

# Apply EBP's 3 Practical Takeaways

From the article: “*Designing Exercise to Improve Bone Health Among Individuals With Cerebral Palsy.*” Gannotti, M. E., Liquori, B. M., Thorpe, D. E., & Fuchs, R. K. (2021). *Pediatric Physical Therapy*, 33(1), 50-56.

## Designing Exercise Programs for Bone Health of Individuals with Cerebral Palsy

1

### Timing: Prepubescence

- Critical period of bone growth
- Gains during prepubescence are sustainable
- Bone health can be impacted across the lifespan, so also consider other periods, such as adolescence

2

### Bone-building activities: Select & combine judiciously

- Match activities with sites targeted for osteogenesis
- Match activities with the child's abilities (e.g., GMFCS level)
- Include plyometrics, dancing, biking, treadmill training, etc. (read article for a list of activities and their osteogenic characteristics)

3

### Intensity: 100-300 loading cycles, many times a day

- 10-minute bouts (e.g., 100 box jumps, 10-min. punching bag)
- Dynamic loads should be as high as is safe
- 4-8 hours of rest between bouts
- 6 months duration