

Rewiring Calm: A Regulation Program

*A path to nervous-system regulation
developed for adults with autism — and the people who love
them.*

NeuroOptimal® Neurofeedback • High-Dose Psilocybin
Family-Centered Care • Nervous-System Regulation

Program Document — April 2026

1. What This Program Is

This is a program for adults with autism who live with significant anxiety, trauma-related distress, sensory overwhelm, or chronic nervous-system dysregulation—and for the family members who love and support them.

The program has three phases: twelve weeks of neurofeedback brain training using the NeurOptimal® system; a single high-dose psilocybin session under medical supervision, delivered in a nature-based retreat setting; and a two-week integration period that follows best practices from the psychedelic-assisted therapy field.

Family members participate alongside the individual with autism. Parents, siblings, and caretakers complete their own neurofeedback training and go through their own high-dose psilocybin session two weeks before the person they support. This is central to how the program works: family members can only support the individual with autism through the experience if they have already walked that path themselves.

The program begins with a small group of participants drawn from close community and expands from there. As we learn, refine, and document outcomes, our intention is to open this program to as many families as possible. Our focus is not research. Our focus is impact.

2. Why This Matters

Many adults with autism live with persistent anxiety, sensory overload, trauma-related stress, and nervous-system instability. These experiences significantly reduce quality of life and constrain the expression of strengths, relationships, and independence that are otherwise available.

Conventional approaches—cognitive behavioral therapy, medication, behavioral support—often fail to address the underlying nervous-system dysregulation that drives these patterns. Many individuals with autism report that standard therapies feel misaligned with their sensory and processing profiles, leading to poor engagement or limited benefit.

This program is not designed to change identity or “treat autism.” It is designed to reduce the burden of co-occurring dysregulation, anxiety, and trauma—conditions that are modifiable. The goal is nervous-system regulation, not neurotype change.

3. How the Program Works

Phase One: NeurOptimal® Neurofeedback (Weeks 1-12)

NeurOptimal® is a fully automated, non-invasive neurofeedback system developed over 25+ years by the Zengar Institute. Unlike traditional neurofeedback, it requires no diagnosis, no practitioner-designed protocols, and no conscious effort from the participant.

How it works: Sensors on the scalp detect brain electrical activity. The software monitors this activity 256 times per second. When it detects a sudden shift—a moment of cortical turbulence—it creates a tiny interruption in the music the participant is listening to. The brain notices this interruption, recognizes something in its own activity triggered it, and begins to self-correct. Over repeated sessions, the brain learns to organize itself more flexibly and stably.

Who does neurofeedback: Both the individual with autism and their participating family members complete neurofeedback training concurrently over the same twelve-week window. Family members ideally train at the same session frequency as the individual, though exact matching is not required. Shared participation means family members arrive at the psilocybin phase already familiar with what nervous-system regulation feels like in their own bodies.

Why NeurOptimal® suits this program: Sessions are passive (just sit and listen to music), require no verbal interaction or sustained attention, are non-invasive (no stimulation, no frequency pushing), and can be done at home in a comfortable, low-stimulation environment.

Session schedule: Minimum two sessions per week for twelve weeks (approximately 24–36 sessions total). Each session lasts about 33 minutes.

Phase Two: Retreat Weekend and High-Dose Psilocybin

The psilocybin phase is structured as a two-day retreat in a dedicated, nature-based setting. The environment itself is part of the medicine: quiet, grounded, and away from the noise of daily life.

Day 1 — Dress Rehearsal: Participants spend the day in the exact room where the high-dose session will occur, under the effects of a lower but still perceptual dose of psilocybin. The purpose of this day is to build familiarity with the space, the people, the sounds, and the textures—removing the unfamiliarity that can amplify fear or anxiety during the high-dose experience. By the end of Day 1, the room is no longer new. The medicine is no longer a mystery.

Day 2 — High-Dose Session: A single, medically supervised high-dose psilocybin session in the now-familiar space. Duration is approximately 6–8 hours. Participants are continuously supported by experienced clinical staff, with a clear emergency response plan in place.

Family first, individual two weeks later: Family members complete their retreat weekend immediately after finishing neurofeedback training. The individual with autism waits two weeks—a pause that gives the family time to land, stabilize, and absorb their own experience before the individual goes through theirs. By the time the individual arrives at the retreat, the people supporting them already know, firsthand, what they are walking into. This changes everything about the quality of support that is possible.

Psilocybin acts through serotonin 5-HT_{2A} receptor pathways and has been shown to temporarily loosen entrenched neural patterns and support neuroplasticity. Surveys of adults with autism who have had psychedelic experiences report substantial reductions in psychological distress and social anxiety attributed to impactful experiences.

Phase Three: Integration (Two Weeks Following Each High-Dose Session)

Integration is not an afterthought to the psilocybin experience—it is where most of the durable benefit is realized. The psychedelic experience opens a window of enhanced neuroplasticity; integration is the structured practice of turning insights and shifts from that window into lasting change in daily life.

What the research tells us: Psilocybin-assisted psychotherapy consistently structures treatment around three phases—preparation, dosing, and integration. Published protocols and systematic reviews (Bathje et al. 2022; Gorman et al. 2021; Slosower et al. 2020; Watts and Luoma 2020) describe integration as the critical work of meaning-making, insight application, behavioral change, and the processing of difficult material that may surface.

What integration looks like in this program: For two weeks following the high-dose session, each participant works closely with the program team through structured integration sessions. Family members and individuals each have their own integration process, conducted separately and at a pace that suits them.

Integration practices include:

- Facilitated conversations to pull together the narrative of the experience, distill key insights, and connect them to the participant's values and goals (the Accept-Connect-Embody framework developed by Watts and Luoma).

- Journaling and creative expression to externalize and process emotional material that is difficult to put into words.
 - Mindfulness and somatic practices to stabilize the nervous system and reinforce new patterns of regulation.
 - Validation and compassionate engagement with any difficult or frightening content that surfaced during the experience.
 - Behavioral change planning: identifying specific, concrete changes the participant wants to carry forward, and building the scaffolding to support those changes.
 - Monitoring for adverse effects, including increased distress that sometimes follows a psychedelic experience as avoided material comes into awareness.
 - Shared integration moments for the family and individual together, where appropriate and consented, to align the meaning of what everyone experienced.
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4. Safety and Trauma-Informed Design

Everything in this program is delivered through a trauma-informed, regulation-first framework. This is non-negotiable:

- Careful intake with each participant (individual and family member), including current mental health, medication, trauma history, and medical contraindications.
 - Gradual pacing with flexibility to adjust session frequency based on individual response.
 - Predictable structure and clear communication at every stage—especially for individuals with autism, for whom predictability is itself a safety mechanism.
 - Ongoing consent, revisited at each phase transition.
 - Close monitoring for overstimulation, anxiety escalation, shutdown, or dissociation.
 - Experienced medical supervision during the dress rehearsal and high-dose sessions, with a clear emergency response plan.
 - Structured integration in the two weeks following the high-dose session.
 - Family-member pre-participation is itself a core safety feature: the individual with autism is supported through the psilocybin experience and integration by people who have themselves just done it.
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5. Who Participates

Each participant unit consists of the individual with autism and at least one participating family member (parent, sibling, caretaker, or close family-role supporter). Criteria for the individual with autism:

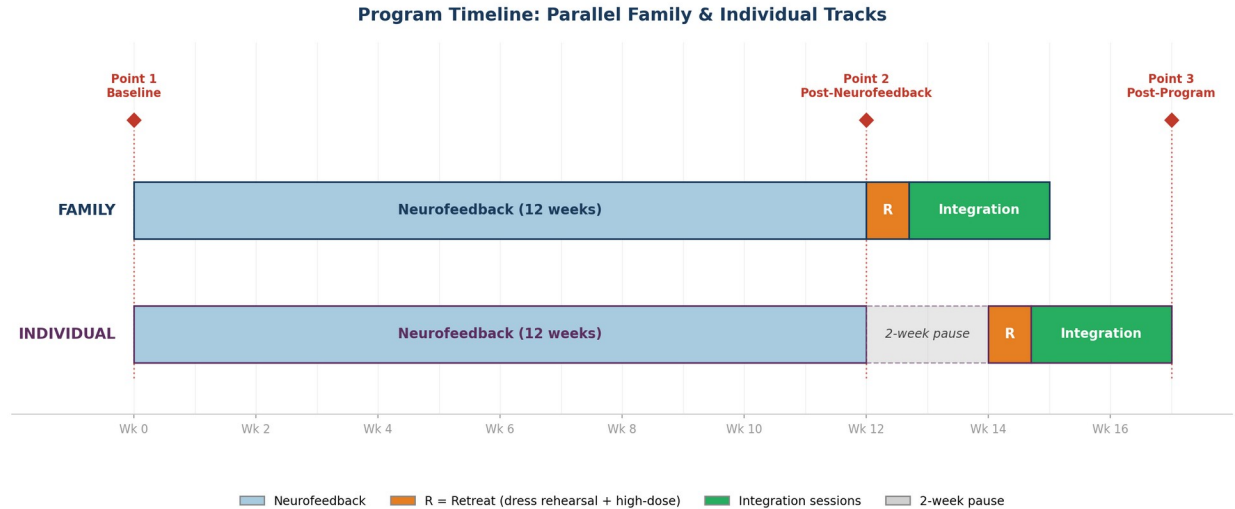
- Self-identified, family-identified, or clinically identified as autistic. Formal diagnosis is not required.
- Experiences clinically meaningful anxiety, trauma-related burden, sensory dysregulation, or nervous-system instability.
- Age 18 or older.
- Provides informed consent personally, or has consent provided by a parent or guardian holding medical power of attorney.
- No active psychotic disorder, no active suicidality, and no medical contraindications for psilocybin.
- Willing to participate in all program phases, including measurement and video documentation.

Criteria for participating family members:

- Adult (18+) in a close family or caretaker role with the individual.
- Committed to completing neurofeedback alongside the individual and undergoing the retreat weekend two weeks prior.
- No active psychotic disorder, no active suicidality, and no medical contraindications for psilocybin.
- Willing to participate in integration and documentation.

6. Timeline and Measurement

The program runs approximately 17 weeks. Family members and individuals travel on parallel tracks, overlapping fully during neurofeedback and separating by two weeks at the retreat:



Progress is measured at three points:

Point 1 – Baseline (before anything begins)

Point 2 – Post-Neurofeedback (end of Week 12, before the retreat)

Point 3 – Post-Program (after the individual’s integration is complete)

How We Measure

Quantitative – NeurOptimal® session data: The NeurOptimal® system generates continuous logs of brain electrical activity across every session. This produces a session-by-session trajectory of nervous-system change for both the individual and participating family members over the twelve-week training phase.

Structured framework – the ATEC: We use the Autism Treatment Evaluation Checklist (ATEC), developed at the Autism Research Institute by Dr. Bernard Rimland and Dr. Stephen Edelson. The ATEC is a 77-item caregiver-completed instrument designed specifically to measure change in response to interventions—not to diagnose. It covers four domains: speech/language/communication, sociability, sensory/cognitive awareness, and health/physical/behavior. Over a million ATECs have been completed worldwide. We administer the ATEC at all three measurement points for the individual with autism.

Qualitative – video documentation: Individuals and family members are recorded before, during, and after the program (with full consent). Video captures what numbers cannot: how someone carries themselves, how they speak about their experience, how family members describe what they see. Video testimonials at Points 2 and 3 are central to how we will communicate this program’s impact to other families.

7. How We Document Progress

Documentation serves two purposes: it shows participants and their families what is changing in real time, and it shows other families whether this program might be right for them.

- **ATEC scores** at each of the three measurement points, tracked over time and presented as individual progress charts.
- **NeuroOptimal® session logs** across the full twelve-week training phase, for both the individual and participating family members.
- **Participant and family journals** capturing subjective experience in each person's own words, including weekly check-ins during integration.
- **Video documentation** before, during, and after the program—individuals and family members describing what they experienced, in their own voice.
- **Retreat documentation** of the dress rehearsal and high-dose sessions (with careful consent about what is recorded and what stays private).
- **Program learnings:** what worked, what we adjusted, and what we are carrying forward into future cohorts.

8. Legal and Cultural Context

The landscape for psilocybin access is moving rapidly. On April 18, 2026, the White House issued an executive order directing the FDA to accelerate review of psychedelic therapies, establishing a pathway under the Right to Try Act for eligible patients to access investigational psychedelic drugs under FDA review, allocating \$50 million through ARPA-H to match state investments in psychedelic research, and directing post-Phase 3 rescheduling reviews. This follows Oregon's established regulated psilocybin services program and a broader wave of state-level and federal momentum.

We are aware of the legal landscape surrounding these compounds and operate with appropriate care. At the same time, we believe the momentum behind psychedelic access—scientific, cultural, and now federal—is sufficient that this program does not need to wait for every regulatory detail to be settled before helping families who need help now.

All participants are adults (18+) who either provide their own informed consent or are consented for by a parent or guardian holding medical power of attorney.

Consent explicitly addresses the investigational nature of psilocybin, known risks, and the right to withdraw at any point. NeurOptimal® is a general wellness device; it is not a medical treatment or diagnostic tool.

9. What Comes Next

This program exists to help as many individuals with autism and their families as we can reach. Our goals for the period ahead:

- **Complete the first cohort** and document what individuals and their families experience.
- **Refine the program** based on what we learn—protocol adjustments, pacing, retreat design, integration practices.
- **Expand access** to additional cohorts, prioritizing families who have been underserved by conventional care.
- **Build a network of trained facilitators** who can deliver the program with fidelity in other communities.
- **Share what we learn** through video, written stories, and family-to-family connection—so that other families can decide whether this is right for them.
- **Invite partnership** from clinicians, funders, and families who want to help us reach more people.

The measure of success is not a published paper. It is whether the people we serve come out of this program with less anxiety, more regulation, better days, and stronger relationships—and whether we can deliver that to the next family, and the next.

Supporting Literature and Resources

Policy and Cultural Momentum

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