

# Vision, Perception, Structure, and Function

## An Interview with Dr. Sam Berne

By Gael Rosewood, Certified Advanced Rolfer™, Rolf Movement® Practitioner and Sam Berne, OD



Gael Rosewood



Sam Bern

**ABSTRACT** *Gael Rosewood, Rolfer, Rolf Movement Practitioner, and Continuum Movement teacher interviews Dr. Sam Berne, optometrist and so much more, on the relationship of eyes to structure, perception, and movement and his innovations in holistic eye care.*

**Gael Rosewood:** I'm excited to be introducing Sam Berne OD to the Rolwing® Structural Integration (SI) community. Sam has been a colleague of mine through the Continuum Movement community. We met at various Emily Conrad workshops and retreats. I became intrigued with his particular specialty as an eye doctor. I took a workshop with him some years ago and have had an interesting journey into exploring his various healing protocols. It shows me that how I see the world is, as Rolfers know, a perceptual habit. I have options, maybe options that I never saw before. First, Sam, would you like to introduce yourself in any way?

**Sam Berne:** Yes. I am an optometrist, but also much more than that. I've been in practice over thirty-five years, and I've

studied many different disciplines and consider myself a holistic practitioner. It's been an exciting journey, I've met amazing people along the way, and I'm happy to share what I know with your community.

**GR:** How were you drawn into optometry?

**SB:** Well, it actually started when I was a child. At about eight years old and I was diagnosed with a learning problem and my mom took me everywhere because I couldn't read. At an eye doctor's office I got a pair of nearsighted glasses. That didn't address my learning problem but I became a memorizer, that's how I got through school. My eyes kept getting progressively worse. After I graduated optometry school, I met a holistic eye doctor, Albert A. Shankman, OD, and went through his physical eye therapy



The eyes are a portal into our health.

program. He said two things to me: "Number one, the reason why you have a learning problem is you have a left eye that drifts out and you're not using your two eyes together." And second, "You can definitely reverse your prescription." So I went through a sixth-month program and I did both of those things. I dissolved my prescription 100% and I learned to use my two eyes together. I stopped seeing double, and I became a voracious reader. It inspired me to move into a track of helping people improve their vision instead of just looking for disease and using pharmaceutical drugs and surgery – that's the way most eye doctors are trained.

That started me on a very dynamic process where, although I've been out way ahead of the curve, luckily I've met other visionaries along the path. Along the way I studied various things. One was light and color therapy for the eyes, which can actually heal certain eye problems. And I developed programs in hospitals working with traumatic brain injury. When people have had some kind of a whiplash or head injury, they can have tremendous vision problems that either go undiagnosed or that are hard for eye doctors to treat, so I developed ways to help people heal their trauma. I've also worked with kids diagnosed along the autism to attention deficit disorder (ADD) spectrum. I ended up going to massage school and became a craniosacral therapist, and that opened up a whole world of somatic awareness.

Then about ten or eleven years ago I met Emily Conrad after teaching a workshop on vision improvement at her studio. Eventually I became a Continuum teacher studying under Emily. So, I have a lot of tools in my toolbox to help people improve their eyes and vision.

When we have an eye problem, there is usually a thread of a systemic, metabolic, energetic, postural reason for it. So instead of treating symptoms (what most eye doctors do), I try to find the cause and treat that. Then the eye problem tends to go away, and it also has an impact on the person's brain health and overall wellness. So that's in a nutshell where I started.

**GR:** That's an impressive list, say more.

**SB:** We could go through any eye condition and I could tell you how it would be one of those, just like you read the body and that gives you a scroll of history. I can tell a person's history by assessing what's going on with their eyes and vision. The eyes are a really amazing portal into our health, and recognizing that was a big *aha* for me.

**GR:** Does any example come to mind?

**SB:** There are many. But let's talk about astigmatism, which means the eye is shaped more like an egg instead of being spherical, that's the optical definition. I noticed that when I measured astigmatism, did an hour of craniosacral right after, and then measured again, the astigmatism would be much less or it would be gone. Then, going into more of a history, there would be things like scoliosis, or one leg longer than the other, or some body asymmetry. When I reduce

the astigmatism in the eye, and let's say the client is also going to a Rolfer, the Rolfer would call me and say, "Hey, I don't know what you did, but there's more movement, there's more possibility of symmetrical integration." So releasing the astigmatism released something in the posture.

This is why people who wear really strong lenses and are receiving bodywork [will get better results] if they can reduce their prescription or do something to take tension out of the eyes. Then the body will be more flexible and be able to go in the direction of what you're doing with Rolfing work, because there's room for a release, there's more harmony between the eyes and the body.

**GR:** That's very interesting. I want to ask you about several questions related to the culture at this time as well as some categories that reflect concerns people have for their eyes. I'm curious about this time of COVID-19, this time when we have suddenly been propelled, like it or not, into more screen time, often more Zoom time, et cetera. What are you noticing about people and their eyes in relationship to this electronic age and the new pressures?

**SB:** I'm noticing a marked and accelerated deterioration of vision that is so profound that it's overwhelming. If we rewind to our ancestors before screen time, all of our viewing was mostly in the distance. Our eyes are not built for this level of screen time. First, when we are confined to any kind of a screen, we're in a two-dimensional world and we're not in any kind of relaxation. We're actually going to the speed of the digital time, which creates more compression in the eye tissue, less oxygenation, less hydration. So more dry eye, more oxidative stress. A first level [of issue] is more inflammation, more blurred vision, and then a deeper level is this causing conditions like cataracts, macular degeneration, glaucoma. You might see a sudden unexplained deterioration in vision, for example, like somebody developing inflammation in their optic nerve.

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And then there's the blue light issue. Any digital device is emitting damaging blue light that's between 400 and 455 nanometers. That particular range of blue light is extremely damaging because it's a very chaotic frequency. As we absorb the light through our eyes, over time that chaotic waveform is damaging to the eye tissue. And [if the exposure is] after 6:00 PM, it tricks the pineal gland to shut off melatonin, so it affects our sleep cycle.

It's getting to the point where there's so many symptoms, so many problems, that I think we're going to need to make a course correction – otherwise our vision is going to be in such a bad state that we may not be able to get it back. So, it's pretty dramatic. With COVID-19, everybody is on their screens because of Zoom workshops and so on, and where we need to be is more in nature. More in negative ions, and in movement and breathing and hydration and sunlight – those kinds of things. It's a huge problem.

Unfortunately, a lot of the lens prescriptions that are given to people actually are making the eyes worse. When you get into bifocals, trifocals, you're splitting the vision into two or three parts and then asking the eyes to focus through a narrow window. That has a very negative affect on our nervous system, our endocrine system, our fluid body. So, there's ignorance out there in the lenses that are being prescribed, whether it's based on economics or something that your doctor has been indoctrinated with. So, there's some issues there.

**GR:** Very big challenges. Can you say more specifically how you see trifocals, bifocals, and specialized lenses affecting the nervous system, the fluid system, and the endocrine system?

**SB:** Yeah, the musculoskeletal system too. Think of it this way, the bigger the window you're able to look through, the more side vision or peripheral vision you can access. Accessing peripheral vision activates the parasympathetic nervous system. When you over focalize, so you're just tunneling in, a couple of things happen. First, your vestibular system shuts down. Second, because peripheral vision is reduced, you go into sympathetic nervous system overdrive – almost like hypervigilance – and this over focalization affects your orientation, your memory, and your depth perception. So the bigger the window you're able to look through, the more relaxed you're going to be. With multifocal lenses, you are eliminating that

potential of peripheral vision because you're forced into looking through this very narrow optical system, inducing more sympathetic response, more compression, more cortisol being produced. And there you go, you're just down a rabbit hole at this point.

**GR:** From a Rolfer's perspective, it sounds as if you're saying that with a more open peripheral vision, your connective tissues will follow suit. They will not be so compressed, so tight, and in general become more permeable. Is that right?

**SB:** Yes, 100% yes. And that's the key that I'm trying to convey to eye doctors. More peripheral vision leads to opening up circulation and nutrients absorption, it slows us down, puts us in a more receptive, intuitive, slow state.

So, suppose you and I were seeing the same client, and let's say this client was really near sighted. I would have them take the lenses off while being treated by you, and also give a very reduced lens prescription so that your treatment would penetrate more deeply into their system. If you're wearing a lens that's based on a 20/20 eye chart, at some level you're in a defensive posture, you're in a defensive strategy. That's not going to be in the eyes alone; it's going to translate to the whole body.

This is the bridge and the partnership that I do with osteopaths, Rolfers, craniosacral practitioners, structural integrators, Alexander Method and Feldenkrais Method® practitioners, and Continuum Movement teachers . . . they get it. But eye doctors, they're back in the fifteenth century here. It's time to move forward, because whatever prescription you get based on 20/20, you're locking your eyes down into a position, and once you lock them down, there's very little movement in changing your vision.

**GR:** Wow. Do you have any eye diseases that you want to speak to very specifically?

**SB:** Well, I think we should speak of the three main ones. The first is macular degeneration, which is the leading cause of blindness. The macula is the center

part of the retina. It makes up less than 1% of the retina real estate, but it's important for our detail and color vision. Because there is not a direct nutrient connection (blood supply going to the macula), it's vulnerable to oxidative stress and free radical damage. There are two types of macular degeneration; the dry kind where the macula dries out, and the wet kind where fluid builds up behind the macula. Either creates a distortion in the center part of your vision and affects your ability to see detail. So that's a very attention-grabbing situation. And there are some fabulous nutritional things, exercise things, and many different complementary therapies that can help reverse macular degeneration.

**GR:** What would be your advice to somebody with macular degeneration?

**SB:** I'll give the prescription, and of course it could vary based on the person's history and so on. Number one, it's very important to make sure you're getting carotenoids in your diet – through vegetables that are red, orange, yellow, and green pigmented. People know these as lutein and zeaxanthin. These are very important to protect the macula. If you're going to do a vitamin, you would do something like 16 milligrams of lutein and 4-6 milligrams of zeaxanthin daily. Then you would add a third carotenoid called astaxanthin, which is a marine carotenoid, so you can get that either from pink seafood or micro algae. As a supplement, you're looking at 6-12 milligrams a day of astaxanthin. In addition, you would want to make sure you're eating a high percentage of plant-based foods, getting enough probiotics, and reducing inflammation in the body – because any gut inflammation is going to affect the eyes. I would also wear blue-light-blocking filters if you're on any digital devices, because blue light definitely affects the macula.

And then you can consider some ancillary treatments like acupuncture, which works really well for macular problems. In traditional Oriental medicine, there are meridians that go right to the eye, and the organ of the liver is related to

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the eye. So working with a traditional Oriental medicine doctor can sometimes bring more energy to the macula. Those would be just some basic broad-brush things. If you did those, you would have a really good chance, at the very least, of neutralizing the deteriorating, and at best of reversing the condition.

**GR:** Wonderful. What condition do you want to talk about next?

**SB:** Cataracts. For most people, as they age, the lens of the eye starts to accumulate metabolic waste. That's kind of a normal aging change, and the standard approach is [a surgical intervention] when it gets bad enough; the surgeon just takes the lens out and puts in a plastic lens and you're good to go. It's a very high percentage of success surgery. But there are things that you can do in early-stage cataracts to either slow down or sometimes even reverse the condition, and there are a couple essential ingredients that are important for lens health.

The first is an antioxidant called glutathione, it's one of the master antioxidants in the body. There has been some research showing that people with low levels of glutathione have a higher risk of developing cataracts. I'd suggest daily supplementation at 240 mg per day. The second ingredient that's supportive for lens health is vitamin C. There was a study done in the UK that showed that people who ingested 1,000 milligrams daily of vitamin C had a 33% lower risk of developing cataracts. The third risk factor in cataracts is your glucose levels. So, if you eat sugar or have trouble metabolizing carbohydrates and sugars, if you're prediabetic, you have a higher risk of developing cataracts.

Now what's really interesting is there's eye drops called Oclumed on the market that can improve lens health. These are natural eye drops that actually contain glutathione and vitamin C. And then there's some nutritional things that you could do. Again, a plant-based, anti-inflammatory diet of low-glycemic-index foods, minimally processed foods. These would be some basic, broad-brush strokes that you could do to reduce cataracts. I've had hundreds of patients reduce cataracts just by changing their diet, doing some detoxification process, and reducing their stress levels.

**GR:** Great. And then you had one more.

**SB:** Yep. So this third one is a really interesting disease, it's a vascular disease

called glaucoma. It's called the silent thief because you don't know that you have it and it begins to reduce the peripheral vision, the visual field, because it starts to damage the optic nerve. It's a vascular disease, either the eye is not producing enough fluid or the fluid that's in the eye is not circulating properly. So this is a red flag for lymphatic health, connective-tissue health, this is up your alley as Rolfers. If you start improving your fluid health it can actually do things like bring eye pressure down. There have been studies that show that bouncing on a rebounder ten minutes a day can bring your eye pressure down. Glaucoma is very much related to stress, trauma (it could be head trauma). Also, heavy metal toxicity can mask as glaucoma and affect optic-nerve health.

Again, the lymphatic piece is really critical. So, there are things you can do to neutralize the glaucoma pattern, and in some cases even reverse it. The standard approach is pharmaceutical eye drops and eventually surgery. This is a condition where a lot of the complementary therapies I promote work very, very well at reducing optic-nerve damage and bringing the eye pressures back to normal.

**GR:** Interesting. We are well educated in Rolfing training to understand that how we put our world together proprioceptively affects our structural patterns and our functional habits. There is an assumption that when clients learn from their Rolfing process, they start to broaden how they are perceiving their sense of themselves and the world through their senses. So we hope to send them out in the world with new perceptual patterns. Now, if you reverse this and think about perceptual patterns as you know them from studying eyes, what can you say about our visual habits and the kinesphere – how you find those habits affecting people either structurally or functionally.

**SB:** I think we are very much in alignment here. If I speak from the eye point of view, the way we use our eyes functionally changes the structure of the eyes and has echoes into changing the structure, posture, and movement of the body. What I've observed is that when I can help people discover their habits, conditioning, and belief systems perceptually through their vision by giving them different challenges – I strongly challenge their vision to move out of the status quo – they start to understand how their functional habits

have created the structural defect. And once they realize that and are able to step into the new discovery, it starts to impact their orientation, their processing, their movement, their balance, and their decision-making. So we're probably doing similar things, but I'm working from the eyes into the body and you're working from the body into the perception of the eyes. There's no question that when we start using our eyes in a certain way, if it's the same pattern over and over again, eventually it's going to create some deterioration and disease.

My job is to interrupt that pattern and, again, there's a lot of different techniques I've developed visually that create obstacles for people. Of course, we do this in the therapeutic setting. One of my favorites is to give people either the opposite prescription to what they normally wear – which really throws them for a loop – or I give them a prismatic prescription that completely changes their orientation, their visual midline, their relationship of vision, vestibular, and proprioception states. They then have to find a new way of processing, and I keep interrupting that. Sometimes I put people into a lot of blur. Blur is one of those experiences that people usually don't like, because they feel they're out of control, or fear they're going to get injured – there's some association they made with blur. So when I put them into blur, they do whatever it takes to avoid it and they do that through the eyeball – to the point where the eye gives up because of the intense mental fear of being out of control. When that happens, the tension in the eyes releases so profoundly that the person's eyesight comes back to normal.

Emily Conrad, or one of the Continuum folks, I'm not sure who, said that 60% to 80% of body tension may be carried in the eyes. I don't know if it's that high, but think about how much tension people carry, and the eyes are one of those unrealized dead zones. When I do an eye exam, ask people to read the chart, and then I give them a relaxation lens, I say, "How do your eyes feel?" They have no idea. Even people who are in somatic practices. These are the people who should be in touch, but a lot of them say, "I have no idea what I feel in my eyes." It's part of the desensitization that we've all gone through, and [we need to begin to] connect on a somatic level with our eyes.

**GR:** Very interesting. I'm wondering if you have a choice anecdote about

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change that happened globally through somebody's life because their habitual patterns of seeing changed?

**SB:** I have a great case. An actress was referred to me by an osteopath. Her eye doctor prescribed one lens for distance so she could see in the distance and prescribed a second lens for near so she could read without reading glasses. Well, that created such disorientation and blurred vision that she ended up in the osteopath's office getting cranial work. My assessment was that the eye doctor corrected the right eye for distance and the left eye for near, but she was trying to use her near eye for distance and her distance eye for near – so there was a huge conflict mentally and somatically – and on top of that, it was splitting her eyes.

I got her in some reversed prescription exercises and initially she couldn't handle the blur. She got very dizzy and disoriented. I said, "Okay, go into the disorientation. Don't fight it." And after every session she would say, "My eyes feel so much more relaxed and I see more clearly." Fast forward three months, she came in today and said, "I feel great. I'm integrated – I would never go back to that monovision – and my osteopath is confirming based on what he is feeling. And it was a nightmare, I thought I was losing my mind." As a result, her creativity is taking off, her focus is taking off, her teaching is taking off. So that's one success story of many that illustrates the point you're talking about.

**GR:** That's a wonderful story. What about the people who have their vision changed through a surgery?

**SB:** You're talking about is LASIK surgery. Think of it this way, we want to blame

faulty vision on the eyeball. But it's not the eyeball's fault, it's the programming behind the eyes that causes the eyes to change. The surgery changes the superficial external prescription in the eye. So now you've got the programming, and then you've got the change in the eye, so it creates a mismatch. Of course the programming is a lot stronger than the surgical procedure, which is why, over time, the eyes revert back to where they were. And it's pretty devastating to people when they recognize that their programming is what's caused their eyes [to be this way] and that's what needs to change.

**GR:** This is such important information. Well, I'm going to open this up to you, Sam, to see what you would still like to say.

**SB:** I'll leave readers with three things. First, and we touched upon this, is that how we function with our eyes changes the structure of our eyes, so that if we can do some kind of physical therapy through our vision and become aware of the function, we can change the structure. There's no statute of limitations of age or genetics that interferes with this ability to heal. One of my sayings is we don't have a genetic destiny because our grandparents or great-grandparents had a certain condition.

The second point I would make is that if a person starts to feel they are being bullied into a certain procedure or a certain method of treatment, they should pause and seek out a more holistic perspective. You could begin to examine what are some other alternatives besides just doing drugs and surgery. On my website, [www.drsmamberne.com](http://www.drsmamberne.com), I have a lot of

free information. I've done hundreds of video blogs on different conditions and also different eye exercise protocols. I list ninety-day EyeClarity protocols for various conditions at <https://www.drsmamberne.com/category/eye-exercise/eye-exercise-protocols/> (you can open each protocol to get the specifics). I also teach classes online, you can find that on my website as well. I usually do a monthly, Saturday morning class, and then a retreat a couple times a year.

And then the third point that I would make is that you can change your eyes and vision at any age, even as you get older. You could probably speak to this too, through your healing work, that age is a number. There are some really amazing things that you can do to at least give people the tools to become better at self-regulating. This is how I bring Continuum into the vision work, teaching some very short 'dive' or sound bath and having people touch their eyes with their eyes closed . . . It's amazing healing, putting sound and touch in and around their eye tissue. It immediately enlightens and gives access to something much deeper. And it gives the permission to do that.

So those would be the main points. This is a field where I feel like I'm a pioneer, kind of out ahead of the curve.

**GR:** Are you finding a way to reproduce yourself yet?

**SB:** Not yet, but I'm sure that will come. Right now it's more about just connecting with people. I think that because of COVID-19 social media and the internet are really great ways to connect with people. There are a lot of channels to do that, and for

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those that are interested, they will find a way. But it's also why I love talking to people like you, because you're already there, you're just doing it from a different place. But we're doing similar things, and so those are the kind of folks I'm seeking out, that's how it'll disseminate into the mainstream. It's changing, it's happening, there's a movement going on. So those are the big points, and I'm excited about the future and what's going on, how people are responding.

**GR:** And you can work remotely with people?

**SB:** Yes, working remotely is very simple. Sometimes I'll have people send me their eye records, so I can review those and get a baseline on where we start. But then from that place, yes, we can do wonders from a distance.

**GR:** Thank you.

**SB:** I want to thank you for inviting me, I love Rolfing work. One of my favorite people is Jan Sultan, and here in Santa Fe we have lots of Rolfers. So I'm a firm believer in it. I went through that process and it gave me my body back after all the injuries I had had. So I love the work, I love how you've integrated it. I watched one of your videos for the Dr. Ida Rolf Institute® (DIRI; see <https://vimeo.com/471168958>) where you eloquently shared Ida Rolf's story and her vision, and how you met her. It's remarkable the people you've met over the years. And Emily Conrad, of course, as well. So onward we go.

**GR:** Onward we go, yes.

*Dr. Sam Berne has been in private practice in New Mexico for over thirty-five years working with patients to improve their vision and overall wellness through holistic methods. He holds a Bachelor of Science from Pennsylvania State University, Doctor of Optometry from Pennsylvania College, and did his postdoctoral work at the Gesell Institute in collaboration with the Yale Study Center. He is also a teacher, author, and researcher. He is known as a thought leader in the field of integrative-alternative vision*

*and health. He was on the faculty at the Esalen Institute, in Big Sur, California, where he taught the month-long Legacy Program and also weekend and five-day workshops using his methods to improve vision and wellness. He is a certified aromatherapist, craniosacral therapist, and an Authorized Continuum Movement Teacher. He hosts a weekly podcast called the EyeClarity Podcast, and also has a weekly Facebook Live show where he answers questions from his followers. Aside from his eye therapy protocols, he also has developed products and natural eye drops to help support vision and wellness. His website is [www.drsamberne.com](http://www.drsamberne.com).*

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*Note: Sam Berne photo ©Genevieve Russell.*

