional capacity and lack of home/community participation 'causes' insufficient habitual physical activity, or if the modifiable behavior of physical *inactivity* itself is the contributing factor leading to progressive declines in physical capacity and less participation in other aspects of life (i.e. reverse causality), is an interesting and complex topic.

Regardless, and as the authors duly noted in the introduction, there has been very little focus on better understanding modifiable factors that reinforce healthy behaviors in CP. There is also a paucity of links between the basic research on etiological factors and medical treatments for CP, and the translational research on preventive health strategies unique to this population. By comparison with the general typically developing population, the study of health-related physical activity and exercise in CP is in its infancy. Indeed, nearly 60% of all papers on this topic have been published in the last 5 years alone. Future longitudinal research is thus urgently needed to identify optimal strategies that reduce barriers and reinforce greater participation in habitual, health-related physical activity in this population. Such efforts will be vital for changing the current paradigm towards prioritizing the support of cardiometabolic health, musculoskeletal integrity, motor function preservation, and quality of life for persons with CP throughout the lifespan.

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Thrombolytics for acute stroke in children: eligibility, practice variability, and pediatric stroke centers

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Thrombolysis improves outcome in adults with stroke; healthcare providers are hopeful that children may also benefit, though there are no completed studies that show safety and efficacy for patients less than 18 years of age. Marecos et al. audited charts of children with acute and non-acute arterial ischemic stroke (AIS) seen at their quaternary pediatric medical center (no emergency department or adult stroke unit, but serves as a national referral center for pediatric cerebrovascular disease) to assess which children would have been eligible for thrombolytic therapy.[1] The authors also defined their local criteria for stroke thrombolysis in children and looked for barriers to thrombolytic use. Of 107 children with acute AIS, they found that none would have qualified for thrombolytic therapy based on their criteria, though three (2.8%) would have qualified if diagnosis and transfer had been timely. The authors determined that they would give tissue plasminogen activator (tPA) to children less 8 years old arriving within 6 hours of stroke onset. They also state that they would require a pediatric National Institutes of Health Stroke Scale (PedNIHSS)[2] of 10 or greater. A PedNIHSS was not scored prospectively or retrospectively for these children.

Controversial issues in this report include the age group, time-window, and stroke severity as measured by the PedNIHSS. The Thrombolysis in Pediatric Stroke (TIPS) trial, a safety and dose-finding study for tPA, included children aged 2 to 17 years old but was closed for low enrollment.[3] If we reassess age in the current