

M C P S E R V E R

N O C O D E

C L O U D H O S T E D

Caffeine Metabolism Tracker MCP

Predict how your coffee intake affects your sleep.

Caffeine Metabolism Tracker MCP uses pharmacokinetic modeling to track how caffeine moves through your system. It accounts for your specific metabolic rate, whether you are a fast or slow metabolizer, to predict sleep disruption and identify the best times for your next cup.

A+ Quality Score 100/100

caffeine

metabolism

sleep

pharmacokinetics

health-tracking



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.

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.

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.

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

Encryption at rest

Ed25519

PKI vault signatures

24h TTL

Ephemeral session keys

V8 Isolate

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.

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.

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.

06 — Honeypot Trap System

Phantom credentials are injected into isolated environments. If a honeypot 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.

FinOps

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

Firewall & DLP

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

Agent Activity

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

Tool Health

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

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.

Caffeine Metabolism Tracker MCP

4 tools available

Cloud-hosted on Vinkius

Stop guessing why you can't sleep after a late afternoon latte. This MCP uses pharmacokinetic modeling to give you a clear picture of the caffeine currently circulating in your bloodstream. Instead of following generic advice, you get guidance based on your specific metabolic profile, including how your CYP1A2 genetic variants influence clearance rates. You can check your active caffeine levels at any time or calculate exactly when you need to stop drinking coffee to ensure you hit your bedtime without interference. It turns caffeine consumption from a guessing game into a predictable part of your daily routine.

Core Capabilities

01 — Bloodstream monitoring

Your agent calculates active caffeine concentrations based on your intake history.

02 — Sleep risk assessment

Your agent estimates how much caffeine will remain in your system at your scheduled bedtime.

03 — Metabolic profiling

Your agent adjusts all calculations based on whether you are a fast, average, or slow metabolizer.

04 — Cutoff scheduling

Your agent determines the specific time you should stop caffeine consumption to protect your sleep.

One Click on Vinkius — From Prompt to Execution

Available at vinkius.com/en/ai-agent-connect/caffeine-metabolism-tracker — connect your AI agent in three steps.

- 01 Connect your preferred MCP-compatible client to Vinkius.
- 02 Provide your intake history and metabolic type to your agent.
- 03 Ask your agent to calculate your current levels or sleep risk.
- 04 Receive specific cutoff times and metabolic guidance.

Connect your client to Vinkius and start managing your caffeine intake immediately.

Built For

People looking to optimize their sleep hygiene through data-driven caffeine management.

Biohackers

Users who hand off their intake logs to an agent to track physiological trends.

Sleep enthusiasts

Individuals who use an agent to prevent caffeine from ruining their nightly rest.

Health trackers

People who want to map their caffeine consumption against their metabolic profile.

What Changes When You Connect

- 01 Calculates caffeine levels using pharmacokinetic modeling.
- 02 Adjusts for individual CYP1A2 genetic metabolic variants.
- 03 Predicts physiological sleep interference risk.

04 Identifies specific daily cutoff times for consumption.

Real-World Applications

Preventing Insomnia

Use the cutoff tool to find out when to stop drinking coffee so you can sleep by 11:00 PM.

Metabolic education

Learn how being a slow metabolizer changes your caffeine clearance requirements.

Real-time tracking

Check your current caffeine levels after a midday espresso to see how much is still active.

Risk management

Assess the impact of a large caffeine dose on your ability to fall asleep later that night.

4 Tools Available

#	TOOL	DESCRIPTION
01	find_safe_cutoff_time	This tool identifies the latest time you can consume caffeine without risking sleep disruption.
02	get_current_caffeine_level	This tool determines the exact amount of caffeine currently active in your bloodstream.
03	get_metabolism_guidelines	This tool provides context on how different genetic variants affect how quickly you clear caffeine.
04	calculate_sleep_impact	This tool estimates the physiological risk that your current caffeine levels pose to your sleep quality.

See It in Action

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

U How much caffeine is currently in my system? I had 100mg at 8:00 AM and 50mg at 10:00 AM, and I am an average metabolizer.



Your current caffeine level is approximately 112.5mg.

U What is my sleep impact risk if I have 200mg of caffeine in my system now and want to sleep at 11:00 PM? I am a slow metabolizer.



Your sleep impact risk is high, with a predicted concentration of 85mg remaining at your bedtime.

U When is my safe cutoff time if I want to sleep at 10:00 PM and I am a fast metabolizer?



Your safe cutoff time is 4:30 PM.

Frequently Asked Questions

01 How does this MCP calculate caffeine levels?

It uses pharmacokinetic modeling to track how caffeine moves through your body over time.

02 Does it account for different metabolism speeds?

Yes, it accounts for fast, average, and slow metabolizers based on CYP1A2 genetic variants.

03 Can I use this with Claude or Cursor?

Yes, you can connect this MCP to any MCP-compatible client like Claude, Cursor, or Windsurf.

04 How do I find out when to stop drinking coffee?

You can use the `find_safe_cutoff_time` tool to identify the latest possible time for consumption.

05 Will it tell me if my coffee will ruin my sleep?

Yes, the `calculate_sleep_impact` tool estimates the physiological risk of caffeine interference with your sleep.

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 <code>"caffeine-metabolism-tracker": { "url": "..." }</code>
 Windsurf	MCP Settings → <code>mcp_settings.json</code> → 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

Caffeine Metabolism Tracker 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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Server ID	01a0b568-d05a-709e-9a7f-52d1269c5e9d
Platform	Vinkius Cloud for AI Agents
Endpoint	<code>https://edge.vinkius.com/{token}/mcp</code>

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