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Cosmetic Injections: Can They Cause Blindness?

BY **JOAN KRON, CONTRIBUTING EDITOR AT LARGE**, NOVEMBER 5, 2012, 10:00:00 AM



Injecting smile lines and filling cheeks and lips with fat and hyaluronic acid has become so commonplace that some of us consider our twice-yearly visits to the cosmetic doctor as safe as getting a dye job or bikini wax. But a recent review of patient records from South Korea National University's Bundang Hospital found that improper injection of cosmetic fillers—especially fat, but, in a few instances, hyaluronic acid—caused blindness, or partial blindness in one eye, in 12 patients since 2008. True, that's an infinitesimally small percentage of the hundreds of thousands of filler treatments given each year—but still

cause for concern.

To understand how this can happen and how it can be avoided, *Allure* spoke to Sydney R. Coleman, a Manhattan pioneer of fat grafting and a clinical assistant professor of plastic surgery at New York University Langone Medical Center. Patients like the idea of lunch-hour treatments, but when it comes to injections of fillers, says Coleman, a small amount injected slowly is the safest way.

Is this the first you've heard of this blindness problem? "The FDA issued a warning in 1991 saying blindness was a risk of collagen injections and liquid

silicone injections in the face. We know anecdotally that this has happened here in the U.S., but since most cases are unreported, we don't know how prevalent it is. If there is a lawsuit, there is usually a gag order on the involved parties and on the amount of the settlement."

Is blindness one of the possible complications listed on the consent forms patients are required to sign before getting cosmetic injections? "I always inform patients of this possible complication," says Coleman. But other practitioners who don't, *Allure* has heard, are now planning on adding it to their consent forms.

Why did blindness happen more with fat than with hyaluronic acid? "Because fat can be aggregated into a larger drop or bolus than the other semi-solid injectibles such as hyaluronic acid, silicone, Radiesse, Artefill, and Sculptra, or crystallized injectables such as steroids used in nose surgery. If the needle punctures an artery and a line of filler goes in, it can branch out to [smaller] arteries that intersect the arteries of the eye. In most cases of blindness from injections that I have reviewed, this happens most often when sharp needles are used. Injections of filler under the skin are safer with a blunt needle. As another precaution, when I inject fat, I first inject adrenaline to narrow the arteries."

What about Botox and other neurotoxins—can they cause blindness? "No. Botox is not a filler, it is a liquid, and it acts by suppressing nerve action."

Among the 12 patients In the Korean study, in what area of the face were these blindness-causing injections placed? "Primarily in the frown lines between the eyes, known as the glabellar lines, and in the nasal-labial folds—the smile lines—but it can also occur when filling the cheek, temple, or even the lower lip."

Are there any advance warnings that this is happening? "There is usually excruciating pain right after the injection. In that case, breathing air into a paper bag or taking Acetazolamide by mouth can cause the arteries to dilate, increasing carbon dioxide levels and reducing intraocular pressure. If these steps are taken immediately, you might get only partial blindness."

Is the blindness reversible? And are both eyes affected? No, it is permanent and affects just one eye.

How can a patient minimize the risk? After all, she isn't holding the needle. "Choosing a doctor with experience and knowledge of the anatomy is one's best defense. Casual injectors such as gynecologists, general practitioners, nurses, and doctors with dubious credentials who work out of hotel rooms and hair salons—or any doctor who has just taken a weekend course—are less likely

to know the facial anatomy and proper injection technique."

Will I insult the doctor if I ask what kind of needle he or she is using? "It is perfectly fair to raise this question. But speed is also dangerous. When I teach technique, I tell doctors [to] inject in tiny amounts, slowly, using blunt needles so it's not forced into the eye or the brain. You don't want someone who squirts in a big wad of filler fast."

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Artefill, Radiesse, Sydney R. Coleman, and Sculptra, collagen, crystallized injectables, fillers, frown lines, health, hyaluronic acid, injections, silicone, skin, smile lines