

MCP SERVER

NO CODE

CLOUD HOSTED

API Ninjas MCP for AI Agents

Calculate Body Metrics and Nutrition Data

API Ninjas gives your AI client instant access to fitness, nutrition, and health data.

Calculate Basal Metabolic Rate (BMR), Total Daily Energy Expenditure (TDEE), body fat percentages, and calorie burn for any activity. It also lets you search thousands of exercises or check the nutritional facts for specific food items.

A+ Quality Score 100/100

fitness-tracking

calorie-calculator

health-data

exercise-search

nutrition-info

lifestyle-tools



The infrastructure that powers AI agents in the real world.



Vinkius connects AI to the world's software through secure, enterprise-grade infrastructure — enabling real-world execution at scale, built on the Model Context Protocol (MCP).

Your AI Connections Run Through Vinkius Cloud

The world's largest
managed MCP catalog

Vinkius is the cloud infrastructure where AI agents connect 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.

API Ninjas MCP

8 tools available

Cloud-hosted on Vinkius

You don't need to switch between multiple spreadsheets or look up complex metabolic formulas anymore. This MCP connects your AI client directly to a massive library of health data. Instead of manually calculating Basal Metabolic Rate (BMR) or estimating body fat using different formulas, your agent runs the necessary computations instantly.

Need to plan a workout? Your agent can search thousands of exercises by muscle group and difficulty level, giving you step-by-step instructions right away. Planning meals is easy too; just ask for nutrition facts on any food item—it delivers calories, protein, carbs, fat, and more. This robust toolset ensures that whether you're a personal trainer checking client metrics or an athlete tracking daily steps, your AI agent has the data it needs to act immediately. It's one of the most powerful health-related MCPs available on the Vinkius catalog.

Core Capabilities

01 — Calculate metabolic rates

Determine a user's Basal Metabolic Rate (BMR) and their Total Daily Energy Expenditure (TDEE) based on weight, height, age, and activity level.

03 — Search detailed exercise libraries

Find thousands of exercises by filtering criteria such as muscle group, equipment needed, or difficulty level, complete with instructions.

05 — Track activity output

Estimate calories burned and distance traveled based on step count or specific physical activities over a duration.

02 — Estimate body composition metrics

Calculate estimated body fat percentage using specific measurements like waist, neck, and hip circumference.

04 — Determine nutritional content

Retrieve full nutritional breakdowns for any food item, including calories, protein, fat, and fiber per 100g serving.

One Click on Vinkius — From Prompt to Execution

Available at vinkius.com/mcp/api-ninjas — connect your AI agent in three steps.

- 01 Subscribe to the API Ninjas MCP, then input your personal API key into your AI client.
- 02 Your agent accesses the full catalog of health data and fitness functions through natural conversation.
- 03 You ask a specific question, like 'What are low-intensity cardio exercises for beginners?' or 'Calculate my TDEE.' The tool returns the precise data needed.

The bottom line is, your AI client handles all the complex math and data retrieval from this MCP so you just get the final answer.

Built For

Anyone dealing with physical performance metrics or diet planning needs this. Personal trainers who need quick, reliable calculations are major users. Nutritionists using it can quickly check food data for clients without leaving their workflow. Fitness enthusiasts use it daily to track goals.

Personal Trainer

Using the MCP, you calculate client BMR and TDEE instantly, then search for appropriate exercises by muscle group to build a targeted workout plan.

Nutritionist

You look up specific food items using the nutrition tool, providing accurate calorie counts, protein levels, and fiber content directly in your client notes.

Fitness Enthusiast

You track your daily steps or record an activity to estimate calories burned. You also use it to find new exercises for specific body parts you want to improve.

What Changes When You Connect

- 01 Eliminate manual calculations. You get instant, accurate results determining your Total Daily Energy Expenditure (TDEE) using the `get_tdee` tool.
- 02 Find targeted workouts quickly. The `get_exercises` tool lets you filter exercises by muscle group and difficulty level in seconds.
- 03 Accurate diet planning is simple. Use `get_nutrition` to get full nutritional breakdowns for any food item, keeping your clients' diets on track.
- 04 Track progress without effort. With the `get_steps` tool, your agent calculates both distance and estimated calories from just a step count.
- 05 Know when to rest. The `get_sleep` tool provides clear recommendations on optimal sleep duration based on demographics.

Real-World Applications

Building a Client Program

A personal trainer needs to build a workout for a client who has specific weaknesses. The agent uses `get_tdee` first, then searches the database using `get_exercises` filtered by 'hamstrings' and 'intermediate' difficulty to suggest perfect routines.

Post-Workout Status Check

A user finishes a run and needs to know their recovery metrics. They use the agent to calculate the total distance and estimated calories using `get_steps`, providing immediate feedback on performance output.

Meal Planning for Athletes

An athlete needs to ensure their diet hits specific macronutrient goals. They prompt the agent, which uses `get_nutrition` on several food items, giving a detailed breakdown of calories, protein, and carbs per meal plan.

Patterns to Avoid

Guessing energy needs

X AVOID

Manually estimating daily calorie requirements based only on age and weight, which ignores crucial factors like activity level or body composition.

✓ INSTEAD

Always use the `get_tdee` tool. This calculation incorporates your weight, height, age, gender, *and* specific activity levels for an accurate total energy expenditure estimate.

Ignoring body measurements

X AVOID

Simply estimating body fat based on visual checks or a single measurement, which can lead to inaccurate fitness goal setting.

✓ INSTEAD

Use the `get_body_fat` tool. You provide specific circumference measurements (waist, neck, hip) for an estimate that uses the US Navy method.

Searching by general keywords

X AVOID

Asking the agent to find 'good leg workouts' without specifying equipment or muscle group, resulting in a vague list of generic exercises.

✓ INSTEAD

Use `get_exercises` and filter by specific parameters like 'quadriceps', 'beginner' difficulty, and required equipment for highly targeted results.

The Right Fit

Use this MCP if your workflow requires calculating any physical health metric: BMR, TDEE, body fat, or tracking activity output. You need reliable data on nutrition facts or exercise instructions. However, don't use it if you are simply looking for general wellness advice (e.g., 'how many hours of sleep should I get?'). For basic recommendations like optimal sleep duration, the `get_sleep` tool is precise enough; but if your task involves complex data retrieval—like comparing multiple food items or generating a workout plan based on multiple factors—you'll need to chain several tools together. This MCP excels at math and structured lookups, not general advice.

API Ninjas: Calculating Body Metrics and Nutrition Facts

Right now, figuring out if a diet is balanced or how much energy you need for the day means juggling multiple formulas. You're cross-referencing weight, height, activity multipliers, and then separately looking up macronutrient percentages for every food item. It's tedious copy-pasting between spreadsheets just to get an idea of your client's metabolic state.

With this MCP, you simply ask your agent to determine a client's TDEE or check the nutritional breakdown of three different meals. The system handles all the complex math and data lookups immediately. You get clean, actionable numbers ready for your notes.

API Ninjas: Searching Fitness Exercises by Muscle Group

When designing a workout, you usually spend time searching fitness databases to ensure the routine hits all target muscles. You might find general lists of 'chest exercises' but then waste minutes filtering for only dumbbell-based moves suitable for an intermediate client.

Now, you just tell your agent: 'Find three chest exercises using dumbbells for someone at an intermediate level.' The MCP uses `get_exercises` to pull exactly what you need—name, instructions, equipment needed—all in one go.

API Ninjas: 8 Tools for Body Metrics Calculation

Calculate everything from your Basal Metabolic Rate to detailed exercise instructions using these specialized functions.

#	TOOL	DESCRIPTION
01	<code>get_bmr</code>	Calculates a person's Basal Metabolic Rate (BMR) using weight, height, age, and gender input.
02	<code>get_body_fat</code>	Estimates body fat percentage by requiring measurements of the waist, neck, and hip circumference.
03	<code>get_calories_burned</code>	Calculates estimated calories burned for a specific activity given the user's weight and duration.
04	<code>get_exercises</code>	Searches a database of over 1000 exercises by name, muscle group (like glutes or chest), equipment, or difficulty level.
05	<code>get_nutrition</code>	Provides detailed nutritional facts for any food item per 100g serving, including carbs, fat, and protein.
06	<code>get_sleep</code>	Recommends an appropriate sleep duration range based on the user's age and gender.
07	<code>get_steps</code>	Calculates both estimated calories burned and distance traveled using a step count, with optional weight and height inputs for accuracy.
08	<code>get_tdee</code>	Determines the Total Daily Energy Expenditure (TDEE) by factoring in weight, height, age, gender, and activity level.

See It in Action

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

U I'm 45, female, 72kg, 168cm. I walk about 8000 steps a day and run twice a week. What are my daily calorie needs?



Activity Profile: High Activity

- **BMR:** ~1,350 calories/day (minimum)
- **TDEE Estimate:** You burn roughly 2,400 - 2,600 calories per day. This accounts for your daily steps and regular running.
- **Goal:** To maintain weight, aim for this range. If you want to lose weight, subtract 300-500 calories.

U Find three exercises targeting my lower back that I can do at home with no equipment.



Target: Lower Back

1. **Supermans:** *Difficulty:* Beginner | *Equipment:* Bodyweight | *Instructions:* Lie face down, raise arms and legs simultaneously. Hold for 2 seconds. (3 sets of 15 reps).
2. **Glute Bridges:** *Difficulty:* Beginner | *Equipment:* Bodyweight | *Instructions:* Lying on your back, lift hips until body forms a straight line from shoulders to knees. (3 sets of 20 reps).
3. **Bird-Dogs:** *Difficulty:* Intermediate | *Equipment:* Bodyweight | *Instructions:* On hands and knees, extend opposite arm and leg while keeping the core tight. (15 reps per side).

U What are the nutritional facts for an avocado and a cup of oatmeal?



Nutrition Breakdown (per 100g / standard serving)

- **Avocado:** Calories: 160, Protein: 2g, Carbs: 9g, Fat: 15g, Fiber: 7g.
- **Oatmeal:** Calories: 150, Protein: 5g, Carbs: 27g, Fat: 3g, Fiber: 4g.

These values help you track healthy fats and complex carbs against your daily goals.

Frequently Asked Questions

01 How do I use the API Ninjas MCP to calculate my TDEE?

Just ask your agent for your Total Daily Energy Expenditure, providing your weight, height, age, gender, and typical activity level. The tool gives you a specific calorie range needed to maintain or change your body weight.

02 Can API Ninjas help me build a workout plan?

Yes. You can use the MCP to search for exercises by muscle group, difficulty, and equipment type. This allows you to program specific, highly targeted workouts without manual searching.

03 Does this MCP calculate body fat percentage accurately?

It provides an estimate using established formulas like the US Navy method. You must provide your waist, neck, and hip measurements for the best results from the API Ninjas MCP.

04 I need to check if a food is good for me; can API Ninjas help?

The MCP lets you look up nutrition facts on any food item. You get detailed metrics like protein, fiber, sodium, and fat per 100g serving right away.

05 Is this better than using a spreadsheet for fitness data?







Absolutely. Instead of manually inputting formulas and checking sources, your AI client uses the API Ninjas MCP to run all calculations instantly, reducing human error and saving time.

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>"api-ninjas": { "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

API Ninjas 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](https://cloud.vinkius.com) →

vinkius.com · support@vinkius.com

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DOCUMENT INFORMATION

Generated	June 2026
MCP Server	API Ninjas MCP
Server ID	019d8417-25ec-725f-8d14-de7c8e235997
Platform	Vinkius Cloud for AI Agents
Endpoint	https://edge.vinkius.com/{token}/mcp

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