

COPPER RESEARCH TIMELINE

OTHER COPPER STUDIES

2018 | CHYDERIOTIS Systematic Review
 Concludes that copper is effective but that no clear connection has been made to reducing HAIs
Last publication included in review from August 2016

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2020 | DOREMALEN, et al
 No SARS-CoV-2 detected on copper after 4 hours. Virus detected on plastic and stainless steel up to 72 hours.

2017 | HINSA-LEASURE
 Copper alloy athletic equipment had less contamination

2017 | SCHMIDT
 Copper alloy components on stethoscopes were less contaminated

2017 | MARCUS
 Copper textiles associated with reductions in fever days, antibiotic use

2017 | SOULI et al
 Copper alloy surfaces reduced colonization by MDROs

2016 | HINSA-LEASURE
 Copper alloys reduce bioburden on patient room high-touch surfaces

2016 | VON DESSAUER
 Copper alloys reduce bioburden in pediatric ICU

2015 | ESER
 Copper alloys show statistically significant reductions in bioburden

2014 | LAZARY
 HAI rates reduced in ICU with copper-impregnated textiles

2013 | SALGADO
 Bioburden and HAIs reduced in ICUs with copper fixtures

2012 | KARPANEN
 Copper fixtures had lower microbe counts

2010 | SALGADO
 Copper fixtures in hospital ICU reduced microbial load by 87.4%

2009 | CASEY
 Copper harbors 90-100% fewer microbes than controls

2008 | MEHTAR
 Copper kills pathogens associated with healthcare associated infections

2008 | EPA REGISTRATION
 US Environmental Protection Agency registers copper alloys as antibacterial sanitizing surfaces

2007 | MICHAELS
 Copper demonstrates superior antimicrobial efficacy versus stainless steel

1980s-2000s | MECHANISMS OF BIOCIDAL ACTIVITY
 How copper disrupts bacterial cell membranes, metabolism, role of free radicals

1960s | ANTI-PATHOGEN ACTIVITY
 Studies demonstrate efficacy of copper against a broad spectrum of pathogens

EOS^{CU} MILESTONES

2021 | HARRIS

Study investigated persistence and viability of SARS-CoV-2 on 16 common indoor surface finishes. No viable virus detected on EOS^{CU} at 4 hours; viable virus detected on stainless and Corian at 30+ hours.

2020 | JINADATHA

A team from several Veteran's Administration hospitals demonstrated EOS^{CU} significantly reduces bioburden on high-touch surfaces

2019 | R01 GRANT AWARDED

Dr. Jinadatha and team awarded R01 NIH Grant to continue studying EOS^{CU}'s self-sanitizing properties and economic impact on reducing HAIs

2018 | BURKE

Hospital with EOS^{CU} surfaces and Cupron textiles reduced HAIs significantly when compared to equally new and certified hospitals

2017 | COPPEN et al

EOS^{CU} tray tables had 81% less bioburden than standard tables; VA hospital

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2017 | WEBER Commentary

Includes Souli, Von Dessauer, and Sifri

Concludes that research is promising; encourages more studies

2016 | SIFRI

Hospital wing with EOS^{CU} surfaces and Cupron Textiles had 68%-83% fewer HAIs

2016 | MULLER Review

Concludes that copper results in modest reductions and studies are at high risk for bias

Review stops November 2014

2014 | MONK

Data demonstrating EPA-registered efficacy published for EOS^{CU}; >99.9% kill within 2 hours

2012 | EPA REGISTRATION

EOS^{CU} achieves EPA-registration for public health claims as an antibacterial sanitizing surface

