Little is known about the patterns, distribution, and extent of dermal filler-induced facial skin ischemia. Most commonly affected angiosome domains are the facial artery (58%) and the ophthalmic artery (48%). Sites showing the highest incidence of skin ischemia include the nasal dorsum, nasolabial fold (Laugh lines), and glabella (Frown lines). Cutaneous ischemic injuries and associated neuro-ophthalmologic complications are observed across multiple angiosomes, with a higher incidence of vision loss and stroke in the ophthalmic angiosome. Severe skin necrosis and neuro-ophthalmologic complications are more pronounced in high-risk areas such as the nasal dorsum, glabella, and forehead. Proposed tools for future reporting include assessment and scoring of patterns and severity of mucocutaneous ischemic injuries employing the proposed FOEM domain angiosomes system. The nasal dorsum, glabella, and forehead are high-risk regions especially prone to filler-induced vascular adverse events resulting in neuro-ophthalmologic complications. Judicious avoidance of high-risk zones and the use of cautious injection technique may reduce the risk of complications.