



665 Northland Avenue
Buffalo, NY 14211
garwoodmedicaldevices.com
716.322.3222 PHONE

BioPrax™ - A Transformational Treatment for Implant Biofilm Infections

34% of patients die within 5 years from the development of a knee or hip implant infection¹. This antibiotic resistant chronic disease kills more than four of the most common cancers in America. As more Americans look towards modern medicine to improve mobility, this staggering statistic is a darkening cloud on the horizon that requires immediate action.

The standard of care (SOC) for implant related infections requires two surgeries. The first begins with the devastating removal of the original implant and placement of a cement spacer in the knee space. Due to the resilience of the bacterial infection, many survivors never make it to the second surgery or do so only to have the infection resurface. This can lead to amputation, bone fusion or death.

Garwood Medical is currently developing BioPrax™, which we expect will revolutionize the treatment of prosthetic joint infections. BioPrax was granted FDA Breakthrough Device Designation in 2019 for our first indication, treatment of knee implant infection. Better than the two-stage revision, BioPrax is a single surgery solution used alongside a washout procedure with debridement (DAIR). *Our goal is to have patients retain their implant.*

BioPrax not only has the potential to improve patient outcomes but also reduce the economic burden of prosthetic joint infection. Additionally, BioPrax has the potential for both treatment and prevention of infection on virtually all metallic implants.

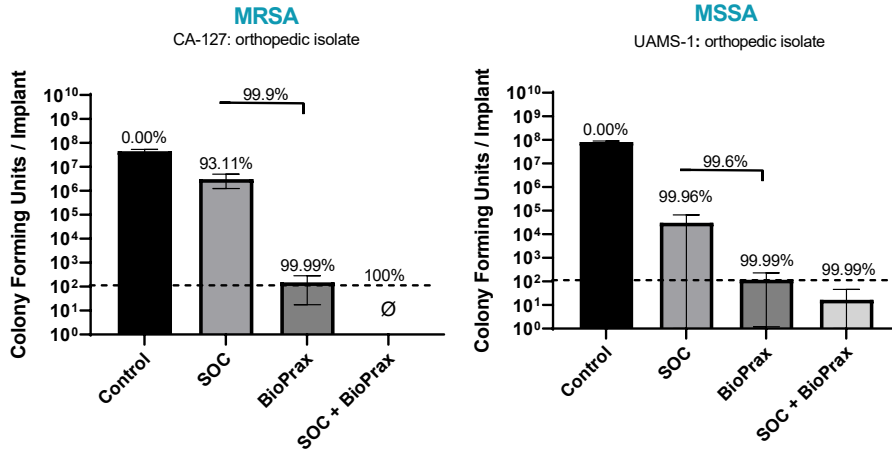
How it works:

Our ground-breaking BioPrax treatment creates an electrochemical reaction on the full surface of metallic implants, causing the production of hydrogen peroxide and hydroxide ions. This raises the pH to a bactericidal level in a microenvironment around the implant breaking up the biofilm and killing bacteria. BioPrax has the unique ability to attack the infection from the surface of the implant, from underneath the bacterial biofilm. One's immune system and antibiotics will continue to attack the bacteria from the outside, leading to a great synergistic impact.

¹Is Treatment of Periprosthetic Joint Infection Improving Over Time? Chi Xu, Javad Parvizi, et. Al. The Journal of Arthroplasty 35 (2020) 1696-1702

BioPrax for Infection Treatment

*note no antibiotics used, uncemented implants

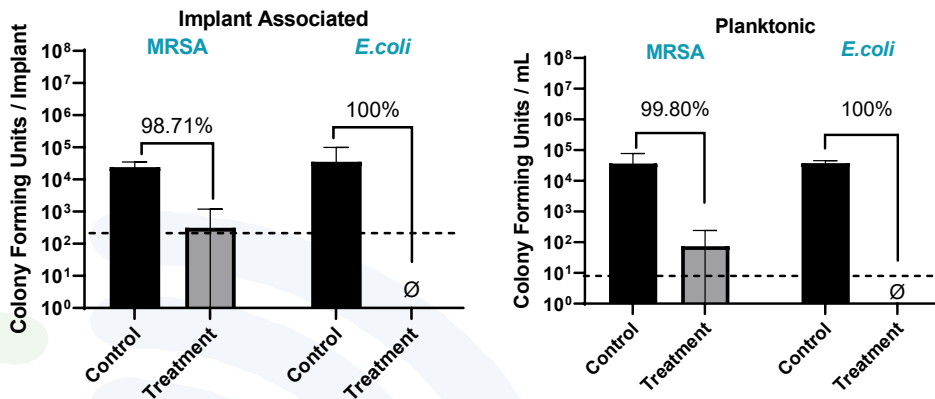


Above are results of *in vitro* testing that show the bactericidal effects of BioPrax on two different *Staphylococcus aureus* isolates, (A) MRSA and (B) MSSA, when compared to the standard of care (a 10% betadine irrigation). **BioPrax alone kills up to 99.9% more bacteria than the standard of care 10% betadine washout.**

The versatility of BioPrax will allow the technology to migrate to other implants, as well as prophylactic use. Preventative use of BioPrax will allow surgeons to block infections before they have a chance to take hold. This exciting future will allow patients, presently considered too high risk for implants, to receive life altering prosthetics.

BioPrax for Infection Prevention

*note: no antibiotics used



Biofilm infections are currently considered to be all but incurable, requiring implant removal. BioPrax offers the very exciting potential to fundamentally shift how biofilm infections are perceived, treated, and prevented.

BioPrax™ is still under investigation by the FDA and is not available for use in the United States.

We are always looking to make new connections. If you are interested in learning more about BioPrax™, please reach out to Wayne Bacon, CEO
wbacon@garwoodmedical.com 716.570.7700