GHK-Cu

Copper peptide complex (glycyl-L-histidyl-L-lysine)

CARD 09

CLASS	CLINICAL CATEGORY	EVIDENCE LEVEL	OVERALL STATUS
Cosmetic / reparative peptide	Dermatology / wound healing	Low to moderate	Cosmetic use — not therapeutic



KEY APPLICATIONS

- **Wound healing** — Dermatology
- **Collagen synthesis** — In vitro studies
- **Skin aging** — Cosmetic research
- **Skin repair** — Topical

⚠ **Studied for: skin repair and cosmetic signs of aging.** Small cosmetic human studies only; no trials establish therapeutic efficacy.

HOW IT WORKS IN THE BODY

GHK-Cu → Skin / dermis → Collagen and matrix → Skin repair

- Natural **copper** complex present in human plasma.
- Stimulates **collagen and extracellular matrix** in vitro.
- Best established in **topical cosmetics**.
- **Injectable use has no regulatory** backing.

QUICK PRACTICAL INFO

HALF-LIFE	ROUTES STUDIED
Not applicable (topical use)	Topical (cosmetic); injectable without backing
PHARMACOKINETICS	**STABILITY**
Limited skin absorption	Stable in cosmetic formulation
INTERACTIONS	**MONITORING**
Poorly studied	Skin response and local tolerance

EVIDENCE & SAFETY

EVIDENCE

LOW
EXPERIMENTAL

- In vitro data are **consistent**.
- Clinical studies are **small** and cosmetic.
- Injectable use **not validated**.

CLINICAL CAUTION

- Local irritation with **topical use**.
- Risk of **copper overload** with systemic use.
- Injectable use **without backing**.
- Caution on broken skin.

REGULATORY STATUS

FDA	EMA	ANVISA	WADA	Research	Off-label
Cosmetic; not therapeutic	Status not confirmed	Registered as a cosmetic	Check the current list	✓ Yes, limited data	⊘ No established backing

CLINICAL READ IN 10 SECONDS

- Widely used in topical **cosmetics**.
- Stimulates **collagen** in vitro.
- Clinical evidence is **modest**.
- **Injectable** use without backing.

KEY REFERENCES

Pickart & Margolina, 2018 — Int J Mol Sci 19(7):1987

PubMed — reviews on GHK-Cu and the skin

Technical, informational content. It does not replace individualized clinical judgment or constitute a recommendation. No dose, protocol or source is provided.