

The Power of the Pulse:

6 Reasons Why Pulse Count Matters with BBL® HERO

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Sciton's next generation BroadBand Light™ (BBL®) ushers in a new era of skin revitalization with the novel game-changing BBL HERO technology. BBL HERO, which stands for High Energy Rapid Output comes with increased speed, shortened pulse width, higher peak power, and enhanced cooling diminishing the risk of adverse events, such as striping and stamp marks. This technology allows practitioners to move the handpiece fluidly in a motion technique, eliminating the need to stamp. BBL HERO has made treating face, hands, arms, legs, back and chest far easier with more reproducible and patient-pleasing results than ever seen before with traditional BBL and other Intense Pulsed Light devices (IPL).

After years of teaching fellow practitioners how to optimally use BBL, I have come to appreciate the importance of pulse count as the great differentiator between a mediocre result and a remarkable result. Other parameters, such as filter, fluence, pulse duration and cooling temperature of the crystal are important factors, especially for different skin types and clinical conditions. But these other parameters tell only part of the story when it comes to BBL HERO. When these parameters are consistent from treatment to treatment what really distinguishes an okay result from an exceptional result is the total pulse count.

Being mindful of the pulse count as the treatment end point for each area being treated not only makes learning how to do BBL treatments easier but also improves the clinical result making the BBL HERO treatments more predictable, reproducible and consistent. For example, a patient coming in for a subsequent maintenance treatment one to three months after their last treatment often asks for the same treatment as the last time because they loved the smoother, clearer quality of their skin. If the exact same parameters are used but the total pulse count is half of the previous treatment, patients will not experience the same textural improvement that they achieved previously. In addition, when the pulse count is recorded it becomes easier to duplicate the result, and improve treatment efficacy by changing the number of pulses during subsequent treatments. This is especially important for BBL HERO since the endpoints observed are different and frequently milder than endpoints seen with other IPL devices or with more traditional BBL treatments.

One of the big advantages of BBL HERO is the ability to deliver four times as many pulses per second than traditional BBL. To fully utilize this feature, practitioners need to know the optimal pulse counts for different areas being treated. For example, the total number of pulses for a full-face treatment for a woman with the traditional BBL technology and the "stamping technique" would be 250 to 350 pulses and with BBL HERO would be 1,150-1,250 pulses.

The difference between BBL and BBL HERO for a full-face treatment is not so much a faster treatment, but a greater degree of textural improvement with overall smoother, tighter, less wrinkled appearing skin. This textural improvement is also seen on the body when treated with BBL HERO and enough pulses. It is this visibly smoother and tighter appearing skin seen with the new BBL HERO that patients have enthusiastically commented on as being so much better over other IPL and traditional BBL treatments.

I feel so strongly about the power of the pulse count as a valuable treatment parameter that I have documented the 6 reasons why pulse count matters. Treating by pulse count helps even new practitioners just starting to use BBL HERO to achieve the results of a highly experienced BBL HERO user.

BACKGROUND

I was among the authors who first reported on the powerful rejuvenating effects from Sciton's original BBL, which is part of the JOULE® platform and uses visible and infrared light (400 to 1400 nm).

Jason Pozner, MD, and I reported in a study published February 2013 in Restorative Aesthetic Therapy, a supplement to Cutis, that patients who maintained a regular annual or biannual regimen of BBL treatments over 5 to 11 years could reduce and delay the long-term signs of skin aging.

That same year, I along with Stanford University researchers, published a study in the Journal of Investigative Dermatology Open <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3547222/>, which concluded that BBL treatments could restore the gene

expression pattern of photoaged and intrinsically aged human skin to resemble young skin. The protocol used the traditional stamping technique with BBL. Forearms were treated with two passes averaging around 150 to 200 total pulses with the large crystal (15 mm X 45 mm) at each treatment. With BBL HERO, I now typically use 350-450 pulses to treat a forearm. Because BBL HERO results leave skin even younger-appearing than the results with traditional BBL, I would speculate that there may be an even greater degree of gene revitalization with BBL HERO than BBL.

Even before BBL HERO's launch, the original BBL made its mark as being different than IPL. BBL has a dual lamp technology; precise, controlled cooling; a single handpiece with quick-change smart filters that make it easy to switch from treating vascularity to pigment, for example; as well as finesse adaptors to easily target and treat smaller areas.

Today's new BBL HERO is a gamechanger compared to even its predecessor BBL. With a pulse rate four times faster treating at up to 4 Hertz, increased peak power and shortened pulse duration (as low as 3 milliseconds), and enhanced cooling in the handpiece to allow the flashlamps to pulse faster without the crystal getting too hot BBL HERO is a more powerful, faster, more predictable and enjoyable device to use than ever before.

BBL HERO is an upgrade on Sciton's JOULE or mJOULE™ platform.

HOW TO USE BBL HERO TO ACHIEVE 'WOW' RESULTS: THE 6 BIG REASONS TO PAY ATTENTION TO PULSE COUNTS

- 1. Better results.** Higher pulse counts mean better results, but you must know how high to go. With BBL HERO, we can treat a face with 1,150-1,250 pulses. Pulse counts with the original BBL was from 250 to 300 pulses to treat the face. The difference with the higher pulse count is dramatic when it comes to overall skin texture, pore visibility, skin smoothness and tightness. All the BBL HERO user needs, is to know the number of pulses required to get that dramatically better result.
- 2. Pulse count as an endpoint is easier to learn and easier to master.** When I am teaching practitioners how they can achieve Wow! results with BBL HERO on the face, neck, chest or elsewhere, I include the number of pulses needed according to area treated and indication. As opposed to the subjective assessment of treatment erythema, the pulse count now becomes the endpoint. The recommended pulse count on the chest might be 600-700 pulses, using 3 to 4 passes. That is the essence of what the practitioner needs to know in order to duplicate the results I achieve with BBL HERO, after a decade of experience using BBL technology.
- 3. Consistent results.** We all want to keep our patients happy. Using a similar number of pulses to treat an area and given indication will give you consistent results and will keep patients happy. The parameter most reliable for providing consistent results is the pulse count.
- 4. Results are easier to duplicate.** Practitioners who use pulse count as an endpoint know exactly how a patient was treated and can easily duplicate that treatment the next time the patient comes into the office. Knowing the pulse count is essential if there is more than one practitioner in an office who does BBL HERO treatments. Before I started documenting pulse counts, we noticed that my nurse practitioner and physician assistant were not achieving the same results as I was after using BBL. Our documentation showed that I used had dramatically higher pulse counts, which led to better results. Now we use pulse counts to guide us. The bottom line is if you know you did about 1,200 BBL HERO pulses on a patient's face and the patient loved how smooth her skin looked, you can duplicate that result at subsequent treatments. Or, if the patient said she did not see much difference with the first treatment, you can refer to the pulse count and change it accordingly to achieve more dramatic results at the next BBL HERO treatment.
- 5. Best practices are easily shared.** Using pulse count as an endpoint facilitates dialogue among practitioners. For example, if another practitioner shares that he or she has been getting great results treating patients' forearms with BBL HERO, one of my first questions is "How many pulses did you use?" The challenge is that many BBL practitioners do not pay attention to pulse count. I make the case that not paying attention to pulse count is like sharing best practices for getting great Botox treatment results in the forehead, without sharing the number of units used. One needs to know the number of units used to get the same great result. Similarly BBL HERO. If you know how many pulses a practitioner uses to achieve great results, you can duplicate the procedure and can expect the same great results.
- 6. Pulse count is the ideal endpoint for people who have nice skin and want to keep it that way.** Many of my BBL HERO patients are the daughters of patients that I have long treated with BBL for skin aging. But these younger patients have nice skin. They do not have many age spots, wrinkles or sun damage. Rather, they want to keep their skin looking young and healthy. The ideal endpoint for these patients with already nice skin is pulse count. After all, it is not so much the setting that you use or if you use two or three passes. But if you use the right number of pulses, you know you are going to give them a great and safe treatment.

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	Traditional BBL Pulse Counts		BBL HERO Pulse Counts	
	Corrective	Maintenance	Corrective	Maintenance
Face	250-350	250	1,000-1,250	600-800
Neck	150-200	150	600-700	400
Décolleté	150	200	600-700	400
Hand	100	80	200-250	200
Arm (full)	600-800	600	800-1,200	800
Leg	1,000-1,200	800-1,000	1,200-2,000	1,200-1,500



BBL HERO | Post 3tx | 650 Pulses to Cheek | Courtesy of Patrick Bitter, Jr., MD, FAAD



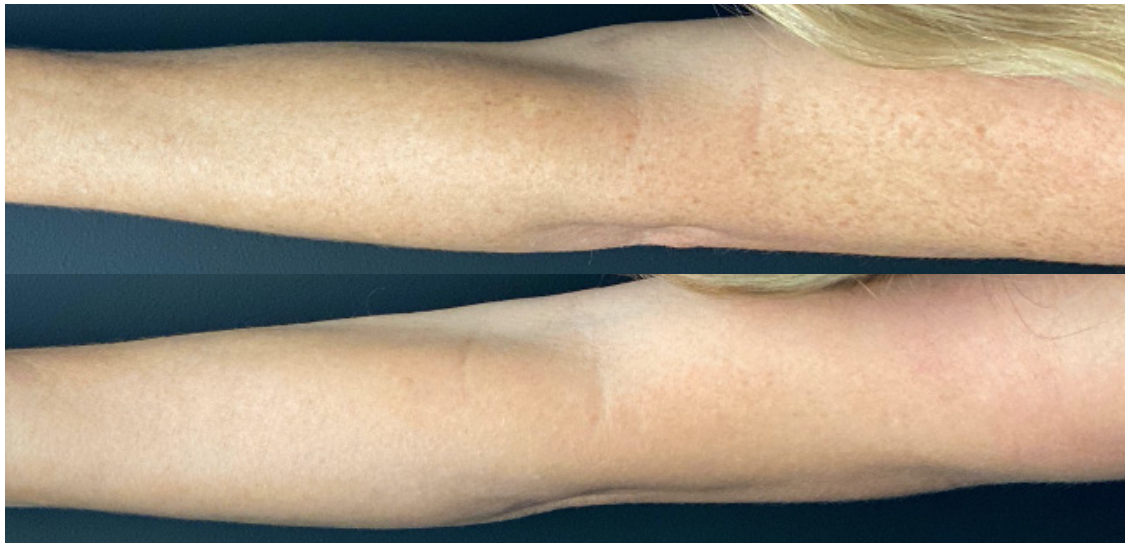
BBL HERO | Post 3 tx | 1250 Pulses to Face | Courtesy of Patrick Bitter, Jr., MD, FAAD

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BBL HERO | Post 1 tx | 250 Pulses to Forehead | Courtesy of Patrick Bitter, Jr., MD, FAAD



BBL HERO | Post 1 tx | 850 Pulses for Full Arm | Courtesy of Patrick Bitter, Jr., MD, FAAD

CONCLUSION

BBL HERO with High Energy Rapid Output is the most advanced IPL energy-based technology in twenty years. With four times faster speed, three times greater peak power and double the cooling ability, BBL HERO makes skin revitalization on the face and anywhere on the body a better, faster, safer, more comfortable and easier treatment than was ever possible before with IPL. BBL HERO makes possible new techniques and protocols that produce better clinical results that are more consistent and predictable, eliminating one of the major dilemmas and challenges with IPL treatments of the past. BBL HERO treatments are now easier to learn and easier to master than IPL and traditional BBL treatments. The new BBL HERO treatments and protocols utilize the Pulse Count as the

key endpoint of treatments, thus eliminating the subjective assessments of erythema and darkening of pigmented spots practitioners have relied on with traditional IPL treatments. Learning the optimal pulse counts for best results with BBL and BBL HERO is provided to all practitioners when they purchase their Sciton system and is available through my comprehensive on-line training course.

With BBL HERO, Sciton has introduced a new era in non-invasive, light-based skin revitalization and safe treatments for the face and body. The future is very bright for all of us who dream of clear, smooth skin and want to keep our skin youthful and healthy as we age. Sciton's BBL HERO now makes this dream a reality for all of us.



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