



## **Pre-Course Preparation – Case History #1**

**Exercise: Read the following case history and identify the specific neuroanatomical regions involved. Also identify any metabolic, lifestyle, or nutritional factors that may impact those regions.**

***This case history was written by Kristine's parents.***

Kristine is a 3<sup>rd</sup> grader who loves to sing, draw, and paint. She is very artistic and has performed in individual singing recitals as well as musicals. She used to ride horses, do aerial arts (silks), and the trapeze.

Current medications: A vitamin shake (Garden of Life organic plant protein – gluten and grain free), and right now she is taking children's Pepto due to stomach pains she's been having for the past two weeks. These stomach pains are a recurrent thing.

Herbal supplements: None at this time.

History:

Kristine was born by C-section because when the water broke her head momentarily hit the umbilical cord and caused a slight decrease in heart rate. Because I (her mother) was allergy to fentanyl, I was given a morphine derivative and I'm not sure how that affected her. In the hospital she had a hard time eating and gaining weight, she would cry after eating. They did suction out some blood from her stomach but even after that she had trouble with food.

We went to Dr. XXX who suggested I (mom) avoid certain foods. But even with the strict diet Kristine would cry and spit up her food shortly after eating. Finally a nurse at Dr. XXX' office suggested a chiropractor named Dr.XXXX. We immediately made an appointment



and Dr. XXXX said that part of her stomach was caught up in her esophagus and adjusted it. From that day on, she no longer spit up food. We wish we had found her sooner.

When she was still very little, she fell and got a goose egg bump on her forehead, but the doctor said just to watch her. She never got sick or acted any different.

Before she started school she knew her ABCs and loved to tell us stories she would come up with. The night before her first day of school she decided to write a story and give it to her teacher, so I (mom) helped her spell the words. She came up with the whole story and even drew pictures.

She was also very smart at coming up with solutions and ideas, like the time she wanted to fly her kite but there wasn't any wind so she tied it to her bike and rode down the street – sure enough that kite flew.

And then, school started.

We noticed an immediate decline. She no longer remembered her ABCs, she couldn't follow directions on the board, she couldn't follow verbal directions without reassurance as to what she should do next, and she got really bad stomach issues. She also seemed to have a problem breathing after eating bread or products made with wheat. She would say her chest felt really tight and she couldn't breathe. We tried changing her diet, taking out common allergens, and had blood tests taken to see if she had allergies, etc. We also took her to a doctor for an ultrasound to her chest area and to see if she had asthma. They didn't find asthma but prescribed medication for us to see if it helped. We didn't fill the prescription because it was written to the wrong person and had to wait an hour for the Doctor to issue a new one. We decided not to do it because we didn't want to give medication if it was not necessary.



It ended up that when we cut out gluten products she no longer had problems with her breathing.

One day she came to me and told me she had problems with her eyes; she couldn't see well and might need glasses. So we promptly took her to an eye doctor. They said one eye could see really far and the other really close, and that the muscles were very rigid. So they prescribed glasses. She wore them, and at first it seemed to help, but then they made her dizzy. So we took them to be adjusted, and further adjustments were made almost every two weeks. After a while the glasses didn't work. The glasses also did not make a difference with her being able to read the board or follow directions.

She began showing signs of dyslexia. Her school said they didn't recognize dyslexia until the 3<sup>rd</sup> grade and put Kristine in speech therapy at the start of 1<sup>st</sup> grade.

Until this time, Kristine rode horses and was riding very well and loved it, until the lines on the guard rails and painted lines on the jumps caused her to feel unbalanced and her stomach would get tight and she'd feel sick. She stopped one day mid-lesson and didn't want to go back.

In first grade she had started the special education program for speech, but by December they had signed her out of it. But she was having a hard time with writing and reading her writing. One day we ran out of the typical triple lined paper, the kind they give to little kids, and just had her write on a regular lined paper. Her writing was perfect and it looked like a different person wrote it. She does way better on paper that isn't busy with too many lines.

We still noticed problems with letters, mistaking her b's and d's, and many other letters. We had her evaluated for dyslexia and started the Davis Dyslexia program for reading. This is a 10-day intensive course to help her see the letters for what they are and not flip them. This



has helped but she still struggles with reading, even though she loves to read, it just takes her much longer.

In first grade we noticed she started pulling her eyebrows out. She would get very nervous in the class, too much noise was an issue with her. When they would play music while doing homework she would get mixed up. (They were not playing classical music or soft music and I really don't know what they were thinking). She started to have problems with noise to the point where she would listen to a show on her ipad at a level 1 volume. Music in the car would have to be extremely low volume. We took her to her doctor and found she had estuasion tube nodules that we had to lightly massage out. She still listens to things at a very low volume but outside noise doesn't seem to bother her as much.

She also had problems with lines. Lines on the chalkboard would seem to move and confuse her. If the teacher wore something with a lot of lines that made her feel very dizzy and she couldn't pay attention to class. She also would get confused with too much writing on the board.

We changed schools for 2<sup>nd</sup> grade and we are still there for her 3<sup>rd</sup> grade. While she is doing well in school, her math and reading are still a struggle. Yet she excels in writing class, it just takes her much longer to write her stories. She also likes to do research and oral reports for social studies.

In math she can easily get confused if you start a set of addition problems and then move to subtraction problems. Once she starts doing problems a certain way, it becomes difficult for her to adjust to the new problems. Things she understood last year are a problem for her this year. I notice she has been having a lot of stomach issues and when she gets these, her reading and math skills decline.



To help with her math we are thinking of doing the Davis Dyslexia for math but felt we need to get the medical picture on what's going on before investing in this program.

She continues to pull out her eyebrows, and has also pulled out her eyelashes. She displays many OCD type rituals. She did not want me to tell you about this stuff, I know she gets embarrassed so you may want to broach this subject lightly with her. She worries about her hands smelling like stinky metal, and will wash them right away if they do. That means any metal – including swing-set chains, door handles, metal railings, etc. She avoids touching metal, sometimes she will gently kick a door open so as not to touch the handle.

She had a friend sleep over who is a year older than Kristine and learned her friend had accidents urinating in bed. She and Kristine were in the same bed when it once happened. Now Kristine is constantly worried she might – leak, as she calls it. She constantly asks me her set of 'ritualistic' questions, and they have to be asked in a specific order or she will start over. She takes a long time in the bathroom because she feels she can't get herself dry enough. Even when she has just gone to the bathroom she asks me, 'do I have to go to the bathroom, do you think I have to go to the bathroom, am I going to leak, should I wipe myself again, can I wipe myself again?' Before her friend had that accident during that sleepover Kristine never asked those questions and never felt the need to ask anyone else if she had to go to the bathroom. Due to the length of time she takes in the bathroom and the constant wiping, I imagine going to the bathroom is a demanding, mental chore. I sense she gets frustrated asking the questions but doesn't feel ok until she does ask them. So she will ask them in a very mad tone. I understand this must be mentally exhausting for her.

I have also noticed she is very self-critical. She's an excellent artist but if she makes a tiny mistake she gets very angry with herself. We wondered if it was due to the first school, which had a perfectionist attitude where if any letters didn't properly touch the lines it was



counted as wrong, or if you didn't score a 100 on your math you needed to try harder. But she hasn't been there for two years.

She also has issues with her hands being clean and washes them constantly. She gets extremely dry hands in the winter. When she washes her hands, she now washes her mouth. I asked her why and she told me she saw a girl with crumbs around her mouth and kids teased her, so now Kristine, who wasn't teased, is washing her mouth, just in case.

She also has great difficulty making any kind of decision. Before she would know exactly what she wanted and that was it. Now, it's a lot of going back and forth. Even if the decision is made for her, she gets very frustrated because it might not be the right decision.

These seem like psychological issues and doctors have told us it could be anything from food allergies to something she will grow out of.

When she was younger she would wake up every morning happy and joyful. Now she wakes up and the slightest thing can set her in a bad mood. Mostly I think it's because of her frustration with her constant, non-stop worries.

Currently, she is having a lot of stomach pains when eating. She will be very hungry and then starts to eat and immediately her stomach will hurt. She has been taking Children's Pepto to help.