VOLNEWMER's Bulk Heating: Less Pain, More Collagen

Dr Minjung Son, Dan Clinic, Changwon

VOLNEWMER achieves **uniform bulk heating within the dermis** while safely protecting the epidermis through its **water-based cooling system and single-pulse delivery**.
Dr. Minjung Son of Dan Clinic Changwon recommends VOLNEWMER as a **preemptive anti-aging energy-based device (EBD) suitable for all age groups**, based on her clinical experience of immediate skin tightening, progressive improvement in skin quality through collagen remodeling at 2–4 weeks post-treatment, and visible reduction of wrinkles along the marionette lines, jawline, and periorbital area.

Furthermore, she proposes a strategy to **maximize skin rejuvenation** by combining VOLNEWMER with collagen boosters, enabling both **collagen remodeling and neocollagenesis**.
In this interview, Dr. Son shares practical insights into operating VOLNEWMER, including the clinical significance of water-based cooling and single-pulse technology, as well as patient selection strategies.

How did you first encounter VOLNEWMER, and what was your initial impression?

At our clinic, we primarily use original monopolar RF devices for lifting and tightening treatments. However, some patients began to experience 부담—both in terms of pain and cost. This created a demand for a new device that could deliver effective skin tightening more efficiently and comfortably.

That was when we decided to demo VOLNEWMER, Classys' monopolar RF device. What stood out immediately was its **exceptional ease of use**. The device is ergonomically designed, making the procedure significantly more comfortable for the practitioner. The handpiece is notably lightweight, and the contact surface is designed with a **convex shape**.

Since the face is composed of complex curves rather than flat planes, a well-designed tip reduces wrist strain for the practitioner while ensuring **consistent and uniform energy delivery** throughout the treatment area.

Which patient population is best suited for VOLNEWMER?

Aging is inevitable, and in that sense, **all patients in their 30s and older** can be considered suitable candidates for VOLNEWMER. It is particularly ideal for patients who fear pain or prefer a more comfortable treatment experience.

Some patients may choose to undergo original monopolar RF treatments once a year. However, for those who prefer **more frequent yet gentler maintenance treatments**, VOLNEWMER offers significantly higher satisfaction. Its low pain level, quick return to daily activities, and suitability for long-term maintenance are its greatest strengths.

What is the clinical significance of VOLNEWMER's water-based cooling system?

Whenever I consider introducing a new device, I thoroughly compare and test multiple systems. At that time, I evaluated various monopolar RF devices side by side. VOLNEWMER met several critical criteria.

First is **commercial viability**—whether the treatment can be offered at a price point acceptable to patients while delivering satisfaction proportional to its efficacy.
Second is **clinical effectiveness**. No matter how good the design or interface may be, it is meaningless without solid clinical outcomes.
Third—and most importantly, is **safety**. Even if 99 patients experience excellent results, a device cannot be trusted if even one patient experiences a serious adverse event.

In multi-physician clinics, differences in hand sensation and treatment technique are inevitable. Under such circumstances, device stability and safety become even more crucial. From this perspective, VOLNEWMER's **circulating water-based cooling system** was particularly impressive.

By continuously circulating cooling water at a consistent temperature, VOLNEWMER enables **stable and uniform epidermal protection** while allowing reliable heat delivery deep into the dermis.

While many RF devices have adopted similar structures or cooling concepts, VOLNEWMER introduces a new paradigm with its **circulating water-cooling mechanism**. In actual use, I found that heat energy is delivered deeply and evenly, resulting in both reduced pain and enhanced treatment efficacy.

Initially, I had my doubts. Most traditional monopolar RF devices rely on aggressive contact cooling using subzero refrigerant sprays. VOLNEWMER, by contrast, circulates cooling water at approximately **12–20°C**. I questioned whether this temperature would be sufficient.

However, after discussing with colleagues and performing treatments myself, I confirmed that water-based cooling allows adequate dermal heating while preventing excessive epidermal cooling. Overcooling the epidermis can actually hinder deep heat penetration, reducing treatment efficacy.

VOLNEWMER strikes an ideal balance—**protecting the epidermis while sufficiently heating the deeper dermal layers**. This, in my view, is its greatest strength.

Have you experienced any serious adverse events during treatment?

Not a single case. Occasionally, mild transient swelling or erythema may occur immediately after treatment, corresponding to a **first-degree burn level** at most. With prompt communication and appropriate cooling or soothing care, these reactions resolve quickly.

Clinically significant adverse events have not been observed. This does not mean that refrigerant-based monopolar RF devices are inherently unsafe—our clinic also uses other monopolar RF devices without complications. However, I have heard of cases where excessive instantaneous cooling caused adverse effects.

If refrigerant spray is too strong or if hand movement causes brief loss of skin contact, cooling may become uneven, increasing the risk of localized frostbite or epidermal burns.
VOLNEWMER's water-based cooling system is highly stable, providing predictable and reliable treatments for practitioners while ensuring patient safety.

Does the cooling method significantly affect pain management and patient satisfaction?

Absolutely. I am currently preparing a conference presentation on **"Technological Evolution and Trends in Lifting Devices Over the Past Decade."** Through this work, I've observed a clear shift in

patient priorities.

In the past, patients focused primarily on treatment efficacy. Today, the question has become: *"Is this device comfortable and suitable for me?"* Treatment experience is now just as important as clinical outcomes.

VOLNEWMER can often be performed **without topical anesthesia**, with minimal discomfort. This greatly enhances patient satisfaction and contributes positively to revisit rates.

From the practitioner's perspective, reduced patient pain also alleviates psychological pressure. Lifting and tightening treatments require sufficient energy delivery, but when patients experience pain, maintaining optimal settings becomes difficult. With VOLNEWMER's low pain response, treatments can be performed using **stable and effective energy parameters**.

What is your perspective on VOLNEWMER's single-pulse technology?

VOLNEWMER's single-pulse delivery is closely linked to its water-based cooling system. Devices that rely on aggressive refrigerant cooling often use **multi-pulse delivery**, dividing the total energy into multiple pulses to repeatedly cool the epidermis between shots.

Because VOLNEWMER provides continuous cooling through circulating water, the epidermis remains protected throughout the procedure. This allows safe and effective **single-pulse energy delivery**, enabling continuous and uniform heat transfer without additional cooling intervals.

From a bulk heating perspective, delivering energy in a longer, continuous pulse may be more advantageous than dividing it into multiple short pulses. This is a clear example of how advancements in cooling technology can fundamentally change energy delivery strategies.

Do you apply the concept of "resting time" during treatment?

Yes. A useful analogy is grilling meat—if heat is applied too intensely to one side, the surface burns while the inside remains undercooked. Allowing time for heat to distribute evenly is essential.

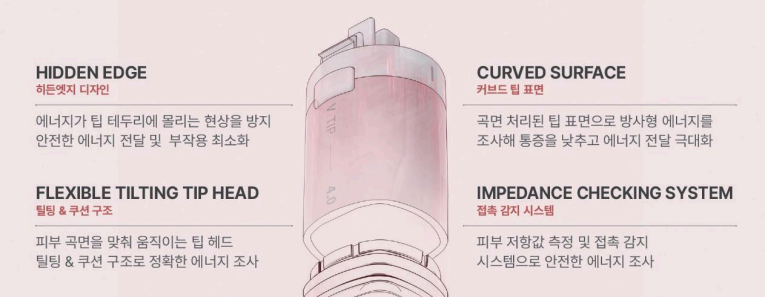
Similarly, the skin requires a **resting time** for thermal diffusion. For example, when delivering 600 shots, I do not apply all 300 shots consecutively to one side. Instead, I alternate: 150 shots on the right, 150 on the left, then repeat.

This alternating approach prevents excessive heat concentration, minimizes thermal damage, and improves patient comfort. Clinically, it tends to produce superior improvements in skin elasticity and texture.

Interestingly, I did not consciously emphasize this approach with other monopolar RF devices. With VOLNEWMER, however, I naturally adopted this sequential and alternating technique—perhaps unconsciously gravitating toward the most effective method.

Is there a particularly memorable clinical case?

One memorable case involved a woman in her 60s who visited our clinic one month before her



daughter’s wedding. She had never undergone any aesthetic procedures and was extremely anxious about pain and the treatment process.

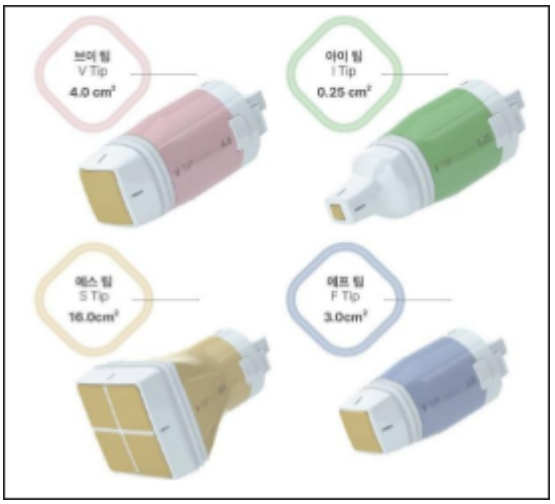
Using VOLNEWMER, we were able to perform the treatment comfortably with minimal discomfort. Afterward, we added supplementary lifting and tightening procedures. When she returned after the wedding and told me that people had commented on how youthful she looked, I felt deeply fulfilled as a clinician.

This case illustrates that VOLNEWMER is highly effective even for patients in their 60s and beyond. It can be applied regardless of age. From the 30s onward, performing lifting and tightening treatments as part of a **regular maintenance regimen** can significantly slow the aging process. I typically recommend treatments every **3–6 months** as a core strategy for preventive anti-aging.

Are there combination treatments that show particularly strong synergy?

Skin aging is driven by two primary factors:

1. A decrease in the **absolute amount of collagen**, and
2. Structural deformation and disorganization of the remaining collagen.



VOLNEWMER primarily promotes **collagen remodeling**, addressing the latter issue by reorganizing and restoring existing collagen structures. Collagen booster treatments, on the other hand, stimulate **new collagen synthesis**.

When combined, VOLNEWMER restructures existing collagen while boosters activate neocollagenesis, resulting in simultaneous improvement in **skin density and elasticity**.

What immediate and long-term changes do patients experience?

Immediately after treatment, patients may experience mild swelling, erythema, or warmth due to thermal stimulation—typical RF responses. At the same time, many notice an **immediate lifting effect**, often described as a tightening sensation when looking in the mirror.

Between **2 and 4 weeks**, active collagen remodeling begins within the dermis. The skin gradually becomes firmer, more elastic, and smoother in texture. Around one month post-treatment, patients frequently comment that their skin looks “younger” or more refined.

The most satisfying improvements are typically observed along the **jawline and marionette lines**. Fine wrinkles around the eyes also respond well to subtle thermal stimulation, and the availability of a dedicated periorbital tip allows for safe treatment in this area.

Have you observed effectiveness in non-facial indications?

Yes. One particularly interesting case involved a patient with abdominal skin laxity and stretch marks. She had delivered twins over ten years ago and, despite being

slim, had thin, wrinkled abdominal skin.

Given the limited effective options for this condition, we combined VOLNEWMER with collagen booster treatments. After two to three sessions, we observed a marked improvement in skin elasticity and texture. The before-and-after comparison was striking.

This case demonstrated that VOLNEWMER has strong potential beyond facial applications, including **body tightening and stretch mark improvement**. It is an area I am eager to explore further.

Live Treatment Protocol

I begin by using the **V-tip** to contour the submental area and define the jawline. Energy is then delivered progressively to allow gradual heat accumulation, typically using a **stacking technique**.

After delivering a set number of shots to one side, I move to the opposite side, ensuring uniform dermal heating while preventing excessive surface temperature rise. VOLNEWMER also allows **moving techniques**, where energy is delivered smoothly along facial vectors, following natural contours to achieve broad tightening effects.

While each practitioner has personal preferences, I favor stacking over moving techniques. Moving treatments are faster and more convenient, but I believe stacking provides more precise energy delivery to target areas, ensuring predictable and stable outcomes.

Energy is typically set around **level 2.5–2.55**. The key objective in monopolar RF is to raise dermal temperatures above **55°C** in a controlled manner. For a full-face treatment, approximately **600 shots** are used; for localized areas such as the jaw or cheeks, **300–400 shots** are sufficient.

Throughout the procedure, **temperature monitoring is critical**. Heat accumulation varies by skin type, so energy settings must be adjusted carefully based on tissue response rather than applied uniformly.