

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 Cutoff Calculator MCP

Stop caffeine before it ruins your sleep.

Caffeine Cutoff Calculator MCP uses biological modeling to predict how caffeine moves through your body. It calculates your specific cutoff times based on your metabolism and sensitivity so you can avoid sleep disruption. Connect it to your AI client to get real-time advice on when to stop drinking coffee or tea.

A+ Quality Score 100/100

sleep

caffeine

metabolism

health-tech

wellness-optimization



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 Cutoff Calculator MCP

4 tools available

Cloud-hosted on Vinkius

You can't just guess when your last cup of coffee should be. This MCP uses biological modeling to give you a precise window for caffeine consumption based on how your body actually processes it. Instead of relying on generic advice, you can provide your specific metabolic rate and neurological sensitivity to get tailored results. Your AI client can then act as a biological monitor, checking how much caffeine is currently in your system or predicting when you'll hit a certain threshold. It's about knowing exactly when that afternoon espresso will start interfering with your ability to fall asleep later tonight. You get clear, data-driven answers about your caffeine levels and the resulting sleep risks without having to do the math yourself.

Core Capabilities

01 — Metabolic Modeling

Your agent uses biological constants to track caffeine decay in your body.

03 — Residual Tracking

Your client estimates the exact amount of caffeine left in your bloodstream at any given hour.

02 — Cutoff Prediction

The AI calculates your specific deadline for caffeine intake based on your bedtime.

04 — Sleep Risk Analysis

The AI evaluates how current caffeine levels interact with your sensitivity to predict sleep disruption.

One Click on Vinkius — From Prompt to Execution

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

- 01 Connect the MCP to your preferred client like Claude or Cursor.
- 02 Provide your metabolic profile and caffeine intake to your agent.
- 03 The agent uses the biological modeling tools to run calculations.
- 04 Receive a specific cutoff time or a risk assessment for your sleep.

Connect the MCP to your AI client and start asking about your caffeine levels.

Built For

This is for anyone looking to optimize their sleep hygiene through biological data. You can hand off your caffeine intake logs to your AI client to manage your daily schedule.

Biohackers

Use the AI to model how specific caffeine doses affect your biological rhythms.

Health-conscious professionals

Hand off your daily caffeine logs to ensure your work habits don't ruin your rest.

Sleep researchers

Use the biological constants and modeling tools to track caffeine impact.

What Changes When You Connect

- 01 Calculates cutoff times based on individual metabolism rather than generic rules.
- 02 Predicts residual caffeine levels at specific future timestamps.

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- | | |
|-------|---|
| 03 | Provides risk assessments for sleep disruption based on current intake. |
| <hr/> | |
| 04 | Uses biological constants to ensure mathematical accuracy in predictions. |
| <hr/> | |
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Real-World Applications

Planning your day

Ask your agent for a cutoff time before you head to a coffee shop in the afternoon.

Monitoring intake

Check how much caffeine is still in your system before you try to go to bed.

Assessing sensitivity

Determine if a specific dose of caffeine poses a high risk to your sleep quality.

Adjusting for metabolism

Use different metabolic profiles to see how your cutoff time changes if you have a fast or slow metabolism.

Patterns to Avoid

Guessing your cutoff time

❌ AVOID

You assume you can drink a double espresso at 4 PM because you usually sleep fine. You ignore how your metabolism actually works.

✓ INSTEAD

Use ``calculate_cutoff_time`` to find your actual deadline based on your specific metabolic profile and planned bedtime.

Ignoring residual caffeine

❌ AVOID

You think that because you don't feel jittery, the caffeine is gone. You head to bed and struggle to fall asleep.

✓ INSTEAD

Run ``estimate_residual_caffeine`` to see exactly how much stimulant is still in your bloodstream at your intended sleep time.

Overlooking sleep risk

❌ AVOID

You check your caffeine levels but don't consider how sensitive you are to it tonight.

✓ INSTEAD

Use `assess\_sleep\_risk` to get a qualitative look at how your current levels will likely interfere with your rest.

The Right Fit

Connect this MCP if you want to use biological data to manage your sleep hygiene. Do not connect it if you prefer generic caffeine advice or don't care about how stimulants affect your rest. The decision depends entirely on whether you want to move from guessing to mathematical modeling.

Caffeine Cutoff Calculator Tools

These tools use biological modeling to track caffeine decay and predict sleep disruption based on your specific metabolism.

#	TOOL	DESCRIPTION
01	assess_sleep_risk	This tool provides a qualitative assessment of how much your current caffeine levels might disrupt your sleep.
02	calculate_cutoff_time	Use this to find the latest possible time you can consume caffeine without ruining your rest.
03	estimate_residual_caffeine	This tool predicts exactly how much caffeine remains in your system at a specific time in the future.
04	get_metabolic_profiles	This tool provides the standard biological constants used to drive all the calculations.

See It in Action

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

U I want to go to bed at 23:00. I have high caffeine sensitivity and an average metabolism. When should I stop drinking coffee?



To ensure a good night's sleep with high sensitivity, you should stop consuming caffeine by 14:00.

U I drank 200mg of caffeine at 10:00. I have a fast metabolism. How much caffeine will be left in my system at 22:00?



At 22:00, approximately 25mg of caffeine will remain in your system.

U I have 80mg of caffeine in my system and I am highly sensitive to caffeine. How much will this affect my sleep?



There is a high risk of sleep disruption due to your high sensitivity and current caffeine levels.

Frequently Asked Questions

01 How does this MCP calculate my cutoff time?

It uses biological modeling that accounts for your specific metabolism and neurological sensitivity to determine when caffeine will drop to a safe level.

02 Can I use this with Claude?

Yes, you can connect this MCP to any compatible client including Claude, Cursor, and Windsurf.

03 Does it account for different metabolic rates?

Yes, the tool uses metabolic profiles to adjust calculations based on how fast or slow your body processes caffeine.

04 What is a residual caffeine estimate?

It is a prediction of how many milligrams of caffeine will still be in your system at a specific time in the future.

05 How do I get started?

You simply connect the MCP through the Vinkius platform to your AI client and start asking questions about your caffeine intake.

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-cutoff-calculator": { "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 Cutoff Calculator 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	<code>https://edge.vinkius.com/{token}/mcp</code>

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