MCP SERVER | NO CODE | CLOUD HOSTED

Flexibility Score Assessment MCP

Convert physical measurements into actionable mobility profiles.

Flexibility Score Assessment MCP turns raw sit-and-reach data into standardized health profiles. Your AI client uses this to calculate percentile rankings, identify muscle tightness, and suggest specific stretching protocols based on demographic norms. It bridges the gap between a simple physical test and a personalized mobility plan.

A+ Quality Score 100/100

flexibility | fitness | health | assessment | stretching

MAINTAINED BY VINKIUS CLOUD FOR AI AGENTS · SEPTEMBER 2026
vinkius.com/en/ai-agent-connect/flexibility-score-assessment

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.

Flexibility Score Assessment MCP

4 tools available
Cloud-hosted on Vinkius

You can stop manually comparing physical test results against outdated charts. This MCP acts as a specialized engine that processes sit-and-reach measurements to build a complete picture of a user's mobility. When you provide your agent with a measurement and demographic details, it handles the math to determine where that person stands compared to their peers. It doesn't just give you a number; it identifies which muscle groups are tight and maps those results to specific categories. From there, your AI client can move from assessment to action by pulling tailored stretching routines that match the user's specific needs. It's a direct way to turn a single physical data point into a structured wellness roadmap.

Core Capabilities

01 — Percentile Calculation

Your agent uses this to rank a user's flexibility against demographic standards.

02 — Muscle Tightness Identification

The AI identifies specific muscle groups that need attention based on test results.

03 — Demographic Benchmarking

Your client pulls expected reach ranges for specific ages and genders.

04 — Protocol Generation

The AI suggests specific stretching routines based on the assessment outcome.

05 — Label Mapping

The tool converts raw numbers into clear, readable flexibility categories.

One Click on Vinkius — From Prompt to Execution

Available at **vinkius.com/en/ai-agent-connect/flexibility-score-assessment** — connect your AI agent in three steps.

01 Connect your preferred MCP-compatible client to Vinkius.

02 Provide the sit-and-reach measurement and demographic details to your agent.

03 The agent uses the MCP to calculate percentiles and muscle status.

04 The agent delivers a categorized flexibility profile and stretching guidance.

Connecting this MCP to your AI client allows you to process physical data instantly.

Built For

This MCP is built for professionals who need to turn physical assessments into structured health data.

Fitness Coaches

They hand off client measurement data to the AI to generate personalized stretching plans.

Physical Therapists

They use the tool to benchmark patient progress against demographic norms.

Health App Developers

They integrate these tools to power the assessment logic within their own agent-based interfaces.

What Changes When You Connect

01 Removes the need for manual percentile lookups.

02 Standardizes physical measurements against demographic data.

03 Converts raw numbers into actionable stretching protocols.

04	Identifies specific areas of muscle tightness automatically.

Real-World Applications

Client Progress Tracking

A coach uses the tool to compare a client's monthly sit-and-reach results against their initial baseline.

Automated Mobility Coaching

An AI agent takes a user's measurement and immediately provides a tailored stretching routine.

Demographic Research

A researcher checks the expected reach ranges for specific age and gender groups.

Injury Prevention

A therapist identifies high-risk tightness in a patient to recommend preventative movement.

4 Tools Available

#	TOOL	DESCRIPTION
01	`calculate_flexibility_status`	This tool evaluates a single test attempt to build a full flexibility profile. It processes the raw data to find rankings and muscle tightness.
02	`get_demographic_norm_range`	This tool retrieves the expected reach range for specific demographic groups. It provides the baseline needed to judge a measurement.
03	`get_stretching_guidance`	This tool provides specific stretching protocols based on assessment results. It turns the data into a concrete movement plan.
04	`map_category_to_label`	This tool converts numerical percentiles into human-readable classifications. It turns raw math into easy-to-understand labels.

See It in Action

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

U Assess my flexibility: I reached 35cm, I am 25 years old, and I am female.

Your flexibility is in the 65th percentile, which is categorized as Average. Your hamstrings show slight tightness. We recommend the 'Lower Body Mobility' routine with moderate intensity.

U What is the expected reach range for a 40-year-old male?

For a 40-year-old male, the expected reach range is between 32cm and 41cm, with a mean of 36.5cm.

U I am in the 15th percentile for flexibility. What should I do?

Since you are in the 15th percentile, you should focus on the 'Foundation Flexibility' routine with low intensity to safely improve your range of motion.

Frequently Asked Questions

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

You connect your Claude client to Vinkius once. After that, you can simply type your measurement data into your chat, and the agent will use the MCP tools to process it.

02 **What kind of measurements does this MCP support?**

This MCP is specifically designed for sit-and-reach measurements to assess flexibility.

03 **Can the AI suggest specific exercises?**

Yes. The tool provides specific stretching protocols and routines based on the results of the flexibility assessment.

04 **Does it account for age and gender?**

Yes. The MCP includes tools to retrieve demographic norm ranges, allowing for accurate percentile rankings based on age and gender.

05 **Do I need to host this myself?**

No. Vinkius hosts and manages the MCP for you. You just connect your client and start using the tools.

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 `"flexibility-score-assessment": { "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

Flexibility Score Assessment 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

Generated	September 2026
MCP Server	Flexibility Score Assessment MCP
Server ID	`01a0b56a-7bc4-73cf-a61d-03e3706b4987`
Platform	Vinkius Cloud for AI Agents
Endpoint	`https://edge.vinkius.com/{token}/mcp`

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