



CLINIC SPOTLIGHT:

Sweet Dreams for Brooklyn

Brooklyn is a bright 3 year old with severe spastic quadriplegic cerebral palsy. She has significant technology needs in all areas - including mobility, seated positioning, nighttime positioning, communication and general switch access for play and learning. Brooklyn lives at home with her parents and little brother in Nebraska. She travels to Colorado for speciality care at Children's Hospital Colorado (CHC) and was referred to our clinic program by Dr. Joyce Olezsak, initially for a Nighttime Positioning Assessment because she was sleeping poorly. She is also being seen by our team for assessment of technology needs in the areas of wheelchair seating and mobility, switch access and augmentative/alternative communication.

When Brooklyn was first seen by Kelly Waugh, PT, MAPT, she was only sleeping 3 hours each night, crying and waking frequently - as much as 6-8 times per night. She tends to get stuck in uncomfortable positions at night due to her cerebral palsy and inability to control her movements. Her parents told us that when she was younger, she used to get her legs caught in the rails of her crib. She has tried numerous medications to help her sleep, but these have not worked. Her family has tried different mattresses, pillows and wedges to help Brooklyn stay in a comfortable position, but these have not helped either.

Brooklyn moved to a regular bed when she was 4 years old; however she developed skin breakdown on her back from sleeping on a standard mattress. She has been unable to lay on her side because she has abnormal muscle tone and movement. If she is put on her stomach she gets

abrasions on her face from rubbing on the mattress.

When Brooklyn was first seen in our clinic, she was sleeping in a big bean bag chair as this seemed to help prevent skin breakdown. However, she was still averaging only 3 hours of sleep each night. Despite her lack of sleep at night, Brooklyn was not napping during the day. She was very irritable during the day, frequently crying. Needless to say, everyone was exhausted!

Brooklyn's body forces her to sleep in very uncomfortable positions at night. This increases the risk of developing a scoliosis and worsening of her hip contractures. She sleeps at night with her hips adducted (knees together), which may be contributing to her joint stiffness and loss of joint range of motion.

As part of the Nighttime Positioning Assessment, Brooklyn was positioned in the Dreama Nighttime Positioning Mattress, a product manufactured in Britain by Jenx, Ltd. Brooklyn seemed to prefer lying on her back instead of on her side, and so specific support components were tried to help stabilize and elevate her. We talked about the possibility that Brooklyn feels unstable at night due to her inability to control her movements or posture, and that may make her feel uncomfortable and anxious. Her family thought that a trial of the Dreama Mattress was appropriate. Therefore the parents were trained on how to set up the bed and



we sent it home for a trial.

Brooklyn's parents reported the following remarkable results at a follow-up visit 2 1/2 weeks after beginning to use the Dreama Mattress.

1. **Brooklyn sleeps all night for 11 hours without waking.** She falls asleep on her own, and is not waking up at all during the night. She is happier during the day, she is more communicative and is showing better head control when sitting. Her mother feels that her attention span has improved and she is showing better cognitive endurance - being able to work on games for longer, etc. She even naps during the day which she had never done before!
2. **Reduced muscle tone and stiffness.** Brooklyn's mother reported that

(continued on page 4)



(continued from page 3)

her muscles are more relaxed and joints are looser when awaking - less tone and stiffness. She stays in good alignment throughout the night in the mattress because of the positioning components.

- 3. **No skin redness** after sleeping 11 hours in an elevated position, on her back.
- 4. **Brooklyn is now off all sleep medications.** Prior to the use of this specialized positioning mattress she was taking Clinazepam and Melatonin, and had also tried Clonidine previously.
- 5. **Brooklyn's startle reflex seems to have diminished.**

As further confirmation of the benefits of this mattress systems for Brooklyn, her mother reported that when she travels to Denver and stays in a motel, Brooklyn's poor sleep quality and duration returns. In other words, when she is at home using the trial Dreama Mattress she sleeps well, when it is not available she sleeps poorly, and when she goes back home using the Dreama Mattress she sleeps well again.

After these significant positive outcomes were reported, we submitted a report to Brooklyn's health insurance plan which outlined Brooklyn's problems in this area, and the medical justification for



About the Dreama Nighttime Positioning Mattress

The Dreama Nighttime Positioning Mattress is one of only two commercially available, adjustable positioning systems worldwide designed specifically for nighttime use. It can be more advantageous than using pillows, wedges and bolsters for some individuals because:

- The support surfaces remain in one place once adjusted, and therefore the desired therapeutic posture is maintained throughout the night.
- It allows for positioning in more than one posture, allowing the client to spend some nights in a therapeutic supine position, and other nights in a therapeutic sidelying position if desired. Being able to sleep in a variety of therapeutic positions supports optimal body system functioning and health. Some individuals can also be positioned in the mattress during the day for an out of wheelchair alternate position, or for naps.
- The primary sleep surface is softer, more comfortable and better designed to distribute pressure than a regular mattress or wedges/bolsters. A comfortable sleeping surface is critical to getting a good night's sleep, which is important to support a healthy immune system, body tissue repair and growth.
- Good skin integrity is promoted by the use of pressure relieving foam in separate individual sections which allow air circulation.
- The flexible mattress base and support pieces are adjustable, therefore the system will last a very long time, providing consistent nighttime therapeutic positioning if the client's body or condition changes.

a positioning mattress to address these problems. We recommended purchase of the Dreama Nighttime Positioning Mattress as a Durable Medical Equipment benefit.

As of this writing, the mattress has been approved by the insurance company and Brooklyn is awaiting delivery. In the meantime, she is still using the loaner

Dreama Nighttime Positioning Mattress at home, sleeping well at night and continuing to nap on the mattress during the day. Because she continues to experience poor sleep quality during her frequent and regular stays in Denver,

we are exploring solutions for a more portable, light weight system for travel.

