

**Featured on the [Washington Post website](#), 05.06.2002 **Cosmetic Lasers: Facing Up to the Risk****

By Sandra G. Boodman

Swathed in a thick, white terry cloth robe, her eyes shielded by rose-colored goggles, a 41-year-old financial consultant chatted amiably as Washington gynecologist Bruce L. Ames systematically pressed the chilled tip of a laser against her outstretched leg. The hair-dryer-shaped handpiece unleashed a series of staccato pops, raising small square red welts that quickly faded.

"It feels like a rubber band snapping against my skin," said the woman, who had paid \$8,000 for five laser treatments -- this was her second -- to remove unwanted hair on her legs, underarms, forearms, bikini line and upper lip.

The woman, who asked not to be identified, is no stranger to cosmetic medicine. For the past few years she has gone to an ophthalmologist for regular injections of Botox, the anti-wrinkle treatment derived from a paralytic poison. Several years ago she had laser eye surgery to eliminate her need for glasses.

"I get hired to do a lot of corporate finance and public speaking, and it really helps if you look good," said the woman, who regularly works out with a personal trainer near her Georgetown home.

Looking good increasingly means undergoing treatment with a laser designed to remove hair, wrinkles, acne scars, brown spots caused by sun damage, broken blood vessels, stretch marks and other skin imperfections. One of the fastest growing and most lucrative areas of medicine, cosmetic laser procedures are barely regulated, and in many states are offered in both doctors' offices and the cucumber-scented confines of posh day spas. A burgeoning number of physicians trained in specialties other than dermatology, many eager for fees unfettered by the discounts and dictates of managed care, are buying lasers. So are spas, whose owners sometimes hire technicians or aestheticians with little training to use medical devices capable of causing permanent, disfiguring injury. (See "[In the Wrong Hands, Hair Removal Can Cause Burns, Scars, Pigment Changes.](#)")

Initially wielded only by specialized dermatologists with expertise in using lasers, hair removal machines can now be found in the offices of family practitioners, ear, nose and throat specialists, obstetricians, ophthalmologists and even dentists. An industry analyst projects that the laser hair removal business alone, which didn't exist seven years ago, will generate \$2 billion in treatment fees this year.

Although many people appear to be happy with laser procedures, a growing number of patients and physicians say that results can be disappointing -- or disastrous. One Washington dermatologist said he is consulting as an expert with plaintiffs in 100 lawsuits around the country involving botched hair removal treatments that resulted in burns, scarring or pigment changes. Dermatologic specialists in Washington and other cities say they routinely see patients with

unfixable injuries, some inflicted by technicians who were wielding laser equipment that was out-of-date, set improperly or not appropriate for a patient's skin type.

### **"Aesthetic Medicine"**

Ames treated the financial consultant in the downtown office of his gynecology practice, which doubles as one of the six locations of Alase, a two-year-old chain of hair removal clinics of which he is an owner and medical director.

"This is aesthetic medicine," said Ames, who also chairs the gynecology department at Washington's Columbia Hospital for Women. "Nobody needs to have hair removed, but they want to." Ames said his clients have ranged in age from a 9-year-old girl who was being teased about her hairy forearms and legs to an 89-year-old man who wanted the tufts zapped from his ears.

Seventy percent of Alase's clients are women, who pay an average of about \$1,000 for a package of treatments, usually to remove hair from their faces. Men typically want hair removed from their backs and shoulders, and sometimes their chests, which tends to be more expensive.

Many laser hair removal clients seem satisfied with treatments that reduce or eliminate the need to shave, pluck or wax unwanted hair. But not everybody is happy with the results.

"I think people make better decisions about who's going to fix their cars than who's going to fix their faces," said Washington dermatologist Tina S. Alster, one of the pioneers of laser dermatologic procedures. A few years ago patients rarely consulted her to treat complications of laser surgery. Now, Alster said, she sees at least one a week, "some of whom have the most horrendous burn scars -- they look like they've been in a kitchen fire."

Washington dermatologist Eliot F. Battle Jr., an expert in using lasers on dark and tanned skin, agreed. "In the right hands with the right machine, lasers are wonderful," said Battle, who teaches at Harvard and Howard medical schools. "But in the wrong hands, lasers can do a lot of damage."

Industry officials estimate that 95 percent of laser hair removal treatments are being performed by non-physicians, although it is not known how many of them are nurses working under the supervision of dermatologists or plastic surgeons. Increasingly, cosmetologists and other spa employees who may have limited education and experience are performing laser treatments after a brief training course.

Only five states -- New Hampshire, Nebraska, Hawaii, South Dakota and New Jersey -- restrict the use of these lasers to physicians, according to Alan G. Voss, a California consultant who tracks state law for laser manufacturers. (In the District, Virginia and Maryland, non-physicians are permitted to use cosmetic lasers with certain restrictions.)

### **Removing Hair**

Dermatologic lasers emit intense beams of light that penetrate several layers of skin and selectively vaporize specific targets -- such as the pigment in dark hair or red blood vessels or brown age spots. Laser hair removal is best suited to treat dark-colored hairs on light-colored skin. Uncertainties are inherent in the process: All lasers wound the visible top layer of skin, sometimes causing redness or crusting or swelling, depending on the procedure.

When it comes to removing hair, lasers can be much more efficient than electrolysis, in which tiny needles are inserted into a single hair follicle and electrical current is applied to destroy it. Lasers, which are supposed to demolish the root of hair follicles, treat a much larger area with many more hairs, permanently reducing re-growth but not preventing it entirely.

Because hair is often enormously resilient and grows in cycles that are governed by a largely mysterious combination of heredity and hormones, multiple laser treatments about a month apart are required. Each of those sessions, which can range from a 10-minute upper lip job that costs as little as \$50 to \$3,000 for a man's back, can be lucrative and are devoid of the strictures and oversight of managed care.

"There is a huge amount of money to be made, especially if you hire a technician to do it at \$15 an hour," said Ken Callison, president of the Allied Health Association, a Colorado-based group that represents what he calls "the high-tech aesthetic industry," which includes spas and beauty salons. "It isn't unusual to have a \$1,000 lease for a laser bring in \$15,000 to \$18,000 per month in profit. Now you know why doctors are trying to protect it," said Callison, whose group offers a "rent a medical director" program that furnishes off-site physicians in states that require a doctor to supervise laser use.

"This is a huge market," said Steven Blumenfeld, a vice president of MIDI, LLC, the company that owns Alase, which has centers in the District, Maryland and Virginia as well as a chain of magnetic resonance imaging (MRI) centers outside the Washington area. "I don't know a woman who doesn't have unwanted hair somewhere, which can be incredibly troubling and embarrassing."

But some dermatologists warn that medical procedures have no place in spas, or in the offices of physicians trained in other specialties who regard laser procedures as an easy way to supplement their incomes. Laser treatments, they note, can cause burns, scars, pigment changes and blindness if the eyes are not protected during treatment. And skin specialists say that serious and even fatal conditions such as melanoma can easily be missed, or mistaken for a benign freckle.

"People are using lasers that can disguise precancerous and cancerous lesions by lightening them," said Battle, who noted that he has diagnosed melanoma in several patients on whom he was performing laser hair removal. "A hair removal laser can lighten a dark melanoma which could continue growing, going deeper and metastasizing."

"Lasers are not point-and-shoot cameras," said New York dermatologist Roy Geronemus, president of the 2,400-member American Society for Dermatologic Surgery, who helped test many of the laser devices that have won approval from the Food and Drug Administration (FDA). "These devices have improved greatly in the last three to five years, and in well-trained

hands the incidence of side effects is very low. But because of the success and ease of treatment, the entrepreneurial types have underestimated the difficulty of performing these procedures successfully."

## **Permanent Removal?**

The misuse of lasers is not the only issue: misleading advertisements that promise results technology can't deliver are another concern. Ads for hair removal often include such eye-catching phrases as "Say goodbye to your razor," "Permanent hair removal" or "Never shave or wax again."

According to the FDA, these promises are all misleading and perpetuate one of the myths about laser hair removal. The agency says manufacturers of hair removal lasers and those who use them are allowed only to claim "permanent reduction" of hair, not "permanent removal." "This means that although laser treatments will permanently reduce the total number of body hairs, they will not result in a permanent removal of all hair," the agency says on its Web site.

Tom Liolios, a spokesman for Lumenis, the world's largest manufacturer of cosmetic lasers, said that the FDA defines permanent reduction as eradication of 60 to 80 percent of hair treated over several sessions -- a period that can take a year. Liolios added that for reason that remain unclear, laser hair removal ultimately does not work for about 10 percent of patients who undergo multiple treatments.

Alase, the local hair removal chain, has sparred with the FDA over an advertising claim since its inception two years ago. It continues to use the phrase "permanent hair removal" in patient information materials. In advertisements, Alase uses the phrases "safe, effective and permanent," "never shave or wax again" and "in only a few sessions your skin can be smooth and hairless. Forever."

On May 10, 2001, an FDA official wrote to Alase vice president Blumenfeld, warning him against the use of a statement on the Alase Web site that the technology used was "safe, effective and permanent."

"It is inappropriate and a violation of law for Alase to continue this . . . promotion," Steven E. Budabin, a consumer safety officer at the FDA warned Blumenfeld about the permanence claim.

Blumenfeld said that statement was dropped and Alase has complied with the law. "We don't promise 100 percent of hair removal 100 percent of the time," he said.

That's not the point, according to FDA spokesman Sharon Snider. "We're not aware that they're still doing that, but if Alase is still claiming permanent hair removal in their literature, then they are not in compliance," she said.

## **Economic Interests**

Physicians trained in other specialties argue that they can perform many laser procedures just as well as dermatologists, who spend three years studying the skin and sometimes an additional year of advanced laser training in a fellowship. The idea, they say, that only dermatologists and plastic surgeons can use lasers properly is nothing more than economic protectionism.

"I'm a surgeon, and I can use a laser machine for endometrial ablation," an alternative to hysterectomy that removes the lining of the uterus, said obstetrician-gynecologist Reffat K. Abo-Freka, who performs hair removal treatments in his Annandale office. "If I can use it for that, well, a laser machine on hair is just pffft, nothing," he said.

Abo-Freka, who is licensed in Virginia, was disciplined by the medical board in that state and three others after he left his practice in South Carolina in 1990 without advance notice to his patients or the hospital where he was practicing.

Abo-Freka said that his disciplinary history "has nothing to do with the practice of medicine" and that his problems were caused by his ex-wife, "who reported me to the medical board after I closed my office abruptly. The laser treatment in Virginia has nothing to do with the medical board in South Carolina."

Abo-Freka, who owns a hair removal laser he bought 2 1/2 years ago, said he also does treatments to remove broken blood vessels using a different type of laser. Cosmetic laser procedures, he said, comprise 50 percent of his practice and are his way of recouping losses from lower reimbursement by health plans.

Abo-Freka scoffs at the notion that cosmetic lasers should be the exclusive province of dermatologists. "Let me not put dermatologists down, but any doctor can do this," he said.

To Robert M. Adrian, one of Washington's busiest laser surgeons, this argument is disingenuous. "Does this mean I should be doing Pap smears on my patients because I'm allowed to?" said Adrian, who is board-certified in internal medicine and dermatology. "It's the doctors who can't make ends meet or who feel that they need to make more money" who are picking up cosmetic lasers, he said.

But protests by Adrian and his peers are undercut by actual practice in many laser dermatologists' offices. Many specialists delegate hair removal cases, which they find boring and time-consuming, to a nurse whom they supervise.

Alster, who has written a textbook on dermatologic laser procedures, has strict requirements about laser use in her practice. She performs all hair removal procedures on the face, underarms and bikini line and she or another dermatologist perform the first 15 minutes of very large jobs, such as men's backs or women's legs, determining the proper setting before handing the laser to a nurse.

Dermatologist Eliot Battle recently bought the lan day spa in Chevy Chase and, with a plastic surgeon, is turning it into a medical practice that will also offer spa services. Battle said he will perform all laser hair removal procedures himself. "That's my job," he said.

Bruce Ames said that while most of the 25 laser operators at Alase's six centers are not dermatologists, all must undergo at least 40 hours of training. They are subject to unannounced visits by Ames or assistant medical director Shannon Roy Ginnan, a recent medical school graduate who completed a one-year internship in family practice, but not a residency, before joining Alase, which is not affiliated with Alase Technologies, a Massachusetts firm that makes laser equipment.

"Do I know as much about skin as a dermatologist? No," Ames said. "I really had to educate myself about what a laser does to skin." Ames said that to his knowledge, none of the approximately 10,000 treatments Alase operators have performed has resulted in a serious complication, such as a scar.

Alase hires only physicians, nurse practitioners or physician's assistants to perform laser treatments, Ames said, although a physician is not always on site when patients are being treated.

"We're trying to provide a spa-like atmosphere, but we recognize that this is a medical procedure," he said. If complications arise, Ames said, laser operators in Springfield or Tysons Corner or other centers that are not usually staffed by a physician can call him or Ginnan, who works in Alase's Rockville center. "If necessary," he said, "Shannon can get in his car and go."