



A New Standard in Wound Care

Innovative Copper-Based Dressings

MedCu wound dressings are the only FDA and CE cleared antimicrobial wound dressings impregnated with copper oxide particles in the market. These are single use dressings designed to address acute, post surgical and chronic wounds.

The Power of Copper

Copper has broad spectrum biocidal efficacy against bacteria, viruses and fungi and is an essential mineral for the human body. Copper has been used for health, medical and wellness purposes for thousands of years, dating back to ancient Egyptians, Romans, Indians and Aztecs. Copper is biocompatible and safe.

Antimicrobial Properties

MedCu dressings leverage 15 years of research and successful commercialization of copper impregnation into various fabrics and polymers. The company's unique propriety copper technology is protected by 30 patents worldwide and was implemented by the Israel Defense Forces (IDF) and tested for head-to-toe garments for NASA.

MedCu dressings are designed for placement directly on the wound surface and are made of an internal absorbent layer and external non-binding layer, both impregnated with copper oxide particles, with or without an adhesive contour. The sustained release of copper ions endows the dressings with potent wide spectrum antimicrobial properties. MedCu dressings are highly effective against a wide spectrum of microorganisms including antibiotic resistant bacteria such as VRE and MRSA.

**15**

years of
research



More
than **25**

peer reviewed
manuscripts published

**30**

patents
worldwide

Efficient, Rapid and Sustained Results

Case studies of the proven effect of copper-based dressings

78 year old diabetic female patient

Suffered from sepsis bacteremia and necrotizing fasciitis emanating from midfoot Charcot-neuroarthropathy, deformity, ulceration and necrotizing fasciitis. Underwent deep debridement, including necrotic dorsalis Pedis artery.



Wound condition post-operation



Beginning of treatment with MedCu copper oxide dressings after 3 days of Milton treatment



8 days of treatment with MedCu copper oxide dressings resulted in significant granulation despite lack of dorsal foot artery



12 days of treatment with MedCu copper oxide dressings. Intense encouraging granulation tissue can be seen

40 year old insulin-dependent diabetes mellitus (IDDM) female patient

6-years old non healing wound following a trans-metatarsal amputation, despite conventional treatment with various dressings and occasional infectious episodes. In 2019 wound was 7mm deep with surrounding furrow.



6 year old chronic wound

following amputation (2013)



Beginning of treatment with MedCu copper oxide dressings. Wound size was 10x12mm on the surface, 7mm deep with surrounding ~5 mm furrow



7 days of treatment with MedCu copper oxide dressings reduced wound volume by approximately 90%



42 days of treatment with MedCu copper oxide dressings led to complete closure of wound

Sustained release of copper ions endows the dressing with potent wide spectrum antimicrobial properties

23 year old male patient with renal failure on dialysis

Presented with necrotizing fasciitis from infected dialysis shunt. Necrotic and oozing tissue treated initially with silver dressings; wound was not affected.



Beginning
of treatment with MedCu copper oxide dressings



14 days
of treatment with MedCu copper oxide dressings



21 days
of treatment with MedCu copper oxide dressings. Wound ready for skin grafting

60 Year old non-insulin-dependent diabetes mellitus (NIDDM) male patient

Open wound following first ray amputation. The wound was initially treated with two consecutive vacuum-assisted closure (VAC) sessions.



Beginning
of treatment with MedCu copper oxide dressings



14 days
of treatment with MedCu copper oxide dressings resulted in significant increase in tissue granulation



26 days
of treatment with MedCu copper oxide dressings dramatically decreased wound volume



74 days
of treatment with MedCu copper oxide dressings led to complete closure of wound

PROPERTY	COPPER	VS	SILVER
Antibacterial	✓		✓
Antifungal	✓		✓
Potent Antiviral	✓		✗
Essential element for human body	✓		✗
Positive effect on intact skin	✓		✗
Necessary part of balanced diet	✓		✗
Stimulation of angiogenesis	✓		✗
Production of extracellular matrix (ECM) skin proteins	✓		✗
Stabilisation of ECM skin proteins	✓		✗

SKU	Size (cm)	Number of Layers	NAPPI Codes	Absorption w/w	Units per Box
2C-0506-01	5x6	2	1048350001	750%	10
2C-1012-01	10x12	2	1048352001	1000%	10
2C-1020-01	10x20	2	1048353001	1000%	10
2C-2020-01	20x20	2	1048351001	1000%	10
2C-0505-01a	10x10 (5x5 pad)	2	1048354001	750%	10
2C-1025-01a	10x25 (5x20 pad)	2	1048355001	750%	10
3C-1012-01*	10x12	3	1173549001	800%	10

* available only in large quantities



Areas of Use

MedCu's wound dressings are easy to apply and remove, and are suitable for a wide variety of wounds including

- Diabetic Wounds
- Leg & Foot Ulcers
- Pressure Ulcers
- First and Second-Degree Burns
- Surgical Wounds

Benefits

- Strong protection against a broad spectrum of wound pathogens (including resistant bacteria)
- Easy adhering and removal
- Sustainable - can be used for up to 7 days
- Cutting option for optimal fit
- No need to prewett
- Cost effective compared to alternatives on the market

MedCu was founded by veterans in the biomed industry with a specialty in copper wellness bioactivities.

Why Copper?

As a natural essential mineral for the human body, copper has been used for centuries to care for and treat wounds.

Copper is safe, biocompatible, non-sensitizing and non-irritating to the skin. Today, antimicrobial wound dressings harness the power of copper to set a new standard in advanced care for acute, critical chronic wounds and surgical wounds.

Core Properties of Copper

WOUND & SKIN CARE



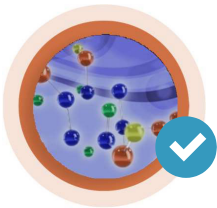
- Copper is an essential nutrient mineral in the body
- Stimulates production of collagen and other key skin proteins
- Stabilises skin layers
- Improves skin elasticity
- Improves look and appearance of skin

ODOUR CONTROL

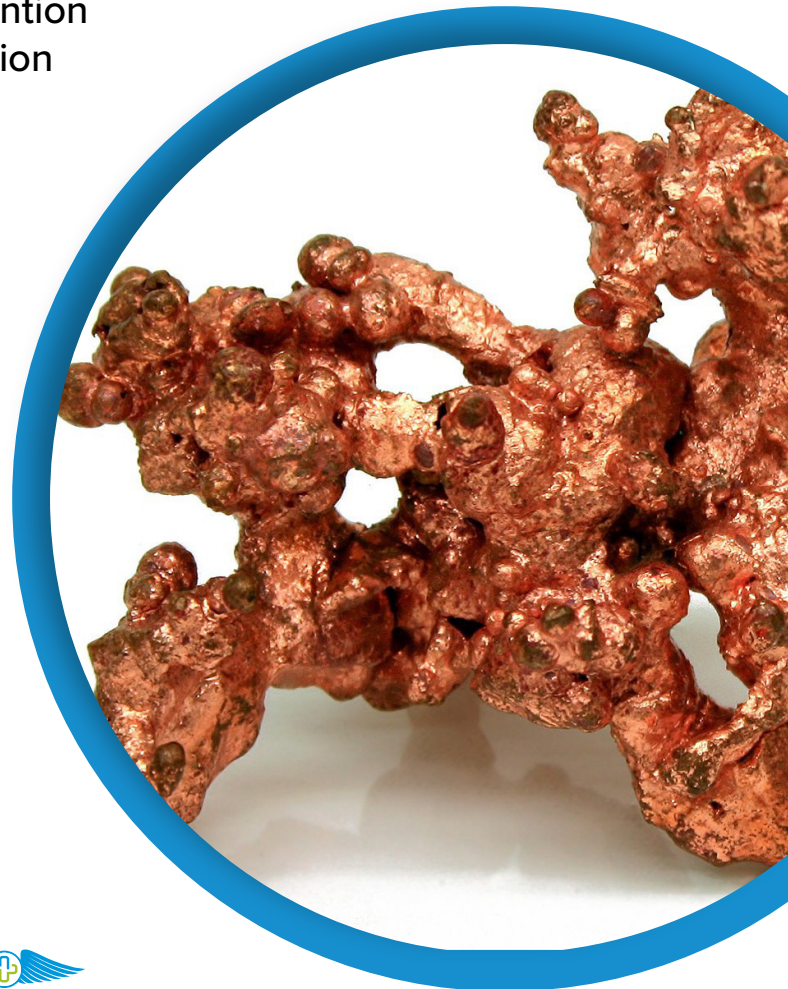


- Microbial odour prevention
- Human odour absorption

ANTIMICROBIAL



- Antibacterial
- Antifungal
- Antiviral



Facts About Copper

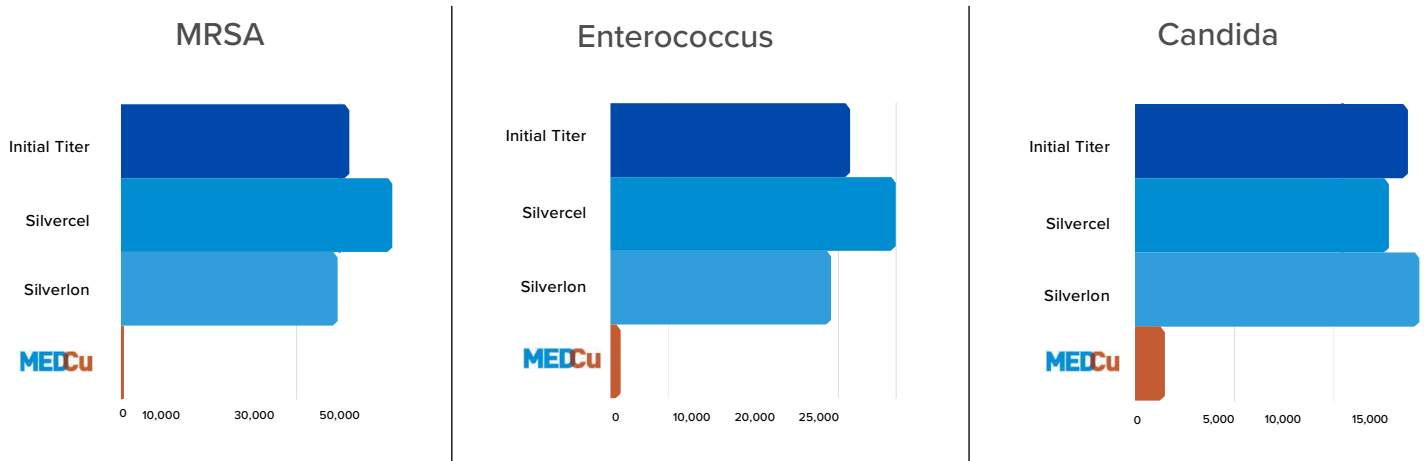
- Copper is one of the 11 essential trace elements the body needs
- The official recommended dietary allowance of copper for adults is 1mg/day
- Copper is antimicrobial (antibacterial, antifungal, antiviral)
- Copper stimulates production by dermal fibroblasts of collagen, elastin and other extracellular matrix (ECM) skin proteins
- Copper is essential for the production of growth factors needed for formation of blood capillaries

Copper Provides the antimicrobial properties of silver, plus offering added benefits.

PROPERTY	SILVER	COPPER
Antibacterial	✓	✓
Antifungal	✓	✓
Potent antiviral	✗	✓
Essential element for human body	✗	✓
Positive effect on intact skin	✗	✓
Necessary part of balanced diet	✗	✓
Stimulation of angiogenesis	✗	✓
Production of extracellular matrix (ECM) skin proteins	✗	✓
Stabilisation of ECM skin proteins	✗	✓



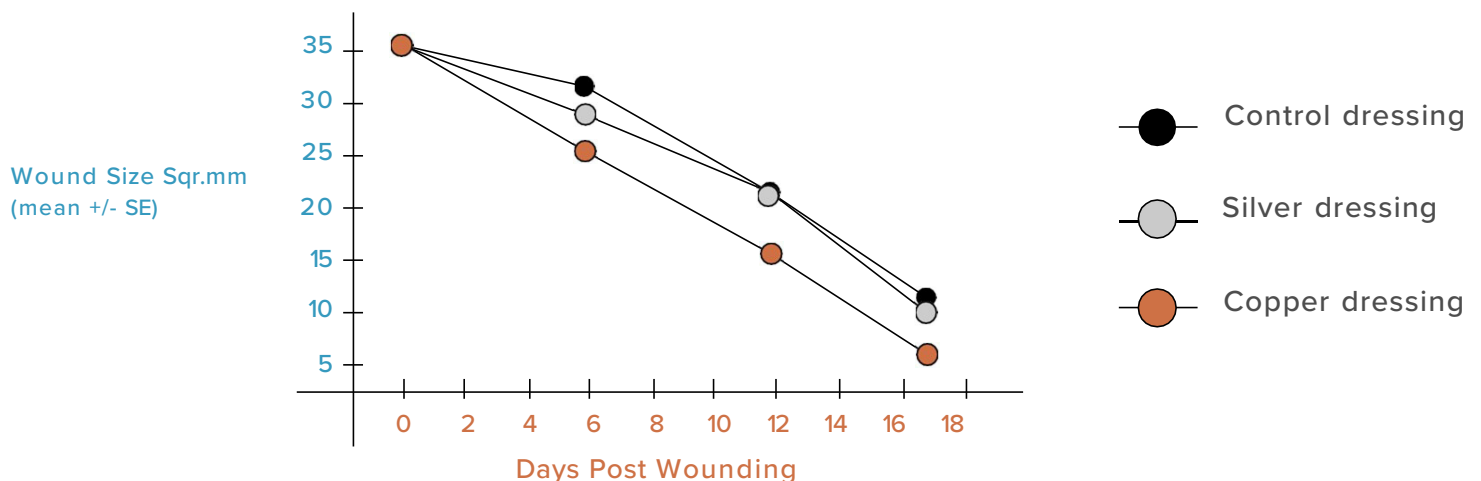
MedCu Copper dressings out-perform SOC Silver Dressings in antimicrobial efficacy comparison



ABOUT THE GRAPHS: Efficacy comparisons using AATCC 100 test method | Results after 1 hour incubation at 37° celcius.

Antimicrobial efficacy comparison between copper and silver dressings - wound size

- Antimicrobial properties help prevent infection to allow for wound healing to occur unimpeded.
- This study demonstrated how wounds covered with copper dressings healed faster than those covered by silver/control dressings.



Borkow et al. Wound Repair and Regeneration (2010) 18:266-75

CASE STUDY

Necrotizing Fasciitis Arm Ready For Skin Grafting

Patient BN suffered with loss of skin and subcutaneous tissue due to necrotizing fasciitis of the forearm and wrist.

- After one week of applying silver-based dressings, the wound had pale granulation tissue with extensive fibrin and necrotic tissue.
- The clinic plan was changed to applying MedCu copper dressings. After two weeks of MedCu copper dressings application large islands of red granulation tissue replaced the necrotic and fibrinous rissue.
- After three weeks of MedCu application, the wound was full with dense red granulation tissue and ready for skin grafting.



Upon arrival at the clinic and after silver dressings



2 weeks with copper dressings



3 weeks with copper dressings, ready for skin graft

CASE STUDY

Venous ulcer infected with multidrug-resistant bacteria

Patient arrived at the clinic with a non-healing wound on the interior aspect of the distal right leg, which had been treated previously with many wound dressings, including silver sulfadiazine. Wound cultures revealed a biofilm layer with multidrug resistant *Escherichia coli* colonising the wound.

Wound underwent conservative desloughing and wound bed preparation. The wound was then covered with the MedCu copper dressing, which was changed every two to three days.

After seven days of applying the MedCu copper dressings, dramatic improvement was seen. A follow up bacterial culture was found to be negative, and there was a drastic reduction in edema and intense granulation tissue formation.



Upon arrival at the clinic and after silver dressings



Day 2 with copper dressings



Day 5 with copper dressings



Day 7 with copper dressings, ready for skin grafting

Copper will change the way you think about wound care

- MedCu's copper dressings are creating a revolution in wound care.
 - With better protection than silver against pathogens, 7 day wear-time allowing for fewer changes, and irritant-free biocompatibility.
 - MedCu is the first and only copper impregnated dressing to receive FDA and CE clearance.
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- ✓ Bacterial barrier protects against a broad spectrum of wound pathogens.
 - ✓ Non-sensitising and non-irritating, biocompatibility.
 - ✓ Easy adhering and pain free removal.
 - ✓ Safe for use throughout the entire wound care process.
 - ✓ 7 day wear-time, allowing for fewer changes.
 - ✓ Can be used on chronic, acute, and surgical wounds.
 - ✓ The 1st and only copper dressings with FDA & CE clearance.



MedCu FAQ & Information

COMPOSITION

MedCu copper dressings are 2- or 3-layer sterile, non-adherent wound dressings. They consist of an internal absorbent layer with copper oxide and external non-adherent polypropylene layer(s) containing copper oxide. Some models feature an adhesive contour.

INDICATIONS

Prescription (Rx only) use for various wounds: Partial and full thickness wounds, pressure ulcers, diabetic ulcers, burns, surgical wounds, vascular access sites, and more.

WOUND PREPARATION

- Cleanse and dry peri-wound area thoroughly.
 - Debride necrotic tissue if needed.
 - Hydrate wounds with low or no exudate per facility protocol.
 - Treat infection as per facility protocol.
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DRESSING APPLICATION

- Choose appropriate size and form dressing.
 - Peel-open sterile pouch.
 - Apply per instructions based on the dressing type (2- or 3-layer, with or without adhesive contour).
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DRESSING CHANGE FREQUENCY

Change when the dressing is saturated with wound exudate, condition, and clinician considerations. MedCu dressings may remain for up to 7 days, with a maximum 30-day usage. The 30 day limitation is only per FDA in the US. There is no limitation for the total duration elsewhere (including SA) as the CE mark is used.

SILVER TO COPPER TRANSITION

Copper dressings demonstrate superior antibacterial efficacy compared to silver, as confirmed by AATCC TM 100. MedCu is the only copper dressing FDA and European regulatory bodies have cleared for clinical use.

SAFETY AND SIDE EFFECTS

Extensive safety studies, including acute toxicity, chronic toxicity, skin irritation, and more, validate MedCu's wound dressings safety. Used clinically for over 4 years with no recorded adverse reactions.

STERILITY AND DRESSING CHANGE PROCESS

Dressings are sterile and changed based on saturation. Removal process is detailed for adhesive and non-adhesive dressings on packaging.



MedCu FAQ & Information

LOCAL SIDE EFFECTS

Copper does not cause coloration or skin issues. MedCu uses the same technology as Cupron's copper oxide impregnated consumer products with over 15 years of safe use worldwide.

STERILITY AND EXTERNAL CONTAMINATION

All models serve as an antibacterial barrier due to the copper oxide. The adhesive contour serves also as a physical microbial barrier.

STORAGE

Store dressings at room temperature.

COPPER ION MECHANISM

Cuprous oxide microparticles in both layers serve as a reservoir for copper ions. These ions are released in the presence of skin humidity and wound exudates.

ANTIBACTERIAL MECHANISM

Copper dressings absorb wound exudates, killing bacteria with released copper ions. Demonstrated efficacy for more than 4 logs of bacteria immediately and sustained for 7 days.

ION RELEASE DURATION

Data supports ion release for at least 7 days, aligning with dressing usage duration. Expiration date is 3 years from production, and is marked on the box as well as the pouch

BACTERIAL DISPERSION CONTROL

Dressings can absorb 8-10 times their weight, entrapping bacteria. Changing the outer padding is possible without changing the copper dressing on the wound for aesthetic reasons.