MCP SERVER | NO CODE | CLOUD HOSTED

Contrast Therapy Protocol Designer MCP

Build precise thermal sessions for physical recovery and resilience.

Contrast Therapy Protocol Designer MCP lets your AI client build structured thermal sessions. You can generate complete protocols for recovery, circulation, or resilience, check temperature safety, and calculate exact timing for every heat and cold cycle.

A+ Quality Score 100/100

thermal | recovery | physiology | contrast-therapy | wellness

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vinkius.com/en/ai-agent-connect/contrast-therapy-protocol-designer

SCAN TO VIEW

The connectivity layer between AI and the world's software.

Vinkius sits between AI and every application. All communication passes through Vinkius Cloud via the Model Context Protocol (MCP) — with governance, observability, and security at every layer.

Your AI Connections Run Through Vinkius Cloud

The world's largest managed MCP catalog

Vinkius is the connectivity layer where AI connects to the software your business already runs. We handle the hosting, the security, the credentials, the uptime — you get agents that actually do things.

We operate the world's largest managed MCP catalog. Major SaaS platforms, CRMs, databases, and cloud providers — running, monitored, production-ready. This MCP server is hosted and maintained by the Vinkius Cloud for AI Agents.

> *The agent doesn't manage credentials, doesn't manage uptime, doesn't manage security. Vinkius does.*
>
> — Architecture principle

Four Pillars of the Vinkius Runtime

01 — Security by design

Credentials stay encrypted at rest via AES-256. The AI agent never touches raw keys — they're injected into a sandboxed V8 isolate at runtime. Actions are logged, and connections have an emergency kill switch.

02 — Built on MCP Fusion

This MCP server was built with **MCP Fusion**, the open-source framework (Apache 2.0) that powers the entire Vinkius catalog. Schema-as-firewall strips undeclared fields, compiled PII redaction runs at zero overhead, and cryptographic lockfiles produce git-diffable audit trails.

03 — Deterministic observability

Eight immutable metrics per endpoint: request volume, p95 latency, error rate, active connections, cost attribution. A live payload feed logs every tool call with mutation detection.

04 — Autonomous operations

Servers are deployed, monitored, and patched autonomously. New capabilities and security patches ship weekly. Zero-downtime deployments ensure continuous availability across all managed MCP servers.

AES-256	Ed25519	24h TTL	V8 Isolate
Encryption at rest	PKI vault signatures	Ephemeral session keys	Sandboxed execution

One Token. Instant Access.

Every MCP server on Vinkius is accessed through a **Connection Token**. Tokens are generated in the cloud dashboard and produce a unique MCP endpoint URL. Paste this URL into any MCP-compatible client — no SDK required.

A single token can serve **multiple AI clients simultaneously**, or you can issue separate tokens per client for granular access control. Each token tracks its own request count, last activity timestamp, and can be individually enabled or revoked.

MCP ENDPOINT

```
https://edge.vinkius.com/{token}/mcp
```

Claude · Cursor · VS Code · Windsurf · Grok · Gemini

Security Is the Architecture

Security in Vinkius is not a feature — it's the foundation of the runtime. The gateway enforces multiple independent protection layers between AI agents and third-party APIs.

01 — Ed25519 PKI Vault

Every workspace has an Ed25519 Master Key. Session keys are generated ephemerally (24h TTL) and signed by the Master Key. Credentials never leave the vault boundary.

02 — V8 Isolate Sandboxing

Tool code runs inside isolated-vm V8 isolates with 64 MB memory caps and per-request timeouts. No filesystem access, no network access except through the SSRF-guarded fetch bridge.

03 — SSRF Guard

All outbound HTTP requests are DNS-resolved and validated before execution. Private IP ranges (10.x, 172.16-31.x, 192.168.x, AWS metadata 169.254.x) are blocked at the network layer.

04 — DLP & PII Redaction

A ResponseGuard pipeline intercepts every tool response. Configurable redaction patterns strip sensitive fields (emails, SSNs, card numbers) before data reaches the AI agent.

05 — Cryptographic Audit Trail

Every request is signed into a SHA-256 hash chain with Ed25519 signatures. Events form a tamper-proof, SIEM-exportable forensic record.

06 — Honeytoken Trap System

Phantom credentials are injected into isolated environments. If a honeytoken is used outside Vinkius infrastructure, the server is quarantined instantly.

Emergency Kill Switch

EU AI Act Art. 14(1) Compliant

The kill switch is an **emergency halt** mechanism — not a simple toggle. When triggered, it executes three actions atomically:

01 — Server deactivated

The MCP server is immediately taken offline across the entire cluster.

02 — All tokens revoked

Every connection token is invalidated. Total lockout — reconnection blocked until new tokens are issued.

03 — WebSocket connections killed

Active connections terminated via Redis pubsub broadcast. Propagates to every runtime node in the cluster.

Full Visibility. Zero Guesswork.

The Vinkius cloud dashboard includes a full MCP Governance suite — real-time analytics and security controls for production AI operations.

Control Plane

KPI dashboard with request volume, latency, success rate, token consumption, and AI-generated operational briefings.

Agent Activity

Which AI clients are connecting, how often, and what they're doing — real-time session tracking.

FinOps

Cost tracking per tool, payload compression savings, budget optimization signals, and consumption trends.

Tool Health

Slowest and most error-prone tools, with actionable root-cause insights and performance baselines.

Firewall & DLP

PII redaction activity, sensitive data protection counters, and security event timeline.

Incident Log

Error trends, failure rates, status-code breakdowns, and forensic audit trail access.

> Get started at **cloud.vinkius.com** — connect your AI agent in under 60 seconds.

Contrast Therapy Protocol Designer MCP

4 tools available
Cloud-hosted on Vinkius

This MCP gives your AI agent the ability to design physiological responses through alternating thermal stressors. Instead of guessing how long to stay in a sauna or how cold a plunge should be, you can use this tool to build structured, goal-oriented sessions. Whether you are focusing on circulatory health, physical recovery, or building nervous system resilience, the MCP handles the math and the safety checks. You can define your objectives, and your agent will output a complete plan with specific temperatures and durations. It also helps you understand the physical sensation you should expect from a specific intensity level, making it easier to plan sessions that match your current capability.

Core Capabilities

01 — Protocol Generation

Your agent uses this to build full thermal sequences based on recovery or resilience goals.

02 — Safety Verification

The AI checks your temperature targets against physiological safety limits.

03 — Timing Calculations

Your agent calculates the exact duration and ratios for each heat and cold cycle.

04 — Experience Summaries

The AI describes the qualitative physical impact of a planned session.

One Click on Vinkius — From Prompt to Execution

Available at **vinkius.com/en/ai-agent-connect/contrast-therapy-protocol-designer** — connect your AI agent in three steps.

01 Connect your preferred MCP-compatible client to the Vinkius platform.

02 Tell your agent your goal, such as recovery or resilience.

03 The agent uses the MCP to calculate timing, safety, and session impact.

04 Receive a structured, ready-to-use thermal protocol.

Connect your AI client to Vinkius and start designing protocols immediately.

Built For

This MCP is built for anyone managing physiological stress through thermal exposure.

Athletic Trainers

They hand off recovery planning to the AI to ensure precise timing for athletes.

Wellness Coaches

They use the tool to design structured resilience protocols for clients.

Biohackers

They use the safety and metric tools to experiment with thermal stressors safely.

What Changes When You Connect

01 Removes the guesswork from thermal timing and ratios.

02 Flags dangerous temperature deltas before you start a session.

03 Translates technical protocols into expected physical sensations.

04 Standardizes session structures for consistent physiological responses.

Real-World Applications

Post-Workout Recovery

Design a specific sequence of heat and cold to manage inflammation after training.

Nervous System Resilience

Build high-intensity protocols to improve mental toughness and adaptation.

Circulatory Health

Create sessions focused on alternating thermal stressors to support blood flow.

Safety Auditing

Check if a planned sauna and ice bath combination stays within safe limits.

4 Tools Available

#	TOOL	DESCRIPTION
01	`calculate_cycle_metrics`	This tool computes the specific timing and ratio for a single thermal bout. It handles the math for how long you stay in heat versus cold.
02	`plan_protocol`	This tool generates a complete, structured thermal session based on your specific objectives. It builds the full sequence of heat and cold cycles.
03	`summarize_session_impact`	This tool provides a qualitative description of what you will experience during the protocol. It translates technical numbers into physical sensations.
04	`validate_safety_limits`	This tool checks if your requested temperature extremes fall within safe physiological boundaries. It flags high-risk temperature deltas.

See It in Action

Real prompts you can use once this MCP is connected to your AI agent through Vinkius Cloud.

U Design a recovery protocol with 100°F heat and 50°F cold for 3 cycles.

Your recovery protocol is ready. It consists of 3 cycles with a total session time of 45 minutes. Each cycle includes 10 minutes of heat at 100°F followed by 5 minutes of cold at 50°F.

U Is it safe to use 110°F and 40°F for contrast therapy?

The temperature delta is high. While within some limits, this is flagged as a moderate risk level for standard users. Please proceed with caution.

U What will a resilience protocol feel like if I have a capability of 8?

With an intensity scale of 8, you can expect a high-intensity session focused on nervous system adaptation, providing significant mental toughness benefits.

Frequently Asked Questions

01 **How do I use this MCP with Claude?**

You connect your Claude client to Vinkius once, and the tools become available for your agent to use in any conversation.

02 **Can this MCP help with safety?**

Yes, the validate_safety_limits tool checks if your temperature extremes are within safe physiological boundaries.

03 **What kind of goals can I set?**

You can design protocols specifically for Recovery, Circulation, or Resilience.

04 **Does it calculate the timing for me?**

Yes, the calculate_cycle_metrics tool computes the exact timing and ratios for your thermal bouts.

05 **Will it tell me what the session will feel like?**

Yes, the summarize_session_impact tool provides a qualitative description of the experience.

Go Live in 60 Seconds

Get your connection token from **cloud.vinkius.com**, then paste the endpoint URL into any MCP-compatible client.

YOUR MCP ENDPOINT

```
https://edge.vinkius.com/[TOKEN]/mcp
```

CLIENT	WHERE TO CONFIGURE
Claude AI	Profile → Customize → Connectors → "+" → Add custom connector → Paste endpoint
Cursor	Settings → Features → MCP Servers → "+ Add New MCP Server" → Type: SSE → Paste endpoint
VS Code	Ctrl/Cmd+Shift+P → "MCP: Add Server" → add `"contrast-therapy-protocol-designer": { "url": "…" }`
Windsurf	MCP Settings → `mcp_settings.json` → Add endpoint URL
ChatGPT	Settings → Tools & plugins → Add MCP server → Paste endpoint
Gemini	Extensions → Add MCP Server → Paste endpoint URL

ASK AN AI ABOUT THIS

Let your preferred AI explain this MCP server

- Ask ChatGPT
- Ask Claude
- Ask Perplexity
- Ask Gemini
- Ask Grok

READY TO CONNECT

Contrast Therapy Protocol Designer is live on Vinkius Cloud.

Get your connection token, paste it into your AI agent, and start building. No SDK. No deployment. Just results.

Start at cloud.vinkius.com →

vinkius.com · support@vinkius.com

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DOCUMENT INFORMATION

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Platform	Vinkius Cloud for AI Agents
Endpoint	`https://edge.vinkius.com/{token}/mcp`

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