



## CASE STUDY Eleven-year-old boy with perplexing behaviors and Tourette's Syndrome

These case studies, each submitted by a Certified HANDLE® Practitioner, demonstrate outcomes achieved through implementation of an individualized HANDLE program. The acronym stands for the Holistic Approach to NeuroDevelopment and Learning Efficiency. The HANDLE paradigm for understanding behaviors and their root causes is thoroughly explained in *The Fabric of Autism: Weaving the Threads into a Cogent Theory*, by Judith Bluestone, the creator of HANDLE and the founder of The HANDLE Institute. For intimate insights into client and family experiences of HANDLE, see *The Churkendoose Anthology*, with commentary by Judith Bluestone.

For each of the clients in these Case Studies, the practitioner began with a comprehensive assessment, the findings of which led to a Neurodevelopmental Profile, which in turn formed the basis for a program of activities complex in their neuroscientific premises and very simple to implement. Thereafter the client's program was modified about monthly in accord with changes achieved in the interim. Each client participates in twelve to fifteen activities regularly; the practitioner, in writing up the case study, names those activities in brief without the full details and explicit information each client-family receives in why and how to implement the program. Go to [www.handle.org](http://www.handle.org) for more information.

### Referral Concerns

At a HANDLE Community Information Night, the client's mother told of how Tourette's Syndrome, along with other puzzling and distressing behaviors, were stifling the chances of a normal life for her son, as well as for their family. Life moved at a stride far too rapid for her son. Consequently, he proceeded through his day at a pace others would find excruciatingly slow. Once awake in the morning, it took a considerable length of time before he was ready to eat breakfast. Following breakfast, he needed time to recover before getting dressed; then another long wait was essential before he could brush his teeth. The velocity of an ordinary day easily overwhelmed the client, and his response was often physical. If he could not be allowed the luxury of moving to his own internal rhythm, he was apt to throw-up. The client's days were punctuated with various motor tics, including jumping and eye blinking. They came and went, as tics do. His family was unsure if his frequent gagging was a tic or if the client was experiencing stomach problems. The client

endeavored to disguise his vocal tics by using a high-pitched voice and acting clownish. At eleven years old, he did not drift too far from his mother, and he needed to know where she was at all times. He was compelled to physically touch his mother, hug her, kiss her, or tell her he loved her every few minutes. The client's sluggishness and inability to separate from his mother rendered a traditional school setting impossible, so his mother home-schooled him for the past two years. Academically, writing and math were both problematic and he was unwilling to read anything but short, simple books. Although the client was very creative and loved history, science and art, His mother was becoming increasingly doubtful that he would be able to accomplish much in the way of academics. She described as his tics and idiosyncratic behaviors as irrepressible and ceaseless.

### Background Information

In utero, the client had been anchored in position by his umbilical cord, which was less than nine inches long and was stretched so tight that it

resembled a thread, rather than a rope. Essentially immobile, the client's jawbone had been molded around his shoulder where it was wedged.

Despite a post-date delivery by C-section, The client's APGAR was satisfactory and he did not require additional time in the hospital. At home, however, the client had difficulties sleeping and was generally discontent. When he was two months old, doctors discovered that the client had a double hernia. Once repaired through a surgical procedure, the client's disposition mellowed and he was able to sleep. The respite, however, was short lived. The client experienced convulsions following his second DPT shot between three and four months old. His chronic ear infections through age two prompted more surgeries—two sets of tubes and two eardrum grafts. His severe asthmatic condition necessitated the use of a nebulizer around the clock. The client was hypersensitive to light, sound, smell, touch, and taste. He demonstrated aversions to various textures in food. Going barefoot was unpleasant for the client, and at eleven years, he had only just learned to tolerate walking in the sand. He was somewhat compulsive about hand washing, although he hated, almost feared other encounters with water. He would shower reluctantly, and only if his mom or dad were with him in the bathroom. At the time of his HANDLE assessment, the client had been taking Risperdol to help relieve some of his symptoms, but the medication had caused him to gain unwanted weight.

## Observations

When the lights were dimmed, and pastel paper was substituted for white, the client performed better on the visual worksheets and he also experienced fewer tics. The client was quite challenged on tasks requiring accurate binocular vision. On the Brock string test, he was unable to bring the near bead into focus, and he was confused by a different task that entailed visually untangling images from one another. Binocular weakness was further confirmed in a task that employed glasses with different colored lenses. Despite these visual disturbances, when asked to close his eyes, the client was reluctant to do so, although we were able to use a bandana as a blindfold to complete these portions of his assessment. On the auditory sequencing segment, the "k" sound caused

him noticeable difficulty, until he was told the sequence was the last one. He got it right on the first try. When answering questions after listening to a thirteen-word sentence of simple structure, he was unsure of some details. Although the client enjoys listening to stories, and ordinarily comprehends their meaning, his mother indicated that he often has difficulty following directions, and works best when given one instruction at a time. The client generally seemed to avoid moving his arms across the center of his body, commonly known as midline crossing. He also had a difficulty performing a repetitive motor pattern on a button-sorting task, particularly when distracted by conversation. The client also struggled significantly when asked to alphabetize the names of five animals in his head.

## Conclusions

During the assessment, evidence of low muscle tone was noted. This was established based on the client's tendency to lean on the desk unless he was in motion. It appeared that he remained in motion because he intuitively knows that there is less effort required in sustaining motion than in overcoming inertia. Additionally, the movement was a means of activating his vestibular system, thus helping him to maintain an alert state and equipping him with the ability to focus on performing the assessment tasks. The client's vestibular system was so fragile that a pace of life easily tolerated by most people caused him to throw up. The gestational circumstance of being anchored in utero, coupled with a thread-like umbilical cord that was surely unable to transmit an adequate supply of nutrients to a growing baby, were likely to have compromised his developing vestibular system in the womb. Proprioception, a sense of ease with one's own body in space, is supported by a healthy vestibular system. This sense was significantly underdeveloped. This was one reason why the client was hesitant to close his eyes during specific assessment tasks, and his mother's proximity was so vital to his sense of security. His proprioceptive weakness produced such insecurity that, at eleven years old, the client would not go solo into the men's room. When interhemispheric integration, the connection between the two sides of the brain, is not strong, it is difficult to engage in fluid mental processing in coordination

with motor planning and execution of behaviors. The client's reluctance to cross the midline of his body, difficulty with alphabetizing words mentally, and his confusion on the button-sorting task indicate that the client's interhemispheric integration needed strengthening to enhance his mental efficiency. From his early and repeated experiences with medication (steroids before the age of two for his asthma, numerous antibiotics for his chronic ear infections, later medication for his tics and quirky behaviors) and with anesthesia for his several surgeries, the practitioner suspected toxins as a causative factor in the client's many hypersensitivities. This suspicion was supported by the client's adverse reaction to a DPT immunization. It is possible that the client's fetal development was also affected by toxins, since his father, a boat builder, had almost continual exposure to toxic substances.

## Recommendations

Slow movements designed to carefully stimulate the vestibular system were recommended. Additional activities of drinking through a crazy straw and blowing air through a tube were suggested to reduce light sensitivity and refine binocularity. Face Tapping, Joint Tapping and the Peacemaker Massage were intended to strengthen proprioception and muscle tone, and Seated Clapping to enhance interhemispheric integration was included. Adjunct therapies and activities, such as cranio-sacral therapy for releasing tension in his skull and spine, as well as in myofascial (connective) tissue, were also suggested to complement the HANDLE activities.

## Follow-Up

Immediately following the client's evaluation, his mother stopped giving her son the Risperdol based on the decision to fully immerse themselves in their HANDLE program and gauge the results without the interference of medication. (Please note that this is not a procedure that HANDLE practitioners recommend, as it is generally unwise to discontinue medication abruptly and without medical supervision.) Initially, his mother reported a slight increase in her son's activity level and ticking after the cessation of his medication. However, his throwing up decreased markedly from

numerous times a day to just once in a week. His mother discovered that performing the tapping and massage activities prior to the client's rising helped to get him started in the morning and also provided him some relief from nausea.

At the client's Program Review a month later, his mother reported notable signs of improvement. His tics were diminishing and the only incidence of throwing up was that morning when he felt pressured to hurry due to his HANDLE appointment. As his program progressed the client began to test his ability to detach from his mother. He became comfortable sitting on the opposite side of the room from her and his drive to make physical contact was abating. On the ferry, the client felt competent enough to lead the way and even went alone to the men's restroom. He was now entering into social relationships with greater confidence. An overnight visit with a friend, which would have previously taxed him beyond his capacity, he managed handily. At his next visit, he made direct conversation with his HANDLE therapist rather than allowing his mother to confer on his behalf. At another appointment, we explored the origin of the client's gagging, and learned that it began when a bully once tried to force the client to eat a snail. At this time, we introduced another complementary therapy, Emotional Freedom Technique (a system relying on a structured series of reflex points on which to tap), to help diffuse the intense feelings associated with that experience. The client's focus was sharpening, and he began to read more frequently. He started enjoying math, and his handwriting improved. Although the client still moved slowly, he and his mother were finding that they could spend more time on his daily schoolwork. When a succession of illnesses in the client's family added considerable stress to their lives, regular implementation of the client's activity program suffered. It was reassuring to the client, his family and his HANDLE practitioner that, during this time, he did not lose much of the progress he had made. The tics that did begin to reappear went away within a few days of resuming his program. It was not long before people in his community began to recognize positive changes in the client. When the family doctor dropped in to check on the client's dad during his illness, he noticed the client sitting calmly in a chair,

conversing. The doctor expressed his surprise, as the last time he had seen him, the client was displaying many uninhibited motor movements and bouncing about the room.

By the end of the six-month HANDLE program, food no longer induced the client's gagging at all. The client's nausea was gone, even when he hurried or was unable to complete his morning routine of activities before going out into the world. Since stopping the Risperdol, he had lost twenty pounds. Swallowing pills was a new skill that the client developed, and his mother was able to introduce a regimen of vitamin supplements

specifically designed to ameliorate Tourette's symptoms, and she began to augment his diet with fish oil so he could benefit from its Omega 3 and DHA components—finally able to provide him the nutrients his body had not received adequately in utero and in his first eleven years. For the client, an occasional eye tic is the only reminder of life before HANDLE. The client no longer uses a falsetto voice to mask vocal tics, as the tics have vanished. On New Year's Eve, his mother asked the client what had been the best part of his year. His answer... "HANDLE!"

The HANDLE Institute presents these case studies to demonstrate the successes of the HANDLE approach and pique the interest of researchers and funders in engaging in clinical studies to further examine the efficacy of these interventions. For more information about The HANDLE Institute, go to [www.handle.org](http://www.handle.org) or email us at [support@handle.org](mailto:support@handle.org). You can download case studies from the website or email us to obtain pdf files.



**The HANDLE® Institute**