MCP SERVER | NO CODE | CLOUD HOSTED

Competition Fueling Schedule MCP

Build precise nutrition and hydration plans for race day.

Competition Fueling Schedule MCP handles the math and timing for athlete nutrition. It builds chronological fueling timelines, calculates carb loading protocols, and manages intra-event hydration strategies. You can adjust these plans based on whether a race starts in the morning or afternoon to ensure metabolic readiness.

A+ Quality Score 100/100

athlete | nutrition | hydration | performance | sports

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vinkius.com/en/ai-agent-connect/competition-fueling-schedule

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.

Competition Fueling Schedule MCP

4 tools available
Cloud-hosted on Vinkius

You can stop guessing how many grams of carbohydrates you need to hit your targets. This MCP handles the heavy lifting of nutritional timing so you can focus on training. It builds a complete, hour-by-hour roadmap for your nutrition and hydration, covering everything from the days leading up to a race to the final minutes of competition.

You use it to set up specific carb loading protocols to maximize glycogen levels before you step on the start line. Once the race begins, it provides a clear strategy for hourly intake to prevent hitting the wall. It even accounts for the time of day, shifting your eating windows if you have a morning start versus an afternoon one. Whether you are prepping for an endurance race or a short sprint, your AI client uses these tools to generate a plan that matches your specific body weight and event duration.

Core Capabilities

01 — Glycogen Saturation

Your agent calculates specific carb loading requirements based on body weight.

02 — Chronological Scheduling

Your AI client builds a step-by-step timeline for nutrition and hydration.

03 — In-Race Fueling

Your agent determines hourly carbohydrate and fluid needs during the event.

04 — Time-of-Day Adjustments

Your AI client shifts eating windows to match morning or afternoon race starts.

One Click on Vinkius — From Prompt to Execution

Available at **vinkius.com/en/ai-agent-connect/competition-fueling-schedule** — connect your AI agent in three steps.

01 Connect your preferred MCP-compatible client to Vinkius.

02 Provide your athlete's weight and race details to your AI agent.

03 The agent uses the MCP tools to calculate loading and fueling needs.

04 Receive a complete, chronological nutrition and hydration schedule.

Connect your AI client to Vinkius and start generating plans immediately.

Built For

This MCP is built for anyone managing high-performance athletic nutrition.

Endurance Coaches

Hand off athlete weight and race details to get precise fueling schedules.

Sports Nutritionists

Use the tool to validate carb loading protocols and intra-event strategies.

Competitive Athletes

Generate personal nutrition timelines for specific race times and durations.

What Changes When You Connect

01 Removes manual math for carbohydrate and hydration requirements.

02 Adjusts nutrition windows based on specific race start times.

03 Provides a structured timeline for both pre-race and in-race fueling.

04 Uses body weight to scale all nutritional recommendations.

Real-World Applications

Marathon Prep

Calculate a multi-day carb loading protocol to ensure glycogen stores are full before the race.

Triathlon Hydration

Set an hourly fluid and carb intake strategy based on specific sweat rates and race duration.

Morning Race Adjustments

Shift pre-race meal windows to accommodate an early morning start time.

Endurance Cycling

Generate a chronological timeline for fueling during long-distance rides.

4 Tools Available

#	TOOL	DESCRIPTION
01	`calculate_carb_loading_protocol`	This tool determines exactly how many carbohydrates you need to consume in the days before an event to saturate glycogen stores.
02	`generate_fueling_timeline`	This tool creates a chronological schedule of nutrition and hydration steps for an athlete.
03	`get_intra_event_strategy`	This tool calculates the specific amount of fuel and fluid you need to consume every hour during a competition.
04	`validate_event_timing`	This tool adjusts your fueling windows based on whether your race starts in the morning or the afternoon.

See It in Action

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

U Create a fueling timeline for a 120-minute endurance race starting at 2024-07-04T08:00:00Z with 5g of carbs per kg.

Your schedule includes a carbohydrate loading phase starting 3 days prior, a pre-event meal at 05:00 AM, and hourly fueling of 60g of carbohydrates during the race.

U How much should I load carbs for a 70kg athlete for 3 days?

For a 70kg athlete loading for 3 days at 10g/kg, you will need a total of 2100g of carbohydrates.

U What is my intra-event strategy for a 60-minute race with 1g/min carb target and 1L/hr sweat rate?

You need to consume 60g of carbohydrates and 1000ml of fluid per hour during the event.

Frequently Asked Questions

01 **How does this MCP help with carb loading?**

It uses the calculate_carb_loading_protocol tool to determine the exact amount of carbohydrates needed based on an athlete's weight and the number of days leading up to an event.

02 **Can I adjust for a race that starts in the afternoon?**

Yes. The validate_event_timing tool adjusts your fueling windows specifically for morning or afternoon starts.

03 **Does it handle hydration during the race?**

Yes. The get_intra_event_strategy tool calculates specific hourly hydration and fueling requirements for the duration of the competition.

04 **What AI clients can I use with this MCP?**

You can use any MCP-compatible client, including Claude, Cursor, Windsurf, and VS Code.

05 **Is the fueling schedule chronological?**

Yes. The generate_fueling_timeline tool creates a chronological schedule of nutrition and hydration steps.

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 `"competition-fueling-schedule": { "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

Competition Fueling Schedule 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`

LICENSE & USAGE

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