



National Environmental Health Association

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The National Environmental Health Association (NEHA) represents more than 6,700 governmental, private, academic, and uniformed services sector environmental health professionals in the U.S. and its territories and internationally. NEHA is the profession's strongest advocate for excellence in the practice of environmental health as it delivers on its mission to build, sustain, and empower an effective environmental health workforce.

Policy Statement on Microblading

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Over the past 50 years, tattooing has evolved from a stereotyped subculture to commonplace. In the U.S., 21% of adults have a tattoo, which has increased from 16% in 2003 (Braverman, 2012). The use of permanent cosmetics, and more specifically microblading, has also risen in popularity during this time. Microblading is a relatively new type of permanent cosmetic procedure that falls under the definition of tattooing. Microblading is performed with a configuration of needles attached to a handle, often described as a blend between a scalpel and a fine-tooth comb, to manually create small cuts that resemble eyebrow hairs that are then filled in with ink to achieve the appearance of fuller brows (Darby & Darby, 2016a; Food and Drug Administration [FDA], 2017). Environmental health professionals regulate tattoo procedures to protect public health. Not all states, however, classify microblading as a tattoo procedure and it can be exempt from these regulations. This situation creates an environment that allows for insufficient hygiene standards that have been shown to produce greater rates of infection, complications, and disease transmission. Tattoos administered in unhygienic conditions can lead to a host of bloodborne pathogens such as hepatitis C and HIV, in addition to other common infections (Smith, 2003). These instances highlight the need to update requirements for microblading to protect public health and safety.

The National Environmental Health Association (NEHA) advocates for national, state, and local policies, regulations, research, and resources that will enhance the abilities of environmental health professionals to ensure safe body art practices and protect public health.

NEHA recommends the following for state, local, tribal, and territorial governmental agencies:

- Classify microblading as tattooing as listed in the NEHA Body Art Model Code to increase regulation of the permanent cosmetic industry to improve public health and safety.
- Adopt the NEHA Body Art Model Code into state and local laws.

- Reclassify establishments that perform microblading tattoo procedures and permanent cosmetic procedures in the same category as other tattoo establishments so they fall under the jurisdiction of state and local health agencies.
- Ensure that sterilization procedures can be monitored, sanitary practices can be established, and regulations will allow for uniform inspections to increase epidemiological surveillance to provide public health and safety.
- Assure that regulatory agencies have the resources, training, and jurisdiction to conduct inspections of all microblading, permanent cosmetic, and other facilities that perform tattooing.
- Hold microblading and permanent cosmetic procedures to the same sterilization, hygienic, training, and aftercare standards as other tattooing techniques.
- Educate lawmakers and health agencies on the dangers of unregulated facilities and untrained or unlicensed personnel performing microblading and permanent cosmetic procedures on the public.

Analysis

Regulation of microblading varies widely across the country. While the Food and Drug Administration (FDA) can investigate and act to prevent consumer injury after a public health issue is identified, there is no federal oversight for cosmetic or traditional tattooing. Instead, states and other local jurisdictions are largely responsible for regulating tattooing and permanent makeup industries (FDA, 2017). Health regulators in various states have taken dissimilar views on microblading with some considering severe restrictions to the practice and others believing microblading should be exempt from existing tattoo regulations. Lawmakers in Missouri, with support of permanent makeup technicians, recently put forth a bill that would redefine tattooing in the state to include microblading and other types of permanent makeup procedures (“Lack of Regulations,” 2017). Additionally, the Georgia Department of Public Health recently issued a press release stating that under Georgia law, microblading is considered tattooing and can only be performed in a licensed tattoo studio (Hokanson, 2017). Similarly, the Oklahoma State Department of Health specifies that any procedure that affects more than the dead layer of skin cannot be performed by a cosmetology licensed individual (Oklahoma Secretary of State, 2017). Many other states including Idaho, Maryland, and Wyoming, however, do not reference microblading in their regulations (Mercer, 2017). Microblading is often referred to as semipermanent, a term that has created confusion and has cast doubt on whether the practice should be regulated more like traditional tattoos. The shifting use of technologies has also made it difficult for regulators to keep up with the specifics of the practice (Darby & Darby, 2016b).

Due to widely varying regulations and underreporting, well-documented data on microblading procedure complications are lacking. Nonetheless, adverse reactions that vary from mild to severe have been documented after undergoing microblading procedures. In 2003 and 2004, FDA reported more than 150 adverse reactions from certain permanent makeup ink pigment. Additionally, FDA received numerous reports in 2012 of contaminated inks resulting in widespread infection, leading FDA to issue a warning for cosmetic tattooing nationwide (FDA, 2017). Powdered inks sometimes used in microblading can be mixed with contaminated water or alcohol solutions. Some inks, often advertised as organic or natural, are known to turn from black to blue or green. The spreading out of pigment has also been reported in select cases of eyebrow and cosmetic tattooing, causing unsatisfactory and often permanent physical scarring (Lee, Ahn, Choi, Whang, & Lee, 2001).

Other complications that can occur from eyebrow tattooing include reactions resulting in noninfectious or infectious granulomas (raised and reddened tissue) that can spread beyond the tattooed area (Greywal & Cohen, 2016; Ro & Lee, 1991). Granuloma reactions can occur regularly and without warning. Previous skin tattoos in other areas have not been shown to predict or influence the likelihood of a reaction following cosmetic eyebrow tattoos (Cunningham & Feighery, 2015). Additionally, a previous history of drug allergies or medication offers no insight into whether granulomas will develop. Granuloma reactions can take months to resolve and often require extensive treatment with steroids or varying antibiotics (Martín et al., 2007; Sim et al., 2010). Cases can also take months or even years to present themselves, and can appear after repeat procedures (Guerra, Chavez, Welsh, & Welsh, 2016).

Furthermore, eyebrow tattooing has resulted in multiple cases of sarcoidosis, a granulomatous disease that can involve multiple organs including the lungs, eyes, nerves, and skin (Mirzaei, Joharimoghadam, & Zabihyeganeh, 2017; Naeini, Pourazizi, Abtahi-Naeini, Saffaei, & Bagheri, 2017). One study revealed a woman suffering from chronic coughing for nearly eight months because of nodules that had formed in her lungs following an eyebrow tattooing procedure (Landers, Skokan, Law, & Storrs, 2005). Common at the sites of scars, trauma, and foreign body deposition, sarcoidosis can take more than six months to resolve and often results in permanent physical scarring (Ringger & Sluzevich, 2012). Microblading patients might be at an increased risk for these types of injuries and infections since they will likely receive the procedure several times, multiplying opportunities for exposure (Harsányi et al., 2015). These issues highlight the need for best practices concerning sterilization and hygiene requirements.

Justification

While microblading has been heralded by some as an emerging beauty trend or referred to as semipermanent, it is another form of permanent tattooing and should be regulated as such. Streamlining requirements for tattooing and microblading within state and local health jurisdictions will create a uniform regulatory process and improve public health.

The term semipermanent, however, is misleading in several ways. No form of tattooing, including microblading, can guarantee that the pigment will fade away completely in a given time frame. Less ink is used in the microblading procedure, which can indicate a faster rate of fading and a need for more touch up procedures. Additionally, some technicians have claimed that pigment is only implanted into the surface epidermis layer, not the dermis, during microblading procedures, differentiating the process from tattooing. If this were true, ink would fade within a matter of weeks or months, not years (Society of Permanent Cosmetic Professionals, 2018). Finally, the NEHA Body Art Model Code defines tattooing as “any method of placing ink or other pigment into or under the skin or mucosa by the use of needles or any other instruments used to puncture the skin, resulting in permanent or temporary colorization of the skin or mucosa. This includes all forms of permanent cosmetics.” Microblading clearly falls under this definition, as it inserts ink under the skin using needles, results in permanent colorization, and falls under the category of permanent cosmetics.

Similar infections can arise in both tattooing and microblading, yet tattooing is more strictly regulated (Khunger, Molpariya, & Khunger, 2015). Many states have tattoo regulations, but microblading is not always defined as a tattoo procedure. Rates of infection have dropped dramatically since the implementation of public health mandates related to tattooing in the mid to late 20th century that require the use of disposable needles and proper sterilization techniques (Islam et al., 2016). In comparison to tattooing, similar reactions have been documented after microblading procedures, yet the quality of sterilization differs dramatically. Inappropriate hygiene measures in tattooing and

ineffective aftercare are major risk factors for tattoo related infections (Dieckmann et al., 2016). Infection rates from unlicensed body art practitioners using nonsterile equipment or ineffective sterilization methods multiply these risks (Centers for Disease Control and Prevention [CDC], 2006). Standard aftercare instructions should be supplied to clients, but untrained microblading technicians can fail to distribute instructions or supply incomplete information. Unlicensed tattooists using nonsterile equipment in unregulated facilities or settings might offer lower rates, driving up demand for their services while heightening the potential for disease transmission (Coulson, 2012).

Standards of training for microblading technicians might be lower than the core competencies required for body art practitioners and other cosmetic tattooists. States and localities have different licensing requirements and microblading is not always included. Sterilization is particularly important in microblading due to the direct connection between the handle and the needle. A lack of training might lead to a greater risk for contamination due to practices such as the reuse of hand tools and contact between the hand and needles (Darby & Darby, 2016b). Some microblading demonstration classes recommend merely wiping down the microblading handle and needle for reuse on the next client. In contrast, all needles in tattoo studios are sterilized and single use. Reusable or nondisposable devices are autoclaved to effectively sterilize the instruments (Darby & Darby, 2016b). Instruments that cannot be autoclaved must be disinfected by a tuberculocidal disinfectant prior to reuse. Even in comparison to other cosmetic tattoo devices, many microblading handles lack an impermeable hygiene membrane between the hand piece and actual needle. Also, the inks used in cosmetic tattooing and microblading might not be manufactured or regulated in the same way as ink used in tattoo studios, which could increase the risk of infection (Wenzel, Welzel, Hafner, Landthaler, & Bäumlner, 2010). Another issue with the lack of training in microblading is uneven tattooing. While tattoo studios often require apprenticeships detailing needle depth, new microblading professionals might have no experience, resulting in uneven scarring and ink distribution. These problems illustrate the need for better training practices and increased licensing standards to protect public health.

Risk of infection is magnified by unsanitary workspaces that do not meet regulations or recommendations for general tattoo studios. For any type of tattooing, all surfaces should be nonporous and easily cleanable, including floors, counters, chairs, and walls. Many microblading procedures are done in salons where comfort over cleanliness might be emphasized. In addition to taking place next to waxing, hair cutting, and nail procedures, microblading chairs can have pillows, sheets, or rugs. These surfaces are absorbent and could contain blood particles from multiple clients. A tuberculocidal disinfectant should be used to regularly clean all surfaces. Lighting and washing are also important for hygienic workspaces. Procedure and sterilization areas should be adequately lit and contain hand sinks to facilitate proper hand washing practices.

Streamlining regulations for microblading and tattooing will help eliminate public health issues and encourage technicians to seek out certified educational opportunities. Education for other types of cosmetic tattooists is typically provided by technicians with years of experience and formal qualifications. Training organizations can also prepare courses to fit specific health regulations to avoid complications during and after the procedure. The sudden popularity of microblading has left new technicians without sufficient pathways to education and has led to a rise in courses and procedures being offered by people without sufficient training. Consequently, microblading technicians might only receive one to two days of demonstrations and start offering their own services a few weeks later. As a result, important hygiene factors are often ignored, increasing the risk of infection and injury. Trained body art practitioners should be certified through their state or by a reputable not-for-profit representative trade organization if no state or local regulations exist (Darby & Darby, 2016b).

Increased regulation of tattooing has been shown to decrease incidents of infection and injury. Prison populations and other groups participating in unregulated tattooing procedures are more likely to contract serious infections and transmit diseases like HIV and hepatitis C than the general population (CDC, 2006). Additional tattoos, when applied with the proper hygienic guidelines, have not been shown to increase the risk for hepatitis B and C infections. Despite the apparent risks, state and local legislations can lag behind safety regulations (Armstrong, 2005). Microblading is no exception, and several entities have begun to push for more stringent regulations. Support from public institutions and professional permanent makeup organizations cement the need to uniformly adopt microblading into state and local tattooing regulations. This policy change will streamline the regulating process, thereby improving training and sterilization standards, and advance public health outcomes.

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