

Amazing Benefits of GHK-cu (Copper Peptide)

from ReverseAgingWithGHK.com

Skin & Hair	Anti-Cancer
<ul style="list-style-type: none">• GHK was first studied for wound healing (1983+) and later for its effects on skin and hair. In many controlled, peer-reviewed published articles, GHK was found to have:• Tightened loose skin and thicken older skin• Repaired protective skin barrier proteins• Improved skin firmness, elasticity, and clarity• Reduced fine lines, depth of wrinkles, and overall appearance• Smoothed rough skin• Reduced photodamage, mottled hyperpigmentation, skin spots and lesions• Improved overall appearance• Protected skin cells from UV radiation• Increased hair growth and thickness, enlarge hair follicle size• Accelerated wound healing, but better when used in liposomes due to its sensitivity to carboxypeptidase breakdown effects	<ul style="list-style-type: none">• Topped 1,309 bioactive compounds as the Broad Institute computer recommended molecule for the treatment of human metastatic colon cancer.• GHK, at 1 nanomolar, reset the programmed cell death system in human cancer cells (human neuroblastoma, leukemia, and breast cancer) but did not affect healthy cells• GHK-copper plus ascorbic acid suppressed a sarcoma in mice.• GHK inhibited NFKB p65 which is believed to promote cancer growth• Repaired damaged DNA at cellular level at 1 naomolar (47 genes up, 5 genes down)• GHK-copper induced cell differentiation• Reset 84 genes to growth inhibition or cancer inhibition
Lung Protection	Antioxidant, Anti-Inflammatory
<ul style="list-style-type: none">• Topped 1,309 bioactive compounds as Broad Institute computer recommended molecule for treatment of Chronic Obstructive Pulmonary Disease. Restored healthy function in COPD affected cells at 10 nanomolar.• Protected Lung Cells from damage by both bleomycin and lipopolysaccharide-induced injury.• In fetal lung cells, GHK-Cu (at concentrations of 0.1, 1.0, and 10 nanomolar) produced dose-response changes in 329 Human Fetal Lung Genes of the extracellular matrix	<ul style="list-style-type: none">• Increased SOD1 Activity. Suppressed toxic products of lipid oxidation alpha,beta-4-hydroxy-trans-2-noneal and acrolein, peroxy radicals, hydroxyl radicals, p38 MAPK, IL-6, IL-17, TNF alpha, and strongly suppressed NFKB, a molecule which is believed to be a primary cause of many diseases of aging.• Completely blocked CU2+ oxidation of low-density lipoproteins while SOD1 gave only 20% blocking.• Blocked release of oxidizing iron from ferritin.

Brain & Nerves	Stem Cells & Other Actions
<ul style="list-style-type: none"> • Altered expression of human genes important in neuron function by 50%, plus or minus, with 408 UP and 230 DOWN • Induced strong anti-anxiety and anti-aggression effects in rats within 12 minutes at a weight equivalent of 35 micrograms in 70 Kg humans. • Induced anti-pain activity in rats within 12 minutes. • Alleviated neuronal apoptosis due to intracerebral hemorrhage. • Now used clinically in humans for the treatment of damaged spinal segments in the neck. Treatment was for 20 days with a daily injection of 0.25 mg GHK-Cu into the skin around the damaged area. 	<ul style="list-style-type: none"> • Caused adult MCS Stem Cells to produce more growth factors, increased stem cell differentiation. • Enhanced activity of alginate hydrogels for human cord blood MCS Stem Cell Osteogenesis. <p>ADDITIONAL ACTIONS OF GHK:</p> <ul style="list-style-type: none"> • Increased the healing of many tissues (Skin, Stomach, Intestine Lining, Bone Tissue) • Strongly chemo-attracted capillary cells, mast cells, and macrophages • Strongly activated genes of the Ubiquitin Proteasome System used for cell cleansing. (41 genes up, 1 gene down) • Blocked Cortisone's anti-regeneration effects. • Suppressed the insulin and insulin-like system that reduces lifespan in roundworms • Reduced fibrinogen synthesis. Fibrinogen levels are the top predictor of cardiovascular heart disease • Increased myostatin gene expression 9.4-fold. Myostatin inhibits heart failure.

The Piano Key Theory of Human Aging: How to Reduce the Diseases of Human Aging with GHK-Cu

The main cause of human aging appears to be that the genes lose their optimal pattern of UP and DOWN settings (age 20-25). This is like piano keys. When the piano is new, it plays beautiful music, but with time the piano keys lose their proper tuning as the music is imperfect. Likewise, with time human genes lose their youthful settings and the diseases and conditions of aging set in. GHK, which was discovered during biochemical studies of human aging, resets human genes to a younger and healthier condition.

Most current theories and therapies to treat disease tend to target only one biochemical reaction or pathway. But for human aging, our data finds that we must think of simultaneously resetting hundreds or thousands of genes to protect at-risk tissues and organs. GHK may be a major step towards this resetting goal.