

# CLINICAL roundtable

## GentleMax Combines 755 nm and 1064 nm Lasers Into Versatile, Expandable Platform

By Fred Wilson, Contributing Editor

Candela Corporation (Wayland, Mass.) has combined two of their most popular lasers, GentleLase and GentleYAG, into the new versatile GentleMax platform. With all the advantages of each laser and a few of its own, this dual wavelength device could be just what the doctor ordered.

Candela's chief technical officer, James Hsia, Ph.D. explains, "GentleMax will do everything the lasers can do separately and then more, and you don't have to make any compromises." A common complaint with combination devices, according to Dr. Hsia, is that sacrifices are often made to the devices for the sake of a dual platform. "GentleMax is actually more useful, not less. For example, GentleLase only has one pulse duration: 3 ms, which is optimal for hair removal. As a part of the GentleMax it has the same variable pulse duration options of GentleYAG as well, giving users a more capable GentleLase," he said. The GentleMax workstation also features the spot sizes from each laser component. With both wavelengths available, the user can remove hair, reduce wrinkles, treat leg veins and pigmented lesions, tighten skin and more.

GentleMax is indicated for all skin types. "For the light patients, you can use GentleLase and with darker skin, you can use GentleYAG. The GentleMax also limits the penetration depth so you don't have to worry about causing too deep an injury," said Dr. Hsia.

According to Dr. Hsia, GentleMax is also an easier device to use. "We have added a larger, more sophisticated touch screen interface that can guide the user through the many procedures this device is capable of," he said. As new applications for each device are developed, upgrades will be available. "The ability to upgrade applications and treatment guidelines adds tremendous flexibility."



James Hsia, Ph.D.

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Additional convenience is found in the GentleMax design. "Physicians can buy one laser component and add the other later on. They can also add other technologies such as Er:YAG and fluorescent pulse light (FPL) devices to create an even more versatile integrated workstation. Just having the dual platform, however, saves space and allows for easy access from one room," Dr. Hsia commented. "Having two wavelengths available expands clinical possibilities, which are being explored." The indications already associated with each component are numerous. "Here is a device that brings two proven laser devices together with improved capabilities."

**Editor's Note:** Three dermatologists, one family physician and one plastic surgeon share their experiences with the GentleLase and GentleYAG lasers. These experts have not used the GentleMax, but were asked to speculate on a device in which the GentleLase and GentleYAG were combined.

## What is the role of GentleLase in your practice?



**Marguerite A. Germain, M.D.:** Of course for hair removal, GentleLase is the most efficient system. I also use it for deeper vascular lesions, even for thicker hemangiomas. The 755 nm wavelength is really good for those darker vascular lesions. I use it for blue veins around the eye, pigmented lesions, lentigines and wrinkles as well.



**Mark B. Taylor, M.D.:** We use GentleLase primarily for hair removal, pigmented lesions, and sometimes for congenital pigmented nevi and Becker's nevi.



**Stephen W. Eubanks, M.D.:** We use it more than anything for age spots and isolated pigmented lesions, but also for hair removal on dark haired patients with skin types I-IV. If someone has up to a dozen prominent brown spots, I think the laser is ideal. It still works fairly well for 1-1.5 mm purple veins. I've also used it for deeper, purple nodular port-wine stains and hemangiomas on occasion.



**Suzanne W. Yee, M.D.:** Probably 15% of the time I'll use it for solar lentigines and other things, but mostly for hair removal because it's a fast, effective and fairly safe laser. It also has dynamic cooling, which helps patients with the pain.



**Donald J. Brideau, D.O.:** It's one of the best lasers out there for hair removal, especially for light skin. We're also using it to treat brown spots, freckles and solar lentigines mostly on the face, chest and on the back of hands. GentleLase works well for photo-aging and photodamage.

*"GentleLase is quick, effective and not overly painful, all of which contribute to patient satisfaction."*

### Which anatomical areas do you treat with GentleLase?

**Dr. Brideau:** You really can treat any area. The most popular areas are women's legs, bikini area and under the arms. We've also done eyebrows, ears, unwanted facial hair (women), chest hair and back hair in men.

**Dr. Taylor:** I rarely treat the palms or soles, but I feel very comfortable using it anywhere else. We treat hair in any area.

### What are the advantages of GentleLase over other treatment modalities for the same conditions?

**Dr. Yee:** GentleLase is faster and more specific. We get quicker clearing of hair and it also takes fewer treatments than intense pulsed light (IPL). I feel it's safer than IPL also.

**Dr. Taylor:** GentleLase is very fast and IPL needs to recharge after each treatment. Also, the spot size is smaller so you can spot treat very efficiently. GentleLase saves me time and saves the patients money.

**Dr. Eubanks:** When I think of IPL, I think of treating larger areas. For individual areas GentleLase is more effective. Certainly for hair it's much more effective than IPL.

**Dr. Brideau:** An IPL device gives you a broad spectrum of light and therefore wavelengths that are not necessary. GentleLase gives you a wavelength that is designed for brown or black pigments in the hair and for pigmented lesions. IPL devices are designed with the light source in the handle, making it bulkier than a laser. I like the feel and quickness of GentleLase.

**Dr. Germain:** There are fewer side effects such as blistering or burning with GentleLase, and more accuracy. Of course, the Dynamic Cooling Device (DCD) also makes a huge difference. There's no messy gel and it's consistent and reliable. The 755 nm long pulse wavelength works better than something like the superficial IPL that might not reach the follicle.

### What about patient satisfaction with GentleLase?

**Dr. Eubanks:** GentleLase is quick, effective and not overly painful, all of which contribute to patient satisfaction. Patients are certainly happy with how it removes brown spots and it's probably the best hair removal device for dark haired, light skinned patients.

**Dr. Brideau:** Patients love hair removal whether it's simply cosmetic, for convenience such as removing leg or underarm hair, or to reduce ingrown hairs and the irritation associated with them.

**Dr. Yee:** Patients who have had both the IPL and GentleLase prefer GentleLase. It's really fast and the dynamic cooling reduces pain.

**Dr. Germain:** I've really not had unhappy patients with GentleLase. I guess I shouldn't say never, but that's been my experience. It is much less painful than a lot of other devices, it's effective and it's quick, which patients appreciate.



Before Tx



After Tx

Photos courtesy of  
Suzanne Yee, M.D.

*“Different lasers work at different layers of the skin, so combinations treat more layers of skin.”*

### Do you combine GentleLase with other procedures?

**Dr. Yee:** We can combine GentleLase with GentleYAG. We have both, and GentleLase is good for the brown spots. We use GentleYAG for skin tightening. Combining them creates an excellent synergistic effect for skin rejuvenation.

**Dr. Taylor:** If I’m doing a photofacial with IPL, and the patient wants to remove spots from the neck or back, we’ll spot treat with GentleLase after IPL.

**Dr. Brideau:** We’ve used GentleLase with other lasers in the past, especially with photorejuvenation. We also have the SmoothBeam (Candela), so when doing skin tightening and wrinkle reductions in a 40 to 50 year old patient, I may combine GentleYAG and the SmoothBeam. I’ve switched back and forth between lasers, not the same day, but there are times when we have flip flopped between GentleLase and GentleYAG for better results. Some hairs are more resistant than others.

**Dr. Germain:** I have a lot of lasers, and I do combine them. I actually use my GentleLase, GentleYAG and SmoothBeam all together. Different lasers work at different layers of the skin, so combinations treat more layers of skin, resulting in more dramatic rejuvenation than you could possibly do with one alone. I also combine GentleLase with fillers and Botox.

### What pre- or post treatment care is needed with GentleLase?

**Dr. Taylor:** Sometimes we’ll use a topical tetracaine/lidocaine mix, depending on the patient and the aggressiveness of the procedure. Cryogen works fairly well for spot treating a few spots. If we’re treating with 40 plus joules the patient may get scabbing and crusting, in which case we’ll tell the patient to use a gentle cleanser and then apply an antibiotic ointment for a few days as a precaution.

**Dr. Yee:** I don’t use anesthesia. Patients considering GentleLase treatment are not to tan or take medications that make them photosensitive, such as tetracycline and retinoids, five to seven days before treatment. We use cold Humatrix Gel (Care-Tech Laboratories, Inc., St. Louis, Mo.) to cool the site after treatment. Typically that’s all patients need. I’ve had no problems with blistering, but if they occurred I would suggest ointment. We’ll give patients an ice pack to carry home if necessary, but we do tell them to wear sunblock.

**Dr. Eubanks:** We hardly ever have to pretreat, even in skin types III and IV. I’ve had no problems with herpes so there is no need for antivirals. For patients with brown spots, I tell them to expect some peeling and I might suggest a soothing moisturizer such as Skinceuticals (Garland, Texas) products. It’s that simple.

**Dr. Germain:** Patients with tricky skin color or who have recently tanned may need hydroquinone to bleach the area. We shave the area, too, because we want the energy to go to the follicle and not just the hair. Similarly, we don’t leave lotions or makeup on the skin. If the patient is very sensitive to pain, you can use topical anesthetics beforehand. We’ll apply cream with a little bit of aloe and hydrocortisone, something called AloeCort, post treatment. We advise strict sun avoidance for the first 24 hours, then a high SPF sunblock afterward.

**Dr. Brideau:** It’s essential to be careful with darker skinned patients and to caution light skinned patients against sun exposure pre- and post treatment. Someone with a recent tan will be more sensitive to the laser wavelength. Other than that, you can come in, get treated and go home. That’s what my patients like.



Before Tx



After Tx

Photos courtesy of  
Suzanne Yee, M.D.

## Do you have any treatment advice for GentleLase?

**Dr. Brideau:** When physicians are first using the GentleLase, they should feel comfortable in treating one type of skin condition. Start with hair removal because it's easy. The settings have been well tested and if you do test dosing, you'll be able to treat skin types I-III the same day. For types IV through VI, I test at multiple settings. Patients return in a few weeks to see if their skin reacted, so we're less likely to run into problems.

**Dr. Taylor:** Be careful not to under treat pigmented lesions. Work to the point where you get a little bit of grain of the pigment in the lesion, or else the patient may be discouraged with the result. You also need to be able to recognize the difference between small, fairly flat severe keratoses and lentiginos. Severe keratoses don't respond unless vaporized with an erbium laser or over treated so they blister and peel off.

**Dr. Germain:** I use a thick, spongy material to cover the areas around the treatment site if a patient has a lentigo. After we treat a spot, we put pressure on it to trick the spinal cord into sensing less pain as we go along. Cold compresses during treatment help too, especially when treating large areas such as the back.

**Dr. Yee:** We shave the skin before treatment. There is no need to pre-cool because we use the DCD. We tell patients not to tan and not to take certain medications, and that's all.

*"The satisfaction rate is about twice what we saw with radiofrequency (RF)."*

## What is the role of GentleYAG in your practice?

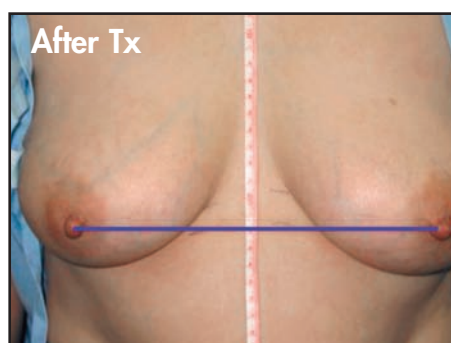
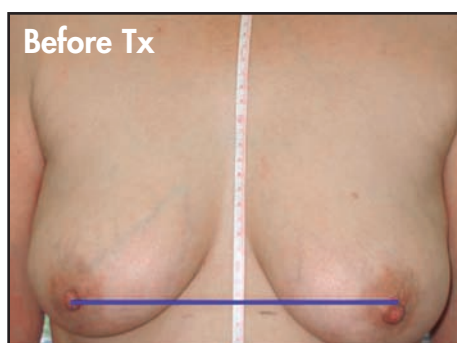
**Dr. Brideau:** GentleYAG is nice because even the darkest skin can show a great response without the downtime and worry of using special makeup. The 1064 nm wavelength is great for vascular lesions and astounding for skin tightening. We use it on facial blood vessels and leg blood vessels up to about 3 or 4 mm. You can actually see the vessel disappear before your eyes. We have also tested it for lifting breasts. We were able to achieve 2 cm of nipple lifting in two patients by tightening the skin above the breast toward the collar bone. We've used the GentleYAG on the abdomen, buttocks and upper thigh as well.

**Dr. Taylor:** We do a lot of skin tightening procedures with the GentleYAG because it's fast and efficient and patients love it. The satisfaction rate is about twice what we saw with radiofrequency (RF). We use it for deeper vascular lesions, hemangiomas and spider veins, especially around the eyes. Also, for hair removal for dark skinned patients. We've obtained nice results for stretch marks on the breasts and abdomen as well.

**Dr. Yee:** GentleYAG has proven to be a fast, effective and safe treatment option for patients wanting mild-to-moderate improvement in skin laxity. I also use it for leg veins and facial veins and to remove hair in skin types IV and V.

**Dr. Eubanks:** It's tremendous for removing hair in the darkest skin. We also use it for skin tightening and non-ablative resurfacing. I think it's the treatment of choice for larger facial veins, especially around the nose because the veins disappear right away and patients love that.

**Dr. Germain:** I acquired it for hair removal on darker skin. I've used it for pseudofolliculitis barbae (PFB) and it's great for that. I do leg veins, facial veins, acne and acne scars. We also use the GentleYAG for skin tightening, which usually requires five treatments about a month apart.



Photos courtesy of Donald Brideau, D.O.

*"GentleYAG is a very versatile laser, fast and easy to use. We drive it hard every day and it's very reliable."*

### What are the advantages of GentleYAG over other treatment modalities for the same conditions?

**Dr. Germain:** GentleYAG bypasses the epidermal melanin to get down to the hair follicle. It's effective for the leg and facial veins that other lasers and IPL can't reach. Patients who've had Thermage (Hayward, Calif.) are much happier with GentleYAG because it's less painful, less expensive and results appear better. The downtime is minimal, too. One main advantage is the smaller spot size. It doesn't leave a divot in the patient's face as the 3 mm size can, so my technician can treat some of those veins.

**Dr. Taylor:** GentleYAG is a very versatile laser, fast and easy to use. We drive it hard every day and it's very reliable. I have other long pulse YAG lasers, but GentleYAG is our workhorse.

**Dr. Eubanks:** Compared to my other non-ablative resurfacing lasers, GentleYAG probably gets the deepest creases. You probably don't get the immediate tightening you see with Thermage, but it works at least as well in the long-term and without downtime. GentleYAG is far better than pulsed dye laser (PDL) for most vessels. Nothing else works for the purple vessels around the nose.

**Dr. Brideau:** Compared with IPL, GentleYAG is great for treating dark skinned individuals. If you treat a broad range of skin types, this laser can be used for hair removal, varicose vein removal and skin tightening. It's so quick and versatile that if I could buy just one laser, it would be GentleYAG.

**Dr. Yee:** Unlike RF skin tightening, 1064 nm energy appears to exhibit equivalent if not superior tissue tightening without the risk of fat atrophy associated with electrical resistance heating. GentleYAG is definitely much faster too.

### Are patients satisfied with GentleYAG treatment?

**Dr. Taylor:** In a side-by-side comparison, single treatment GentleYAG vs. single treatment RF, we saw better tightening with GentleYAG at six months. So it's a no brainer for us and the patient.

**Dr. Eubanks:** For vascular lesions, results are dramatic and patients love it.

**Dr. Yee:** My patients and I prefer the GentleYAG. Patients can see results and respond well. Also, each GentleYAG treatment takes less than 20 minutes, so it's quicker than Thermage.

**Dr. Germain:** Patients love to see results two to four weeks after their first treatment. You have to set realistic expectations. I try to under promise and therefore over deliver, which GentleYAG does every time.

**Dr. Brideau:** I have been tightening skin with GentleYAG for about a year and a half now, and I have not yet had a dissatisfied patient. Word-of-mouth keeps us from having to do any outside advertising, which keeps prices down. That always makes patients happy.

### Do you combine the GentleYAG with any other procedures?

**Dr. Brideau:** It depends on what you're doing. We do see an improvement based on how the different wavelengths rebuild collagen in the different layers. For example, the shorter wavelength of GentleLase builds more superficial collagen. You get added benefits when you use GentleYAG at the same time. And actually, many of my patients who use Botox and GentleYAG aren't getting Botox anymore. Botox and fillers give a great immediate response

but in the long-term, with GentleYAG skin tightening, and especially when combined with the SmoothBeam, patients don't see a great need for fillers.

**Dr. Taylor:** We'll often combine GentleYAG with a photofacial. We'll sometimes do IPL followed by GentleYAG to treat red and brown lesions on the face. We'll combine it with fillers, Botox and various cosmetic treatments.

**Dr. Eubanks:** I combine GentleYAG with Vbeam (Candela) in the pigment lesion mode, GentleLase, or IPL. I'll alternate IPL and GentleYAG, for instance, with two weeks between each session. Sometimes with GentleYAG, microdermabrasion freshens up the surface.

**Dr. Germain:** I combine GentleYAG with other lasers and fillers. I think the result is better if you combine them. Patients don't often separate the different modalities. If you give someone Botox, they'll be happy. But if you give them Botox and a laser procedure, they'll be happier with the Botox and happier with the laser.

**Dr. Yee:** We combine GentleYAG with GentleLase, or sometimes with IPL for erythema.

### Is there any pre- or post treatment care?

**Dr. Taylor:** We've used analgesia for facial tightening in the past, but now we try to push the tightening to the point patients can tolerate without being drugged. There isn't really any post treatment because there is no wound care. After laser tightening, the patient just looks flushed for a few hours. Next-day swelling is never enough to keep patients home from work or cause major problems.

**Dr. Eubanks:** I haven't had to pretreat. If a patient has a history of herpes around the mouth, I'll treat that, but I've never seen an outbreak. I don't post treat, either.

**Dr. Yee:** With the YAG, we tell patients not to tan. We typically don't want them to take any medications that would promote photosensitivity. After treatment, especially if we're tightening skin, I don't cool the skin. I want that heat.

**Dr. Germain:** I'd say the same for GentleYAG as for GentleLase. Maybe there's more edema with the GentleYAG, but if we're treating lentigines on the face and chest, patients do have some downtime. The epidermis sloughs off a bit where the pigment was, so in that case, I'd suggest cream and ice.

**Dr. Brideau:** Daily sunscreen use is the best way for patients to preserve their investment in laser cosmetic treatment, even during the winter. We actually offer a line of physician quality skincare products for less than what department stores charge.

### Do you have any treatment advice for GentleYAG?

**Dr. Taylor:** The skin of people with fat, round cheeks or really thin faces does not tighten very well. People with moderate heaviness of the face do best.

**Dr. Eubanks:** The big controversy is which spot size to use for vessels. I initially used the 3 mm size for vessels, but that can be too intense. Occasionally on the nose you'll get small scabs that potentially lead to tiny scars. Now I use 1.5 mm spots to make the treatment safer.

**Dr. Brideau:** For skin tightening, try to get the skin as warm as possible. We're experimenting with treatment settings different from the standards. Currently Candela recommends the 10 mm head at 50 J/cm<sup>2</sup> and 50 ms. We're looking at the 18 mm head at 30 J/cm<sup>2</sup> and 3 ms. So far the 18 mm head seems to get the skin much warmer, even at the lower energy.

*"There isn't really any post treatment because there is no wound care. After laser tightening, the patient just looks flushed for a few hours."*

**Dr. Germain:** When treating acne and acne scars, I like a painting technique. I use an 8 mm spot size, 0.25 ms, 11 J/cm<sup>2</sup>, no DCD and 5 to 10 Hz repetition rate. I paint over the face for 8 to 12 pulses as the last pass. I think it's important to set realistic expectations and to take before and after photos.

Suppose you had a workstation with both GentleLase and GentleYAG. What would be the advantages of such an arrangement?

**Dr. Eubanks:** If such a system were as dependable as each separate device, this would be an indispensable device. You could treat every skin type. If you're trying to do get rid of wrinkles with GentleYAG, you could also get rid of brown spots with GentleLase. That would be very convenient.

**Dr. Brideau:** You'd probably spend less for a combo unit. The disadvantage to that is that if one goes down, the whole device might go down, although we've had great reliability with Candela products.

**Dr. Yee:** Well, I think it would be good for a small practice. That way the physician could use one platform without paying for two lasers. I often have a patient in one room with the GentleYAG and a patient in another room with GentleLase. With a combination platform you could treat only one patient at a time.

**Dr. Germain:** For physicians new to lasers, the combination platform would be the best thing they could use, GentleLase and GentleYAG in one box. It could save money, too. I have a fairly busy practice, so if I only had the one unit with the two lasers, I could only see one patient at a time. My office has several rooms, each with a laser and that works well for me.

Would it be easy or hard to integrate a dual wavelength into your practice?

**Dr. Germain:** The integration of a dual wavelength platform would have limited utility in my practice, but would be invaluable to someone with a smaller practice.

**Dr. Eubanks:** It wouldn't be difficult at all. I would probably not buy one because I have them both, but for someone starting out, it would be extremely easy to integrate. The combination makes sense.

**Dr. Taylor:** From my experience, mixing and matching two different wavelengths and managing the interaction is not for the beginner. It's hard to generate that much power in a true laser with say, a 10 or 15 mm spot size. Most of the PDLs can't generate enough energy to drive a large spot size like that faster, but if we could, I would be thrilled. If I could have a system with a 10 mm spot size that I could drive an effective fluence at 2 Hz, that would be a dynamite piece of equipment.

**Dr. Yee:** I think it's not a bad idea for someone just starting. I wouldn't choose it because I have a fairly busy practice with multiple rooms. A beginner may not have several rooms to house lasers.

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