Improving kids' lives and making waves in pediatric therapy



Mary Pengelley, PT, DPT, ATP Progressive Pediatric Therapy

Boca Raton, West Palm Beach & Lake Worth, Florida

Training Product:

4 Galileo S35; 2 Galileo S25; 1 Galileo Kiddy; 2 Mano 20 dumbbells

"The learning process can't ever stop."

Mary Pengelley is one of today's most prominent voices in pediatric physical therapy and assistive technologies, stemming from a



passion that was evident even in her earliest work: a 1983 stint as a volunteer pediatric physical therapist with the Peace Corps in Jamaica.

"That was a good thing, in the sense that it made me learn to think on my feet and improvise and use what I had," she says. "It set the tone for my career."

That career took Mary from the acclaimed Blythedale Children's Hospital in Valhalla, New York, to Easter Seals and the Paley Limb Lengthening Institute in West Palm Beach, Florida, to the Arc of Palm Beach County. Along the way, she started a charter school in Florida for kids unable to walk or speak, utilizing many collaborators and volunteers, including adaptive equipment innovator, Adrienne Bergen.

"She had retired but volunteered once a month to do a wheelchair clinic," Mary says. "So I got to learn a lot about equipment and devices and things I probably would never have been exposed to otherwise."

In 2012, Mary saw an opportunity to build on her experience in a setting that would impact children and families in exciting new ways. She became the Physical Therapy Rehab Director for Progressive Pediatric Therapy in West Palm Beach, Florida.

"It was a very young company at the time, basically just doing home visits," Mary says. "Through the past ten years it's done a wonderful job of expanding, always with the drive for education. I think that's why we clicked. I just feel like the learning process can't ever stop."

As if to prove her point, Mary returned to school and earned her DPT degree with an emphasis in pediatric neuroscience, which she describes as "right up my alley — a big step for me, but it was fun and it really got me going again."

"Oh, we've got a Galileo."

Mary recalls the day she first learned of Galileo whole body vibration training. She



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greeted a young boy who had been coming to Progressive for occupational therapy for a number of years, and who had always sounded "gurgly" due to extreme secretions. But on this day, he surprised Mary by speaking without the gurgle.

"I said to his mom, 'He sounds better! What's going on?' And she said, 'Oh, we've got a Galileo.'"

Mary had many questions for the boy's mom, who brought the Galileo platform into the facility on their next visit. A second unit was brought in by a Progressive occupational therapist, giving Mary the opportunity to ask more questions and experiment with the technology. Finally, Mary brought in two children with cerebral palsy to use the Galileo platform.

The first was a young girl who kept one arm elevated and unused, relying exclusively on her other arm. The girl departed after a 10-minute weight-bearing session, but that evening, her mother sent Mary a photo of the girl eating a sandwich using both hands, surprising everyone.

The other girl was an older teenager who used a gait trainer. With no preparation of any kind, Mary placed her on the platform - in her gait trainer - for a single round of training. Upon completion, the girl immediately started walking and reciprocating her feet, placing one in front of the other. According to the girl's mother, she had never done this before.

"I was like, 'Okay, something's going on here," Mary says. "And my curiosity about Galileo really just grew from there."

"Wow, look at you standing!"

While pursuing her DPT, Mary had read the research on whole body vibration therapy and even tried a friend's (non-Galileo) vibration platform for herself, concluding, "This hurts my body, it doesn't feel safe - I would never put a kid on this."

The Galileo platform demonstrated, for the first time, that the promise of vibration therapy could be successfully fulfilled even for children!

(As for what became of her friend's platform? "It's a clothes rack now.")

After calling Galileo's North American distributor, Marilyn Hamilton, to hear more about Galileo's unique technology, Mary learned that the parents of the girl in the gait trainer ran a local nonprofit that provided equipment for kids with special needs. She approached them to ask about obtaining a Galileo platform to help her



pediatric clients, and in short order a unit was purchased for Progressive's West Palm Beach facility. When Progressive's owner saw the Galileo platform and the results it was delivering, a second unit was purchased for the Boca Raton location.

"Now PTs, OTs, speech therapists – they all use it, all with different goals but pretty universal outcomes: some big changes in the kids," Mary says.

As for the training itself, Mary customizes her approach to each child.

"I'll put a kid on the floor and just let them go experiment," she says. "Children are developing and they will repeat movement patterns that aren't so great, so we want to guide them toward those patterns that

are more functional for them. So I let them crawl up to the Galileo and put their hands on it, and I'll play next to them."

Mary usually sets up a toy for the child in front of the platform, often enlisting the help of a parent to engage the child's attention. When the focus is on the game, Mary is able to work more easily with the child's feet on the platform, including hyperextension exercises, knee relaxation and standing/sitting routines.

She is seeing amazing results in very young children, in particular.

"There's lots of little ones that are low tone and their bodies are not set up for extension. They don't know how to activate those muscles. I've had three that wouldn't bear weight at all. But the minute they got on the Galileo, all of a sudden they're just standing up. It's really fun to watch, and they don't forget it. They come back the next time, I'm like, 'Wow, look at you standing!"

Another success story is a very young boy with cerebral palsy who struggled even to breathe.

"He was so congested, his whole body was just straight and stiff, arms back, head turned, just breathing hard the whole time. So I laid him on the Galileo platform just to help him relax. Well, when he got on it his arms went down. In a few minutes he was laughing, and now it's like he's not happy until he's gotten on that Galileo. Within the hour it's a different kid. I can get him to sit up, put his hands down and balance. It's nice because I think we're changing his path right now for all the surgeries and all the things that were likely ahead for him."

"You've gotta make it fun."

Some children are not able to hold onto the Galileo Dumbbell due to muscular restrictions. But thanks to Mary's creativity and endless quest to make training fun, kids of all ages are benefitting.



"We actually wrap it with neoprene to make it a little softer in kids' hands, and we've attached a pool noodle to make it like a spear," she says. "You've gotta make it fun."

Depending on their abilities, Mary has some kids lay on the floor and push the Dumbbell, keeping their hands under it so that they benefit from the vibration while it is safely supported.

Others are able to hold onto the Dumbbell and even do assisted hand-over-hand exercises. And the results have been impressive:

"I get kids who are very fisted and put them on the Dumbbell, and they'll loosen up."

"My goal is to teach it well enough."

Having acquired first-hand experience, expertise and enthusiasm for the benefits of Galileo vibration training, Mary now spends a good deal of her time sharing these qualities with others through her teaching.

She wishes there had been more teachers on hand to help her fully understand the Galileo platform when it first arrived in her facility. Vexed by what she considered a lack of cohesive information on the technology, Mary began researching it herself, tracking down the various experts in vibration therapy to glean their wisdom on frequency ranges, optimal positioning, orthotics and more. Ultimately, she realized she had compiled exactly what was needed to fill the information gap. And she decided to offer it to her fellow therapists, to encourage and equip them with a set of best practices.

"You know why I teach? Because I'm going to retire someday," Mary says. "I want others to understand this stuff, so my goal is to teach it well enough."

"I have been blessed to have great mentors and people who really helped me learn a lot, and it's just time to pass that on."