

This article originally appeared in the June, 2023 issue of Aesthetic Insights™.

The full issue can be read at: <https://bit.ly/ai-zwave-biesman>



Versatile Acoustic Shockwave Device Delivers Enhanced Results

Z Wave (Zimmer MedizinSystems, Irvine, Calif.) is a type of radial pulse shockwave therapy device that can help reduce patient recovery time and sometimes improve outcomes following surgical and non-surgical aesthetic procedures. It uses radial sound wave technology (RSWT), also called acoustic shockwave, in which high-energy acoustic waves spread radially beneath the skin's surface, targeting swollen or damaged soft tissue. The body responds to these acoustic waves with enhanced metabolic activity, including lymphatic drainage and increased blood flow.

The *Z Wave* product line incorporates Soft Shot Technology, which uses a projectile with five times greater mass than pneumatic shockwave systems. The greater mass allows the same force to be transmitted to the tissue with five times less acceleration, resulting in a softer pulse and a more comfortable patient experience. *Z Wave* treatments will not damage the skin and are well-tolerated by patients, and usually more comfortable than most energy-based procedures.

Combining the device with other aesthetic procedures can enhance its effectiveness, besides working well on its own. For example, many practitioners use *Z Wave* after CoolSculpting fat reduction procedures. CoolSculpting works by applying controlled cooling to target and freeze fat cells, which the body eliminates naturally. However, sometimes stubborn fat pockets may remain or the treatment may not provide the preferred level of skin tightening. Practitioners introduce *Z Wave*'s acoustic shockwave therapy post-treatment to address these concerns, where it can stimulate the lymphatic system, increase the removal of cellular waste products, and improve fluid circulation. It can also enhance skin elasticity and tightness when skin laxity or mild sagging is an issue after CoolSculpting procedures.

According to Brian Biesman, M.D., an oculofacial plastic surgeon in Nashville Tenn., “Years ago, data came out suggesting that manual massage of the treatment area as soon as we removed the CoolSculpting applicator could enhance efficacy. Then, I heard that *Z Wave* is a good adjunctive treatment after CoolSculpting treatments, and we started using it. Standardization of that effort with *Z Wave* made a meaningful difference for us, as opposed to just using manual massage. *Z Wave* really is very successful in our practice, and became a standard of care. We no longer give our CoolSculpting patients the option, we just include it as part of our standard treatment.”



Brian Biesman, M.D.

The device is also used to treat cellulite, he added, by addressing the underlying structural elements that contribute to its appearance. “The shockwaves penetrate the subdermal skin layers, disrupting the cellulite. The powerful *Z Wave* pulses are believed to break down cellulite's fibrous connective tissue. This expedites the extrusion of fatty acids into the blood for natural elimination. I feel the *Z Wave* is a good option for the temporary improvement of cellulite, for people that will undergo regular treatments. I think it makes a meaningful difference.” The shockwaves also increase blood circulation and the production of new collagen to further support the skin's structure and appearance.

In addition, *Z Wave* has emerged as a potential treatment option for erectile dysfunction (ED). “It's not an indication that we include in our facial aesthetic practice's menu of services, but I've used *Z Wave* to treat ED in a couple of cases, and with favorable results,” said Dr. Biesman. Applying acoustic shockwaves to the penile tissue should stimulate neovascularization and improve blood flow, resulting in increased oxygen supply and nutrient delivery to penile tissue.

“I think that both cellulite and erectile dysfunction are actually very strong applications for the *Z Wave* technology,” he added. “Overall, I think it's a very versatile device depending on your practice and your goals. It has some solid indications for our practice and is supported by an awful lot of clinical experience. You can't undervalue the fact that the device is extraordinarily safe and effective. It is a great tool to have.”