“Arthritis is more prevalent in people with cerebral palsy. A study by Peterson, et al. (2015) found that joint pain was present in 43.6% of people with cerebral palsy compared to 28% in all others. The study also found the arthritis incidence at 31.4% in people with this diagnosis compared to 17.4% in others. Joint pain and arthritis were linked to a decrease in function, particularly in mobility.

People with cerebral palsy are also much more likely to develop arthritis at a younger age in comparison with the rest of the population (Whitney, et al., 2018). The authors state that individuals with cerebral palsy are at increased risk for chronic disease due to excessive sedentary behaviors and malnutrition. The study included adults between the ages of 18 and 30 years. Adults with cerebral palsy, GMFCS levels IV-V, had a higher prevalence of osteoarthritis (7.7%) compared to those at levels I-III (3.1%). More striking was the rate of osteopenia/osteoporosis at 58.6% for those at levels IV-V and 29.1% at levels I-III. The authors state that children with cerebral palsy have an underdeveloped musculoskeletal system and that mobility deficits lead “to a progressive loss of mechanical loading, which is an essential stimulus for musculoskeletal growth and maintenance.”

An abundance of research from the related field of ergonomic seating has found that constrained sitting contributes to arthritis, inflamed tendons and tendon sheaths, chronic joint degeneration, muscle pain and tissue damage (Lueder, 2004). Much of ergonomic seating design centers around providing movement to reduce this risk.

People with cerebral palsy are at increased risk of arthritis. This research should inform our seating and mobility practices. It is critical to provide weightbearing (i.e., standers, gait trainers) as well as to provide movement within sedentary seated postures (i.e., dynamic seating) as much as possible and appropriate.

REFERENCES

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