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## Laser hair removal a risky business in need of regulation, experts say

Dermatologist Dr. Vince Bertucci has seen patients with permanent disfigurement, skin discolouration and burns as a result of complications from laser hair removal — a procedure largely unregulated in Canada.

“I just saw a young girl — it was a very sad case — who developed a very prominent scar on her right upper lip from laser hair removal. She’s under 20 years old,” says Bertucci, a consultant dermatologist at Women’s College Hospital and former codirector of undergraduate dermatology at the University of Toronto. “It’s heart-wrenching to deal with these cases because ... they’re going in to look better, and come out looking worse.”

There is always a risk of complications, even when a medical doctor performs the procedure, adds Bertucci, who is also past president of the Canadian Society for Dermatologic Surgery and medical director of Bertucci MedSpa in Woodbridge, Ontario.

But the risk is magnified when laser hair removal is performed by people with no medical training and no physician is on site in case things go wrong, he says.

Health Canada says it regulates laser devices to ensure that systems sold in Canada are “safe and effective when used for their licenced medical purposes by trained professionals according to the manufacturers’ directions” ([www.hc-sc.gc.ca/hl-vs/iyh-vsv/med/laser-eng.php](http://www.hc-sc.gc.ca/hl-vs/iyh-vsv/med/laser-eng.php)).

However, there is no stipulation as to who can actually use these devices for cosmetic laser hair removal nor are there federal or provincial training requirements.

In the United States, more than half of state governments now stipulate that electrologists, cosmetologists, estheticians and other nonmedical personnel may not perform laser hair removal without onsite medical supervision, according to the American Society for Dermatologic Surgery, which takes the position that such procedures should only be done under the supervision of a medical doctor with extensive training in laser surgery techniques.

The United Kingdom permits nonmedical personnel, such as beauticians, to perform laser hair removal, but they are legally required to register with the Department of Health’s Care Quality Commission to ensure that minimum training and safety standards are met. The commission has even prosecuted a health spa owner for operating hair removal lasers without registration.

By contrast, Health Canada, merely states in a consumer advisory about cosmetic laser treatments that “experts in cosmetics with proper training in laser techniques should be able to perform hair reduction treatments with minimal risks to the Canadian public. For any other type of laser treatment, Health Canada advises you to seek the services of a licenced health care professional with specialized training in laser procedures.”

Canadian regulation is “lagging,” Bertucci says. “I think it’s a matter of time. As more people avail themselves of these procedures, there is going to be . . . a demand for regulation to make sure that when you are having something done, you are going to be safe.”

Although the *National Law Journal* says that in the US, complications involving laser hair removal and other procedures at medical spas are becoming a “litigation hot spot,” ([www.law.com/jsp/article.jsp?id=1202433518513](http://www.law.com/jsp/article.jsp?id=1202433518513)), lawsuits in Canada have been rare. Among the few that have been filed is one that was withdrawn involving a British Columbia woman who claimed laser hair removal caused her to grow a beard. By contrast, there have been several US cases in which millions of dollars were awarded because of serious consequences, including disfigurement and burns.

A Health Canada spokesman said the government has received no complaints about adverse events or reactions regarding laser hair removal devices.

But “if you have been in practice long enough, you’ll always see complications,” Bertucci says. “And complications can happen to anybody. They can happen to physicians, they can happen to nonphysicians. And I think the major thing is being able to deal with these complications as they arise and not delaying treatment, which may result in more permanent consequences.”

Bertucci adds that the question that invariably arises when physicians push for more regulation is whether laser hair removal is, in fact, a medical procedure involving a medical device, or a low-risk operation that does not require extensive medical knowledge.

Hamilton, Ontario-based dermatologist Dr. Peter Vignjevic says lasers fall into the former category. “I don’t think you have to be a brain surgeon to operate a laser, and I don’t believe that you need to be a nurse to be able to operate a laser. But the concern I have is that, because there is no regulation, pretty much anyone and everyone can operate a laser which I don’t think is right, either.”

Vignjevic, an assistant professor at McMaster University, conducts annual training sessions for laser technicians who work in his office. “We sort of have a recertification within the office . . . because there’s no formal body that really does it.”

In British Columbia, the owners of establishments that offer laser hair removal are required to appoint laser safety officers, to train staff and to ensure that they “operate their establishments in a way that prevents health hazards from occurring.”

Neither the BC nor the Ontario governments say they have a record of complaints involving laser hair removal, while Alberta says it does not keep statistics. “We are aware of the issue and are having some discussions, but no direction has been decided upon at this point,” says Alberta government spokesman Howard May.

Even the Canadian Dermatology Association has not adopted a formal position, but it’s an issue of concern and is expected to surface at the association’s annual general meeting this summer, Bertucci says. “I would suggest that anything you are doing to someone else that has a potential to cause disfigurement and other problems and complications — and that influences the skin other than just the top layer, which laser hair removal does — should be considered the practice of medicine. Hair follicles are not just on the surface, they’re underneath.”

Laser devices, used improperly can result in “hyperpigmentation, or darkening, hypopigmentation, or whitening, or scarring,” Bertucci adds. “And if someone using a

device doesn't know how to handle the adverse effects, that puts the patient at risk unnecessarily.”

Dr. Edward Zimmerman, a Las Vegas, Nevada-based cosmetic surgeon and president of the American Board of Laser Surgery, says he's seen all manner of complications and often sees patients on the rebound from ineffective or improper treatments.

For hair reduction, the laser system targets the melanin in the hair follicle and when the procedure is done properly, the heat inactivates or destroys cells in the target area without having a significant effect on surrounding cells, Zimmerman says. The problem is, “the ideal patient never walks through the door.”

“There is always some nuance, there is always some photosensitizer that they [the patient] forgot to tell you about,” adds Zimmerman, who advocates more training of physicians on medical laser techniques and greater supervision of procedures performed by nonmedical operators.

“You need somebody who is familiar enough with lasers and how they work to say, ‘these are the settings we should use today’. Or perhaps we shouldn't do it today if they have been on one of the many photosensitizers out there — everything from blood pressure medicines, to antibiotics, even ginkgo, garlic and ginger, things like that,” he says. “I think it's a little more often than not the nonphysicians who are getting into trouble because they're using cookie-cutter settings to treat everyone who walks in the door, and it just isn't a reasonable thing to do.”

“For instance, somebody on St. John's Wort can be enormously photosensitive ... so the setting that worked on them the last time, will now turn them into a crispy critter, with the potential of burns and scars,” Zimmerman adds. — Virginia Galt, Toronto, Ont.

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