



Lip Improvement Surgery

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Lip improvement surgery aims to improve the lip outlook in the static & dynamic states in:

1. Congenital deformities
2. Post-trauma conditions
3. Aesthetic needs

Before planning the lip improvement surgery, it is important to examine the patient's face first:

1. Is the lip in good ratio with other parts of the face, like the nose & eyes? (the golden proportion)
2. How is the symmetry?
3. How is the nose?
4. Are the teeth in good colour, mal-aligned, or are there too much / little bony structures?
5. Comparison with family photos, & what's the ethnic grouping?
6. Relationship with other scars on the face?

Lip improvement may not be fully accomplished with soft tissue surgery of the lip alone. Very often the expert management of a Dental Surgeon, an Orthodontist & an Oral & Maxillofacial Surgeon are required for any surgery on the soft tissues of the lip. In reality many patients do not have the resources to solicit the help from so many experts. Sometimes it is the nose that needs improvement rather than the lip. It is our duty to inform them what can be done with present available technology & make adjustments in our surgical planning.

Lip Improvement Surgery in Congenital Deformities

1. In primary complete cleft lip repairs, use the method that does not need to discard the so called "excess tissue". The writer uses the Millard's method.
2. For post-cleft deformities of the lip, interested readers can refer to my earlier article on "Management of Post Cleft Deformities of Lip & Nose" in VOL.12 NO. 11 NOVEMBER 2007 of THE HONG KONG MEDICAL DIARY.
3. For unilateral macrostomia (lateral cleft lip), one can use the measurements from the normal side for reference & planning of the incision lines. The orbicularis oris muscle on the cleft side must be realigned. It is vital to make sure that the edges for skin closure should be free from mucosal tissues; &

this can only be marked up accurately before you inject your diluted Adrenaline solution. Accessory auricle(s), if present, should be dealt with in the same operation session. Associated facial nerve involvement, hemi-facial delayed bony development & microtia should be tackled at older ages.

4. For bilateral macrostomia, there is no reference point available for the surgical planning. The appreciation of the golden proportion will be most important. The writer has no regret using this in surgical planning for his half dozen patients, whether immediate post-op or seeing them again 5 to 16 years later.

Lip Improvement Surgery in Trauma Conditions

- A. For the primary management, after all the cleansing & removal of foreign bodies, it is essential to preserve as much tissue as possible. Head & neck areas have a very good blood supply; & the recovery of those "devitalised tissues" is always a big surprise to the maturing surgeons. Align the muscles correctly before paying attention to the skin & mucosa. As for the skin & mucosa, one needs to realign the vermillion border. When that is done, the rest will be just trivial formalities. Do not consider scar revision before the scar is mature & the patient is psychologically ready.
- B. For the secondary management i.e. scar revision, with always the aim for symmetry, the following principles can be considered:
 1. Contractures can be released by Z-plasty or a local flap
 2. Scar direction can be realigned by scar excision & W-plasty; so that some of the limbs of the W can be parallel to the skin lines. Furthermore the W-plasty scar can neutralise the wedge in & out effects of a linear scar during movement.
 3. Tissue deficiency can be replaced by fat injection, subcutaneous tissue graft & injection of artificial fillers. At this time, safe fillers are still of temporary effect.
 4. Various kinds of laser machine can further smooth out the scar surface & improves the colour.
 5. Training by professional makeup artists (for both male & female patients) will be the final touch up of the problem.



Lip Improvement Surgery for Aesthetic Reasons

1. A short upper lip can be lengthened by release of the frenulum, transverse incision of the mucosa about 5mm from the sulcus & closed longitudinally. Make sure the incision is balanced on both sides, & the depth is adequate & even
2. The vermillion tubercle can be made more obvious by VY-plasty. Again the need of symmetry is essential. The effect can be supplemented by fat injection, subcutaneous tissue graft & injection of artificial fillers.
3. A thick upper lip can be thinned up by tissue excision. Preoperative good doctor-patient communication is essential plus good medical notes. It is important in the preoperative assessment to see the family photos, understand the patient's need & expectation, input the surgeon's opinion, & refuse any unrealistic requests. The patient must be informed of any asymmetry of the lip noticed before the operation. The reference line is the vermillion border. Calipers will be helpful & all measurements should be made before the Adrenaline injection & tissue cut. Make sure the

- depth & amount of the tissue cut are as identical as possible. The approximate location of the labial artery should be noted. Always remember one can cut less than requested because you can always re-operate; & it will be most regrettable if the patient considers you cut more than the request.
4. A thin upper lip can be thickened up by fat injection, subcutaneous tissue graft & injection of artificial fillers, & even transfer tissues from the lower lip in staged operations. Again good doctor-patient communication is essential.
 5. Few people want to thicken up the lower lip.
 6. Many want to thin up the lower lip. The procedure is similar as for the upper lip except it is essential to tighten up so that post-operatively the lower lip mucosa can touch the lower incisors. Avoid the "dropping out" effect on the lower lip.

Lip improvement surgery is fine art work & needs serious & detailed preoperative planning. It should not be consider as an occasional minor procedure.