

## SAMPLE

# A “Shining” Star

## *A laser technician sheds some light on her role in a plastic surgery practice*

by Amy Kellogg

**T**he role of a laser technician in a plastic surgery practice is a multifaceted one. When medical lasers were first commercialized, the technology was embraced and operated solely by physicians. However, a surgeon’s time is far too valuable to be spent operating a laser rather than performing surgery.

Therefore, in light of the growing popularity of laser therapy, as well as the evolving laser technologies, many plastic surgery practices are employing laser technicians to stay current and cost-conscious in this consumer-driven market.

### A Patient Resource

Most modern plastic surgery practices employ a team of medical professionals to integrate the disciplines of aesthetic surgery with other aesthetic procedures, such as laser therapy and skin care. This combination allows them to offer customized skin health and aesthetic treatments to their patients.

A laser technician is an integral component of the aesthetic treatment team, and is often given latitude to decide the best course of action for patients presenting with a variety of conditions, including rosacea, photoaging, acne and acne scarring, vascular lesions, poikiloderma, and actinic and seborrheic keratosis. Evaluation of any medical conditions or unusual lesions by the overseeing physician ensures that two health professionals are caring for patients during their laser procedures.

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The laser technician helps his or her patients understand the purposes and limitations of all the available laser treatments and helps them make the best choice. A skilled technician can also answer questions from patients, saving the physician valuable time.

Often, prospective patients are misinformed by the media as to how well certain procedures meet their desires. Dispelling myths is part of every aesthetic surgery practice. Setting realistic, achievable goals ensures happy patients and a great referral base.

In addition to answering patient questions, a laser technician should ask the patient the following questions during the initial consultation and before beginning laser treatments:



- What are the patient’s expectations? (The technician must determine whether they are realistic.)
- Has the patient received previous aesthetic or surgical procedures? If so, how satisfied was the patient with the outcome of the treatment?
- Is the patient’s skin type amenable to the types of laser treatments offered in the office?
- Does the patient have a history of poor outcomes—for example, keloid scarring?
- Has the patient taken photosensitizing medications?
- How much recovery time is acceptable to the patient?

A laser technician also works closely with the aesthetic staff when layering aesthetic treatments. Layering means that different aesthetic and laser procedures are combined during the same treatment session.

For example, a medical microdermabrasion procedure to remove the overlying stratum corneum can be performed prior to a skin-thickening laser-rejuvenation procedure, and then can be immediately followed by a shorter-wavelength laser treatment for dyspigmentation. In this way, the aesthetic team works together to amplify the effectiveness of each treatment.

### Education and Certification

The “strip mall” laser centers have denigrated the market by often providing substandard and sometimes dangerous treatments. Therefore, many physicians and technicians would welcome more stringent guidelines regarding the appropriate use of lasers.

Although there are no national standards for laser education and certification, the level of knowledge and experience necessary

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for a laser technician to function in this fast-paced field is significant. A broad spectrum of expertise, ranging from laser physics, skin and hair biology, and good patient skills, are elements that yield an excellent laser technician.

The credentialing of laser practitioners is governed by each state's medical board. Nonmedical practitioners who operate laser devices must take state-approved training courses and gain certification to practice under the supervision of a qualified physician.

The degree of physician supervision required to operate lasers varies from state to state. Some states require a medical director to personally oversee all patients receiving laser treatments, whereas others require only that a medical director be available.

Regardless of the laser technician's background—medical, aesthetic, or even nonmedical—conscientiousness, experience, and good training are the best credentials in every state. Anyone who operates a laser should have a comprehensive understanding of laser physics and safety, indications and contraindications for laser procedures, and hands-on experience.

The technician should also understand the inherent risks associated with lasers and be aware of the proper procedures and documentation required when the unexpected happens. Providing safe laser treatments is extremely important—as is the supervising physician's malpractice insurance, which covers any adverse events.

Strong operational skills are vital to the success of a laser technician, but a knowledge of marketing is also crucial for building and retaining a patient base. Marketing budgets and strategies need to be established to advertise laser services. Comprehensive marketing campaigns may involve print, mail, radio, Internet, and even television. However, the most effective source of new business is generally via personal referrals from clients and other practices.

### Laser Knowledge Is Key

The challenge of meeting the patient's expectations is sometimes limited to the availability of multiple laser modalities. No single laser can address everything that crosses a plastic surgeon's threshold, so each laser machine has many parameters (including laser wavelength, fluence, pulse duration, spot size, and skin cooling) that can be adjusted to treat the patient's specific conditions.

The significance of achieving safe and effective therapy in today's litigious society must not be underestimated. To safely

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address a variety of patient needs, a laser technician should have experience with the following types of lasers:

- **Nd:YAG lasers** are used for nonablative skin resurfacing, vascular lesions, and hair removal in darker-skinned patients. The laser generates heat to induce collagen modification, which softens fine lines, decreases overactive sebaceous glands, and minimizes the appearance of enlarged pores.

Several Nd:YAG lasers offer various pulse-duration settings for treating vascular lesions, in particular facial and leg telangiectasias. The Nd:YAG laser is safe for hair removal in skin types IV–VI and is effective for treating patients suffering from pseudofolliculitis barbae.

- **Intense pulsed-light therapy** is used to treat photo-aging (brown and red dyspigmentation). Patients who have multiple signs of photo-aging, such as solar lentigenes, facial telangiectasias, red flushing, fine lines, and poor skin texture, benefit greatly from treatment with a broad spectrum of light. If needed, a secondary

## Photodynamic Therapy

The advent of photodynamic therapy (PDT) has given laser technicians the opportunity to treat many conditions more aggressively with only moderate recovery time. The photosensitizing agent is applied for 1 hour prior to activation with an IPL and or pulsed-dye laser.

IPL activation, especially in severely photo-damaged skin, most certainly requires 3–4 days' recovery time. On the other hand, activating the solution with an infrared light source to treat acne rarely necessitates time away from normal activities.

One caveat with PDT is the necessity of complete sun avoidance for 24 hours following the treatment. Patients who are unable to comply with this restriction should be offered alternative treatments.

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modality can be used to address resistant dyschromias.

- **Pulsed-dye lasers** are effective for treating vascular lesions and red scars. Their shallow penetration and short wavelength target the vascular supply in new scars, particularly after Mohs micrographic surgery. Rosacea and poikiloderma are also very responsive to this wavelength.
- **The alexandrite laser** is used to treat brown pigmentation and hair removal in Fitzpatrick skin types I–III. This laser also removes resistant lesions, such as seborrheic keratoses.

### Trends and Technologies

Laser therapies function in the continuum of aesthetic treatments offered to plastic surgery patients of all ages. Although younger patients are not candidates for surgical procedures, they can enjoy the benefits of laser skin rejuvenation and laser hair removal.

In most cases, patients who are ready for surgery can also benefit from some type of laser rejuvenation to ensure an optimal surgical outcome. Without addressing the issues of aging that affect the skin, surgically rearranging poor-quality, photodamaged skin often provides a less-than-desirable result.

Therefore, current trends in the laser arena offer patients excellent results with moderate to minimal recovery times. Many patients are willing to undergo a slightly longer recuperation time if the results of the treatment are satisfactory.

New technologies are also constantly emerging in the ever-changing aesthetic laser field (see the sidebar on this page), but claims made by laser companies promising true skin tightening and the removal of depigmented hair often result in unrealistic expectations and disappointed patients. It is a constant challenge to wade through the rhetoric and false promises of the latest trends. A prudent practice for any laser technician is to be conservative in the treatments offered by providing only proven modalities.

The multifaceted role of a laser technician offers many rewards and challenges. After appropriate training, the technician should be able to operate independently, yet also be a vital part of the aesthetic team. Cosmetic enhancement is only a wavelength away! **PSP**

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