

General Principles to Consider When Treating Chronic Illness

Analysis by [Dr. Joseph Mercola](#)

July 19, 2026

STORY AT-A-GLANCE

- › Dr. David Minkoff is a Florida-based integrative medicine physician who combines conventional training in infectious disease with 25+ years of experience in natural, functional, and biological medicine
- › Chronic illness is typically caused by some underlying cellular dysfunction, and two of the primary reasons for that are toxicity and/or poor gut health
- › Infected root canals and cavitations are also common causes of chronic health problems
- › Oxygen therapy stimulates your body to heal itself. You can stimulate joint cartilage to grow, strengthen your immune system, kill off pathogens, keep viral infections at bay, and much more
- › Alternative treatment modalities that can help facilitate healing where conventional medicine fails include prolotherapy, ozone therapy, prolozone (a combination of prolotherapy and ozone), hyperbarics, chelation, UVBI (ultraviolet blood irradiation), EBOO (extracorporeal blood oxygenation), photobiomodulation, and more

Editor's Note: This article is a reprint. It was originally published May 1, 2022.

Dr. David Minkoff is a pioneer in natural medicine with an active practice in Clearwater, Florida. In this interview, we dive deep into some of his best strategies to optimize your health and resolve common health challenges that conventional medicine is incapable of resolving.

Like me, he's passionate about exercise and has been an avid athlete since his youth. He has completed numerous Ironman competitions over the course of his athletic career.

"Most of my practice is chronically ill people, but I have worked with some very high-end athletes, and I can really help them because I understand what kind of metabolism you need to do to be able to perform consistently at a high level," he says. "I've sort of been in the laboratory myself, and that's been very helpful."

Minkoff's Journey

Minkoff has had a rather eclectic medical training, including adult and pediatric infectious disease. In 1995, his wife, a registered nurse, took him to a series of Jeffrey Bland lectures, a pioneer in nutritional biochemistry, and the rest, as they say, is history.

"My lights just went on," Minkoff says. "It was just like, 'Holy smokes, this guy is smart, and it makes sense, and I want to learn this.' So, I started going to courses. I went to ACAM [American College for Advancement in Medicine] and learned how to do chelation."

After that, he trained with Dr. Dietrich Klinghardt, a pioneering physician in alternative medicine and Lyme disease specialist; Dr. Yoshiaki Omura, a general practitioner, cardiologist, and president of the International College of Acupuncture and Electro-Therapeutics; and Dr. Thomas Rau, a Swiss doctor specializing in biological medicine.

"As I got into it, I just sought out the best people that I could find to help me learn how I could do this better," Minkoff says. "That's been 25 years. So, I left the emergency room in 2002, and we've been going gang busters since then."

We have a very big practice now, and it's so much fun because there are so many new ways to help people get better that actually solve the problem with their bodies.

... If you have a chronic illness — high blood pressure, high cholesterol, rheumatoid arthritis, Parkinson's disease — the repertoire of standard medicine is not very good. They might help you with symptoms, which is fine for a while, but you are headed toward an endpoint, which isn't going to be what you want.

We have seven hyperbaric chambers. We've been doing it for years. It's a wonderful treatment ... We've been doing methylene blue for about five years ... Then, I learned about intranasal NAD — fascinating. The field is exploding with amazing people who are coming up with things that help people and have practically zero downside.”

2 Key Root Causes

Chronic illness is typically caused by some underlying cellular dysfunction, and two of the primary reasons for that are toxicity and/or poor gut health. Minkoff explains:

“Half the problem is things in the body that shouldn't be there, and the other half is things missing from the body that should be there. In some cases, there's mechanical stuff.

We need chiropractors, acupuncturists, massage therapists or things like this because there's a joint out of place, or their cervical vertebrae are out of place. Sometimes they might even need surgical intervention.

But the big two are, you're toxic and you're depleted. My approach to people then is: What are those things, and then, what is the priority or the order of dealing with those things?”

When it comes to detoxification, many things can go wrong, so it needs to be done under the supervision of a skilled practitioner. The use of DMPS, for example, can be very rough on your kidneys, and if your body is not capable of excreting the toxins, releasing them from the tissues where they're trapped will make you far worse rather than better.

Making a Diagnosis

When Minkoff sees a new patient, he has them fill out an extensive and detailed medical history, including dental history. Then, he performs a detailed physical exam, followed by autonomic response testing, which allows him to identify various triggers, such as toxins and infections.

"The body is so sophisticated that it will give you a sort of readout of 'Here's my priority levels. Do the root canals first. Handle the cavitations. Oh, yes, there's a parasite there. There's autoimmune there. I've got chronic Epstein Barr virus or herpes Type 6,'" Minkoff explains.

Autonomic response testing will also identify specific pathogens that are causing problems. In the interview, Minkoff gives a number of examples of patients whose health problems were resolved once the specific pathogen was identified and treated.

“With oxygen, you can stimulate a body to heal. You can stimulate a joint cartilage to grow. You can stimulate a tendon to strengthen and you can stimulate an immune system to get stronger. You can kill off bugs, Lyme, and put viruses at bay. It's just a massive game changer. ~ Dr. David Minkoff”

Oftentimes, an infected root canal is found to be the offender. Minkoff has a biological dentist nearby. If a dental problem is suspected, he'll send the patient there for a three-dimensional cone beam CT scan, which can clearly identify any problem areas that aren't visible using a two-dimensional X-ray. Another really helpful diagnostic is darkfield blood analysis (aka, live-cell microscopy), which Minkoff learned to use under Rau.

"I find that it's very helpful because sick people have bad-looking blood," he says. "Their physical examination is often fine, their reflexes are fine, their heart sounds fine and their liver and kidney are fine [but they feel terrible] ... We throw

the blood up on there and look at it and we're like, 'Holy smokes.' There are bio-films all over, there's fibrin deposits and there's organisms ...

Two months later, 'Hey, look at this blood. This blood's looking better.' And two months later, 'This blood is really looking normal' ... That's a complete picture where we are restoring healthy physiology to this person and that's what health is."

Available Treatment Modalities

When it comes to treatment, Minkoff has a number of interesting modalities at his disposal, including prolotherapy, ozone therapy, prolozone (a combination of prolotherapy and ozone), hyperbarics, chelation, UVBI (ultraviolet blood irradiation), EBOO (extracorporeal blood oxygenation), photobiomodulation, and much more.

Minkoff also offers VSELs [very small embryonic like] stem cell treatment, and it too has potent effects. Minkoff uses it himself and attributes gaining 7 pounds of lean body mass without change in his training to VSELs. He was trained in the use of VSELs by Dr. Todd Ovokaitys in San Diego.

Dr. Frank Shallenberger is the physician who trained him in ozone administration. Minkoff and I have both spoken at Dr. Shallenberger's ozone certification courses. If you know any clinicians interested in this modality, encourage them to look into his training programs, which are designed for medical professionals.

Benefits of Extracorporeal Oxygen and Ozone (EBOO) Therapy

EBOO is a potent way to administer ozone. It is even more effective than 10 pass ozone, but most people have to start slowly and work their way up to it. After becoming fascinated with this treatment, I encouraged Tom Lowe to make the units available commercially in the U.S. Minkoff explains:

"EBOO is a way to deliver oxygen and ozone to the body in a setup that's like dialysis. One IV goes into one arm, it goes through a machine that has a pump, so it can pull the blood out of the body. It goes through a system where the blood is exposed to oxygen in very high concentrations and ozone in low concentrations, and then it's recycled back to the body.

Some of the new machines also expose the blood to ultraviolet light. For about an hour, the blood circulates through this machine and is highly oxygenated. It isn't really filtered like dialysis would be, but it's exposed to this high oxygen concentration.

And — I don't exactly understand how it happens — but there is a runoff container where if you are really sick and toxic, you get a lot of this runoff collected in this container. Sometimes it's foamy and yellow. Our record is 2,000 CCs of this foamy liquid in a really sick person ..."

Sauna therapy is another excellent intervention with powerful therapeutic benefits. We didn't get a chance to dive deep into sauna treatment but I have published an in-depth deep dive on saunas with specific recommendations on how to identify and/or build one of the best saunas in the world — a therapy I believe most people can benefit from.

How to Raise NAD Naturally

If you don't have access to IV NAD treatment or can't afford it, there are three ways to raise your NAD level naturally: calorie restriction (or time-restricted eating, which achieves the same thing, but is safer), aggressive exercise, and sauna therapy.

If you do those three things, you'll activate NAMPT, which is a precursor to NAD. You could then use low-dose niacinamide (not niacin). An ideal dose is around 50 mg, three times a day. This will give you the raw material your body needs to produce NAMPT. I did an excellent [interview with molecular biologist Nichola Conlon](#) on this topic which you can find on my Substack.

“I put a lot of people with mitochondrial issues on [niacinamide], and I found that it's helpful,” Minkoff says. Niacinamide is also extremely cost-effective. It'll run you about 25 cents a month, whereas other NAD precursors such as NMN can cost you \$100 a month or more.

Plasmalogen and Iron Testing

Minkoff also uses a lipid test developed by lipid biochemist Dayan Goodenowe, author of “Breaking Alzheimer's.” “I've learned a ton from him, and we do his test on everybody,” Minkoff says.

“He's got a lab now that can measure levels of plasmalogens. They're very integral pieces of cell membranes, and he's got some very nice data about people with APOE4 on a track of memory loss.”

Patients with low plasmalogen levels can be given supplements such as fossil lipids to prevent further deterioration of their neurological function. Minkoff also measures ferritin and iron binding on all patients, and if their hemoglobin is high, he prescribes blood donation to lower their stored iron. Stored iron is incredibly destructive, as it causes oxidative stress, and is a commonly overlooked factor in deteriorating health.

Basic Health Guidance

While getting a full workup is the best way forward if you have a chronic health problem, three basic recommendations that can improve your health include:

- **Cleaning up your diet** — Focus on whole organic foods, and avoid any and all processed foods, including restaurant fare.
- **Optimize your sleep** — A sleep tracker can be very useful to ensure you're getting good sleep.

- **Getting regular exercise** — While cardio is important, strength training should be at the top of your list, especially as you get older, as having muscle mass optimizes you for longevity and reduces your risk of insulin resistance and diabetes.