Research Summary: Shilajit #1

As featured in Dr. Kenny Mittelstadt's video:
"Does Shilajit Actually Work? What I Noticed"
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Research Context:

Shilajit is often discussed like one simple supplement with one predictable outcome: more energy, better testosterone, sharper focus, or faster recovery. This video asks a more useful question: what does shilajit actually do in the body, and why might one person feel a noticeable shift while another feels very little? The research points to several connected areas, including hormone signaling, mitochondrial energy production, mineral transport, exercise resilience, and safety concerns around sourcing and heavy metals. In other words, shilajit is not just about whether it "works."

It is about the terrain it enters. Your sleep, stress load, blood sugar balance, nutrient status, recovery capacity, and product quality may all influence the signal. These studies help bring context to the claims so the conversation becomes less hype-driven and more grounded.

Key Findings from the Research:

Study 1 (PMID 26395129):
This randomized, double-blind, placebo-controlled trial studied healthy men ages 45 to 55 who took purified shilajit, 250 mg twice daily, for 90 days. Compared with placebo, the shilajit group had higher total testosterone, free testosterone, and DHEA-S, a hormone made mostly by the adrenal glands that can act as a building block for other hormones. Importantly, LH and FSH, the brain signals that help regulate testosterone production, stayed stable. In plain English, shilajit did not appear to override the hormone system from the top down. The pattern suggests it may have supported the environment needed for hormone production, rather than forcing a hormone response. This matters because testosterone production depends on energy, antioxidant protection, mineral availability, and healthy cellular function.

Study 2 (PMID 38393486):
This 2024 review looked closely at shilajit's heavy metal profile, humic substances, and safety concerns. Humic substances are naturally occurring compounds from decomposed plant and organic matter; fulvic acid is one of the better-known examples. The review found that shilajit can contain around 65 heavy metals in its natural state, including potentially harmful metals such as lead, arsenic, cadmium, and mercury. The authors also noted that humic substances may help bind some heavy metals, but that does not make untested products automatically safe. The practical takeaway is simple: shilajit quality matters. A product may have interesting biological activity, but without purification and third-party testing, the risk side of the equation changes. This is where sourcing becomes part of the clinical conversation.

Study 3 (PMID 30728074):
This study tested 250 mg, 500 mg, or placebo daily for eight weeks in 63 recreationally active men. Researchers looked at fatigue-related changes in muscle strength and hydroxyproline, a marker that can reflect collagen or connective tissue breakdown. In the higher-strength subgroup, the 500 mg group had a smaller drop in maximal strength after fatiguing exercise compared with the 250 mg and placebo groups. The 500 mg group also had lower baseline hydroxyproline than the other groups. Put simply, the higher dose did not act like a stimulant. It seemed to help some participants hold onto strength better under stress, possibly through effects on energy production and connective tissue adaptation. But this was a specific group, so the results should not be overgeneralized.

Functional Medicine Connections:

Here's how these pieces fit together: shilajit is not just a "testosterone supplement," an "energy supplement," or a "mineral supplement." It appears to touch several parts of the body's communication network at once. Hormones require mitochondrial energy. Mitochondria are the tiny structures inside cells that help turn food and oxygen into usable energy.

Connective tissue repair depends on protein turnover, minerals, antioxidant protection, and recovery capacity. Mineral transport may also be influenced by compounds like fulvic acid, which can help carry minerals across cellular boundaries.

This is why response may differ from person to person. If sleep, blood sugar, stress load, nutrient status, and recovery are supported, shilajit may have a clearer signal. If the body is under heavier system load, that signal may feel muted, inconsistent, or absent. The research points to context, not a one-size-fits-all effect. The terrain matters as much as the compound itself.

Practical Reflections & Takeaways:

If you have tried shilajit and felt something noticeable, the better question may be: what system was ready enough to respond? Was the shift in afternoon energy, workout recovery, mental focus, physical stamina, or hormone-related changes? That response can be useful information, but it is still only one clue in the larger picture.

If you tried shilajit and felt nothing, that may also be meaningful. It does not automatically mean the compound does nothing. It may mean your body had louder competing signals, such as poor sleep, high stress load, low nutrient reserves, blood sugar swings, gut inflammation, or higher recovery demands. Sometimes the most important information is not whether a supplement "worked," but what your response reveals about the terrain underneath.

And if you are considering shilajit, product quality deserves just as much attention as benefits. Ask whether it is purified, standardized, and third-party tested for heavy metals.

References:

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