


# Acquired Traumatic Brain Injury

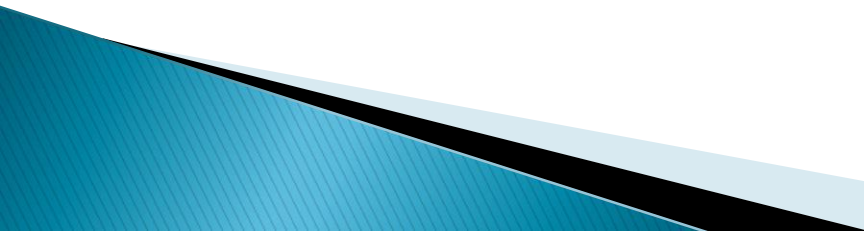
## Carolyna's Story

Margaret F. Ronis, O.D.  
3635 Boulevard des Sources  
Dollard des Ormeaux, Québec H9B 2K4  
(514)683-8448 Fax (514)683-9469  
Margaret.ronis@gmail.com

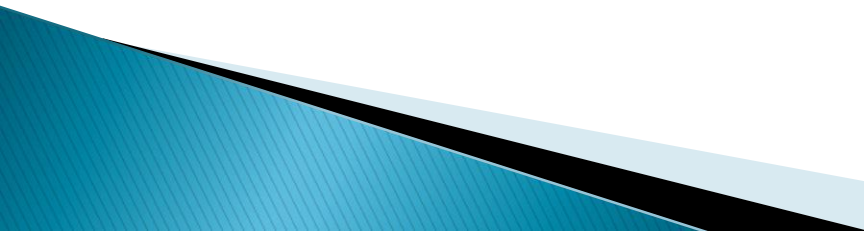
# History of Case

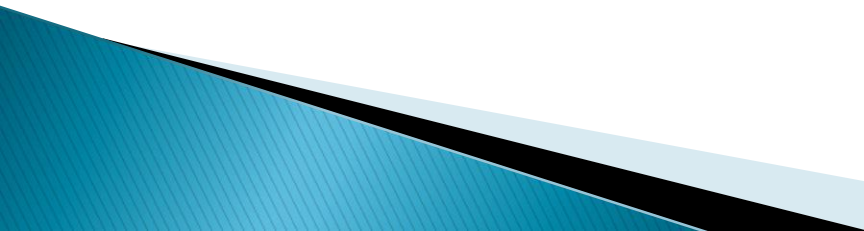
- ▶ 53 year old female educator (French, ecology)
- ▶ Abilities before injury: Driving, fine art work, reading and writing prolifically, computer and cell phone use, walking, teaching. No glasses.
- ▶ Attacked by an autistic adult from behind on June 9, 2017 **Unable to work ever since**
- ▶ Left eye was gouged and head was beaten till or possibly after she had lost consciousness
- ▶ Diagnoses from her MD post-incident were Concussion and PTSD
- ▶ She was sent to me by a friend
- ▶ I got approval from CSST(workman's comp) for a neuro-optometric examination \*

- ▶ Chief Complaints: photophobia, balance problems, vertigo; inability to drive, move her eyes to eye level or downgaze in order to wash dishes, read, write, paint, look at phone, computer screens; know where she is and where her body parts are; cognition; focus at near; migraine headaches...
  - ▶ First eye exam was March 20, 2018
  - ▶ She came in with dark glasses and holding onto the walls for support.
  - ▶ She could not sit behind the phoropter or use any form of glasses, ex: stereo glasses, plus lenses, tints or prisms...persisted throughout
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- ▶ Exam findings:
  - ▶ VA sc OD 20/25    Near OU 20/60
  - ▶            OS 20/25
  - ▶            OU 20/20
  - ▶ For each test her eyes watered and she gagged
  - ▶ Pupils were 5mm with little but equal reaction
  - ▶ Near Point of Convergence was 16 inches
  - ▶ Pursuits and saccades were impossible
  - ▶ Cover Test: ortho distance and near
  - ▶ After each test we had to stop and let her rest
  - ▶ Ocular Health appeared normal with direct ophthalmoscope and biomicroscope
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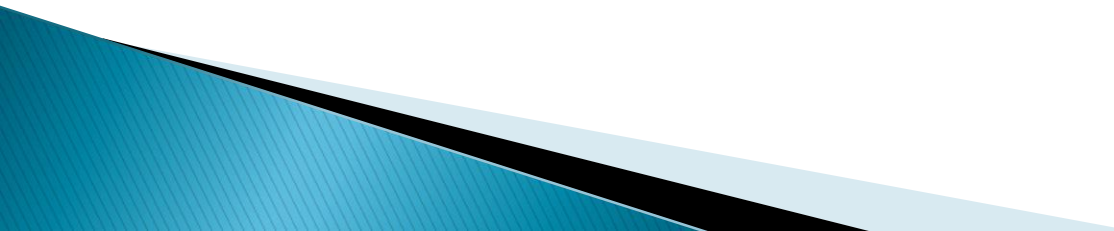
- ▶ Vision Therapy was begun. I wrote to CSST and she was approved for 8 sessions. \*\*
- ▶ March 20, 2018: Peripheral Tap, Peripheral walk, slow thumb-following side to side, up-down (difficult), all done with 3 deep breaths
- ▶ She was seen March 28, April 26, May 10, May 16, May 22, May 29, June 5 and June 12
- ▶ I gave her Oculomotility, Convergence and Accommodative activities
- ▶ Always began and ended with peripheral work as per teachings of DeAnn Fitzgerald, O.D.
- ▶ She did not make progress as expected for a concussion and by May 16 I concluded that she had had a traumatic brain injury

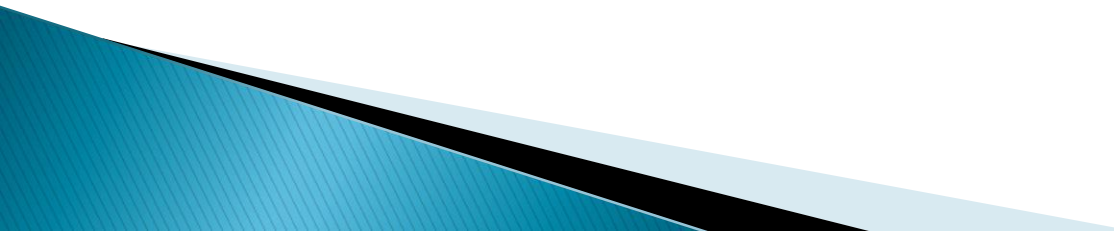
- ▶ At this point, she told me she was seeing a physical therapist who was doing visual work, too much too fast. Every time she saw the PT, she felt worse and had to rest for a couple of days to get back to a level of functioning.
  - ▶ She had a psychologist working with her on the PTSD. She was also going to an OT.
  - ▶ She was seeing her medical doctor. The medical doctor decided I was the leader of her “team” and let me set the pace for her visual treatments. The physical therapist was told to stop doing “eye exercises.”
  - ▶ I told her I couldn’t promise to get her back to where she was before, but I would try.
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- ▶ I started her back at crawling and rolling which were not easy for her to coordinate. She did many cross pattern activities: cross hip tap, cross knee tap, patty cake, and maccarena dance, bubble popping. She did atonic neck reflex, standing.
  - ▶ She did bilateral activities: Angels, chalkboard angels, chalkboard circles, clapping. Each was difficult and initiated a gagging reflex and tearing the first time she tried. The following session she was able to do it.
  - ▶ She did fixations, slowly lowering the targets, and was able to finally look down to wash a dish and make quick looks at her cellphone.
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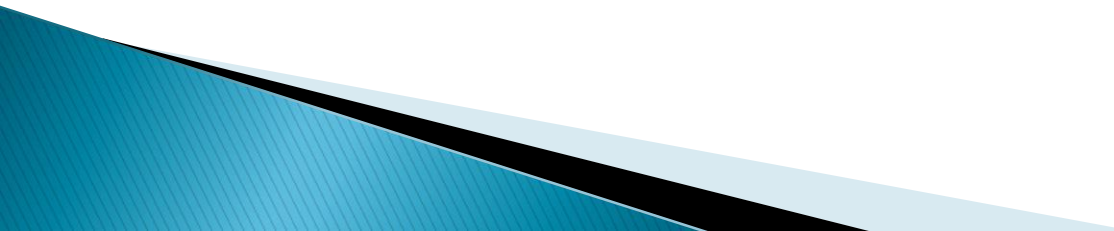
- ▶ I applied and received approval for 10 more sessions, explaining that I thought she had post TBI syndrome, not post concussion syndrome. \*\*\*
- ▶ She wanted weekly vision therapy because she felt she was finally improving
- ▶ She came in June 19, July 4, July 18, July 23, July 31, August 21, August 28, September 4, September 12, September 17.
- ▶ We did monocular accommodative work, convergence distance to intermediate, to near and back; head rotations, big swings, body alphabet, thumb rotations, walking around a (Marsden Ball) at rest, then while moving it.

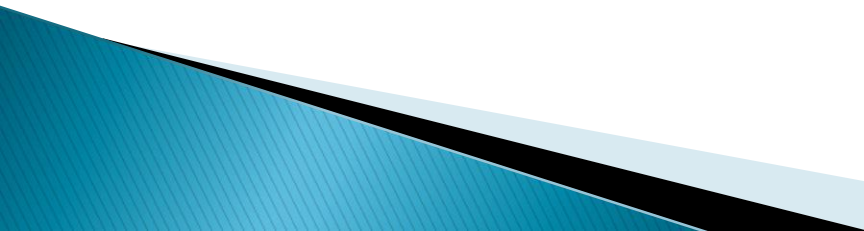


- ▶ During VT, she had a treatment from a PTSD/ reflex instructor (Primitive reflexes?) and finally could move her eyes downward.
  - ▶ We requested more sessions because many symptoms remained: movement in her visual field still caused dizziness, looking at close objects for any length of time was difficult (no glasses could be found to help,) writing and writing-like activities including art work was too uncomfortable and she had a feeling of disconnect between motor planning and actually moving different parts of her body including her eyes. Again, she was approved without limits set.
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- ▶ She was seen Oct 9,18,24,29, Nov 7,19,Dec4.
  - ▶ She continued to make slow, steady progress.
  - ▶ The activities added were more challenging. Some days she came in happy and ready to meet all the challenges and some days she came in feeling wiped out from other doctor appointments or just trying to live her life.
  - ▶ Her VA sc improved to 20/20 OD, OS, OU.
  - ▶ And then she complained of difficulty with falling snow. I asked about how she handled it last year and she said “Last year, I was a mess and everything didn’t work right.”
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- ▶ That meant that this year there were only specific things that bothered her and she was functioning better! But difficulty with falling snow in Montreal is a huge problem!
- ▶ Recently, she was seen by an orthopedic MD and an ophthalmologist who both told her MD that she was **fine physically, no damage!**
- ▶ The MD decided that everything was organically normal and that she needed a psychiatrist. CSST cut off all funding and she came in one last time, devastated.
- ▶ I wrote a last letter to the MD and CSST \*\*\*\* to explain why she needs more VT including NORA's "Vision Problems after Brain Injury."

- ▶ She informed me that she went to her doctor. He spent a long time doing ophthalmoscopy and she said that “burned” her eyes. The MD still doesn’t understand but was willing to ask for more help from CSST. She missed 2 Dec. appts while waiting to hear from CSST.
  - ▶ I had told her that I would continue in January regardless of what the CSST was going to do.
  - ▶ I just heard Monday that CSST is reinstating coverage for ALL therapies and she came in!
  - ▶ She had been depressed and had stopped all home therapies since I had last seen her. She was so happy that they have agreed to continue. And thanked me for helping in this.
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- ▶ She came in on January 14. Now her complaint is that she is having difficulty with far vision. She had been reading more over her break. She said she can read(!) but doesn't remember what she read. She has basically been at home.
  - ▶ I gave her more activities to do and will see her in 3 weeks. She is ready to put in the work again.
  - ▶ At this point, I would like to try to find some lenses that would help (She insists that she never needed glasses before the incident.)
  - ▶ And I am open to suggestions.
  - ▶ Thank you!
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- ▶ Re: Carolyna
- ▶ 26 January , 1965
- ▶ February 27, 2018

- ▶ To whom it may concern:

- ▶ Carolyna was assaulted on June 9, 2017. She suffered a concussion and PTSD, and the assailant gouged her left eye. She now has Post-Concussion Syndrome, including difficulty looking down, tracking, photophobia and focusing. She also has pain behind her eye.

- ▶ She would benefit from a full optometric evaluation and post concussion Vision Therapy. She is not covered for any services under Medicare. The evaluation costs \$90 and the Vision Therapy is \$90 per visit. She may need up to 8 vision therapy sessions.

- ▶ Are you able to authorize her to get this treatment under CSST?

- ▶ Sincerely,

- ▶ Margaret F. Ronis, O.D.

- ▶ Re: Carolyna
- ▶ Date of Birth: January 26, 1965
- ▶ June 12, 2018
- ▶
- ▶ To whom it may concern:
- ▶
- ▶ Carolyna was assaulted on June 9, 2017. She suffered a traumatic brain injury (TBI) and PTSD, and the assailant gouged her left eye. She now has Post TBI syndrome, including difficulty looking down, tracking, looking at objects close to her, changing focus, and also dizziness and photophobia. She also has sensitivity around her head and left eye.
- ▶
- ▶ She has been doing neuro-rehabilitative vision therapy with me since the end of March, 2018 (8 sessions.) When she started, all eye movements were difficult and looking below her horizontal midline was impossible. She had trouble with balance, needing to hold onto the walls. She was unable to coordinate anything requiring the use of both sides of her body together. As we have worked toward her recovery, she has been making slow and steady progress. Each time a new goal is introduced, Carolyna's eyes water profusely and she has to steady herself (lean against the wall.) By the time she comes for the next session, she is usually able to do that activity with more ease and with less eye watering.
- ▶
- ▶

- ▶ Carolyn has been doing activities that re-develop the use of and integration of both sides of the brain, using the visual system and proprioception. When I started, she was unable to do binocular (both eyes working together) activities. She could not sense where her hands or feet were. We went back to basics: crawling, clapping, and “angels in the snow”... She can fixate better and is beginning to be able to track (follow something moving slowly.) She still has trouble with spatial awareness and objects moving in space. We just started working on changing focus.
- ▶
- ▶ She still needs a lot more work and wants to continue with weekly Vision Therapy sessions. I originally thought she had only suffered from a concussion and had requested 8 sessions. She is more seriously affected than my original assessment. There is no way to know how many sessions she will need. As long as her progress continues, I am happy and willing to work with her.
- ▶
- ▶ Let me know if you need further information.
- ▶
- ▶ Sincerely,
- ▶
- ▶
- ▶ Margaret F. Ronis, O.D.
- ▶
- ▶



- ▶ **Re: Carolyna**
- ▶ **Date of Birth January 26, 1965**
- ▶ **October 11, 2018**

▶ To whom it may concern:

- ▶ Carolyna has Post TBI (traumatic brain injury) Syndrome. Please see my letter dated June 12, 2018. She has been making slow, steady progress doing neuro-rehabilitative vision therapy with me. She has achieved moving her eyes in different directions, being able to look at closer objects for short periods of time, and changing focus between far and intermediate distances and back to far. She no longer has to pick up her dishes to eye level to wash them or to look at her phone (she can now look in the down gaze position.)
- ▶ The areas where she still has difficulty is when there is movement in her visual field (causing dizziness,) looking at close objects for longer, writing and writing-like activities (including her art work,) and a feeling of disconnect between motor planning and actually moving different parts of her body including the eyes. Each time she tries to do more complex activities, her eyes water and she feels dizzy. We have to break down each activity into “baby steps” for her to be able to accomplish the goal. And then we move on to the next goal, etc.

- ▶ She still has a long way to go to get back to her pre-trauma capabilities. She wants to continue with weekly Vision Therapy sessions with me. I do not know how many more sessions she needs. As long as her progress continues, I am ready to work with her.
- ▶
- ▶ Let me know if you need further information.
- ▶
- ▶ Sincerely,
- ▶
- ▶
- ▶ Margaret F. Ronis, O.D.
- ▶

- ▶ **Re: Carolyna**
- ▶ **Date of Birth: January 26, 1965**
- ▶ **December 11, 2018**
- ▶
- ▶ **To whom it may concern:**
- ▶
- ▶ Carolyna has Post TBI (traumatic brain injury) Syndrome. Please see letters of June 12, 2018 and October 11, 2018. She had brain damage resulting from an attack by a client at work. The damage does not show up on a CT scan or mri, but it causes a disconnect between the eyes and the brain in visual processing. Please see the website of NORA, the Neuro-Optometric Rehabilitation Organization: [noravisionrehab.org](http://noravisionrehab.org). There are sections about Brain Injuries and Vision; and Common Vision Problems and Symptoms Following Brain Injury. Carolyna is still suffering from many symptoms.
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- ▶ She used to drive everywhere, do artwork, read and write prolifically, teach, work on a computer, use a cellphone, and had no headaches. The symptoms remaining are light sensitivity, migraine headaches; and dizziness in falling snow, with windshield wipers in the car, and any other movement in her periphery. She cannot yet read nor write very much nor do detailed artwork. There is some cognitive slowness (processing speed.) She has difficulty to use a cellphone or computer. She has difficulty with near focus and convergence. These were not problems for her before the attack. Her eyeballs were not damaged...but perception is not in the eyeballs. It goes through the eyeballs to the brain.

- ▶ In addition, the pupillary reactions are slow and incomplete. Her pupils do not constrict fully to light.
- ▶
- ▶ She has made slow steady progress in neuro-rehabilitative vision therapy with me. She has progressed to being able to get through space without holding onto the wall, she can move her eyes with control in all directions, she can change focus from far to intermediate and almost-near to intermediate and far distances, she can control where she is looking. She has re-developed her sense of peripheral vision. She can now write a little bit at a time. She can look at her cellphone with difficulty.
- ▶
- ▶ Independent of what the medical doctor said, I believe Carolyna needs more vision therapy sessions or she will be stuck at this stage for the rest of her life. And she will have to remain on disability rather than going back to work.
- ▶
- ▶ Please reconsider your decision about Carolyna's treatment. Please let me know if you need further information.
- ▶
- ▶ Sincerely,
- ▶ Margaret F. Ronis, O.D.