COPPER DRESSING: MUCH MORE THAN AN ANTIMICROBIAL

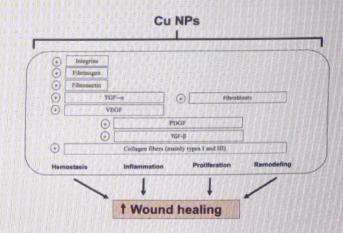
Dott. Corsi A, Inf. Forma O, Responsabili Unità Semplice di Vulnologia, Ospedale San Raffaele (MI)

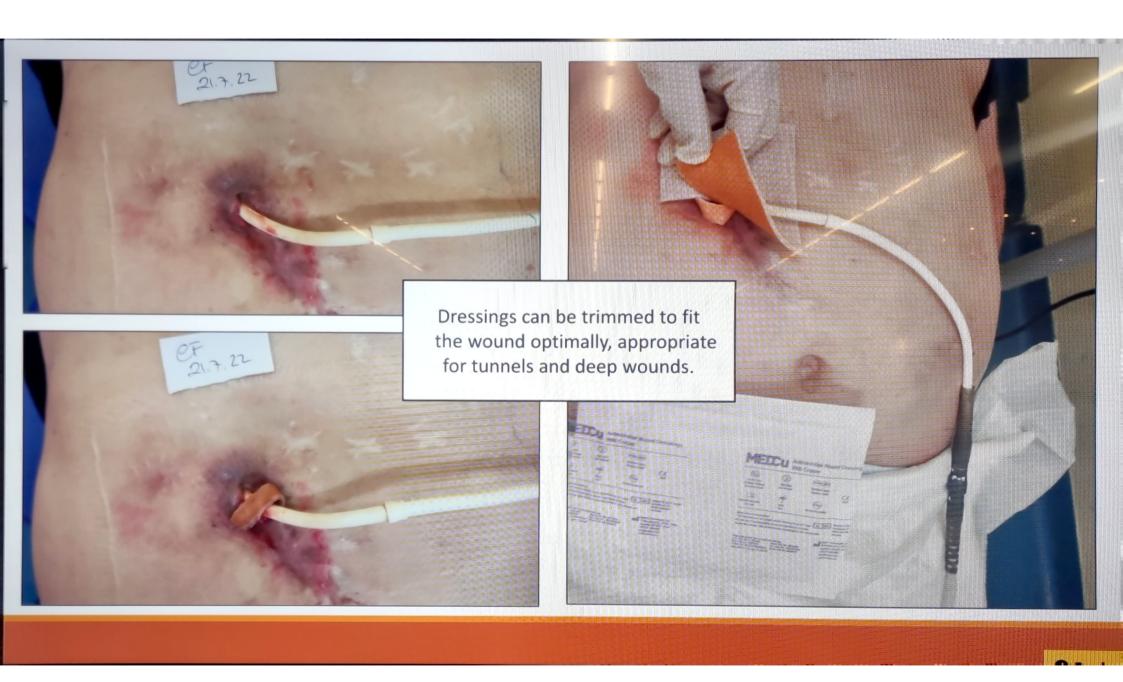
Inf. Vidotto G vidotto.giulia@hsr.it, Lupi S, Inf. Aloise A, Inf. Bertulli G, Inf. Cazzarò U, Inf. De Angelis G, Inf. Ognibene L,

Inf. Infermieri Esperti in Wound Care, Ospedale San Raffaele (MI)

Copper dressing properties

- Broad spectrum biocidal effect: MRSA, Vancomycin resistant Enterococci VRE, fungi and viruse.
 Significant reductions in bacterial colonisation on copper surfaces.
- Haemostatic effect: Platelet-derived growth factor(PDGF) stimulation
- Antioxidant effect: Superoxide dismutase SOD decreases reactive oxygen species generation and oxidative stress
- Angiogenesis stimulator: effect of copper binding on the biological activity of Angiogenin ANG and Vascular Endothelial Growth Factor (VEGF) in endothelial cells
- Matrix metalloproteinases (MMP) balance: metal-mediated activation of membrane receptors
- Wound healing:
 - · Collagen tipe I, II and V stimulation
 - Remodeling of the extracellular matrix: formation of aldehyde cross-links on collagen and elastin
 - Epithelialization and keratinocytes: copper affect the expression of integrins involved during the final healing phase

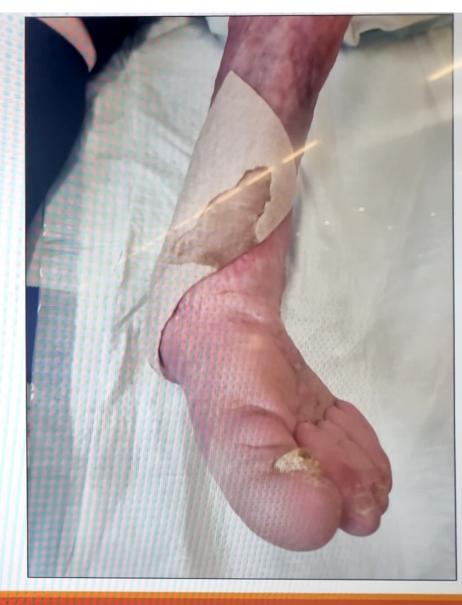








Copper dressing: internal absorbent layer and one or two external non-woven, non-adherent layers. All layers are impregnated with copper oxide particles. Efficient non-adherent and pain free removal. The dressing doesn't release exudate under pressure.



Chronic wound: The dressings are nonirritant, non-sensitizing, they guarantee protection of dry and fragile periwoudskin.





Salvo J., Sandoval C. (2022). Role of copper nanoparticles in wound healing for chronic wounds: literature review. Burns Trauma, 10:tkab047.