

Appendix 1 (as supplied by the authors): Minimizing injection pain in local anesthesia. Top Left: Don't insert the needle at 45° and don't inject in the dermis itself as this approach will increase the pain of injection. Top Right: Instead, do insert the injection needle at 90° to the skin and inject in the subcutaneous fat, not in the dermis. This approach will minimize the number of pain fibers stimulated by the needle. Middle: Don't let the needle get ahead of the wheal of local anesthesia (seen in blue) as the sharp bevel will cause pain during the injection. Bottom: Do inject and move the needle slowly with intermittent palpation to be sure there is always 4-5 mm of palpable local anesthetic wheal ahead of your needle for a pain free injection. Modified and reproduced with permission from Mustoe TA, Buck DW II, Lalonde DH. The safe management of anesthesia, sedation and pain in plastic surgery. *Plast Reconstr Surg* 2010;126:165e-76e (© 2010 Wolters Kluwer LWW).

