



Copper Peptide (Skin & Hair)

GHK-Cu

What It Is & What It Does

GHK-Cu is a copper-binding peptide your body naturally makes — discovered in 1973 when researchers noticed young people's blood healed tissue far better than older people's, and traced the difference to this peptide. Your levels drop by about 60% between age 20 and 60 (from roughly 200 ng/mL to 80 ng/mL in blood plasma), which tracks closely with visible skin aging, slower wound healing, and hair thinning.

What The Research Shows

- A 12-week clinical trial in 71 women using a GHK-Cu facial cream found measurable increases in skin density and thickness, and reduced fine lines.
- A 2007 study on isolated human hair follicles found GHK-Cu enlarged follicles, stimulated hair shaft growth, and extended the active growth phase — mechanistic evidence it directly affects the follicle, not just the scalp environment around it.
- A 2013 study in Dermatologic Surgery tested it specifically on male pattern baldness: about 40% of subjects showed significant hair growth after 6 months of consistent use, a result described as comparable to minoxidil alone.

Men's & Women's Health Research

Men / General

- Male pattern baldness affects about 50% of men by age 50, and follows a specific mechanism: GHK-Cu appears to inhibit 5-alpha-reductase, the enzyme that converts testosterone into DHT, the hormone primarily responsible for male pattern hair loss — giving it a plausible direct mechanism for this specific type of hair loss, not just general scalp health.

Women

- Female pattern hair loss affects about 40% of women by menopause and typically looks different from men's — diffuse thinning across the crown rather than a receding hairline — and is tied to different hormonal drivers (estrogen decline, thyroid function) rather than DHT alone.
- Because GHK-Cu works through a non-hormonal mechanism, it's specifically usable by women who can't or shouldn't use hormonal hair-loss treatments like finasteride, which is actually contraindicated in women of childbearing age due to birth defect risk if handled during pregnancy.
- Safety data specifically during pregnancy and breastfeeding is insufficient — most sources recommend discontinuing use during these periods even though the peptide is naturally occurring.

Reported Side Effects

- Mild irritation possible at higher topical concentrations (above roughly 2%)
- Very well tolerated overall, up to 1.0% concentration, given its long history of cosmetic use

Regulatory Status

Used in over-the-counter cosmetics; not a novel unapproved drug in the same sense as most peptides here, though injectable/research-grade use is unapproved.

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Tumor Growth Research Note — GHK-Cu

Category: No Documented Mechanism Found

No documented tumor-growth mechanism or cancer-risk signal was found for GHK-Cu in the research conducted for this catalog. This compound's documented mechanisms don't fall into the primary categories of concern (angiogenesis, direct mitogenic/IGF-1 signaling, or direct melanocyte stimulation) covered in the full research review. This is a statement of what the current research does and doesn't show, not a guarantee of safety in every context — anyone with an active or recent cancer history should still consult a physician before using any research compound.

This note is a compound-specific excerpt. For the complete framework, full evidence review, and all compound categories, see the standalone document: Can Peptides Cause Tumor Growth? — A Deep-Dive Research Summary. For laboratory and research use only. Not for human or veterinary use. Nothing here constitutes medical advice or a screening recommendation.



GHK-Cu

2026 regulatory update

2026 U.S. Regulatory Update — Injectable/Research-Grade Form

The over-the-counter cosmetic use described elsewhere in this document is unaffected by any of this. Separately, injectable GHK-Cu was among the peptides the FDA had listed on the restricted Category 2 bulk-substances list in 2023; that nomination was later withdrawn, and as of mid-2026 injectable GHK-Cu was not part of the active 503A Bulks List review process covered for other compounds in this catalog.

A favorable PCAC vote is a recommendation, not a legal change. The FDA is not bound by it, and any formal addition to the 503A Bulks List still requires notice-and-comment rulemaking, a process that can take well over a year. As of this update, none of the peptides discussed below are legal to compound under 503A.

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