

Obtaining a good lip roll in congenital, secondary and traumatic cleft lip repairs


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The present article includes a video designed to show the reader/viewer how to obtain a better lip roll in primary and secondary cleft lips as well as in traumatic cleft lips. The key is to not damage the delicate glands and fat in the lip roll. The actual surgery demonstrated in the video is a cleft lip redo with an effaced lip roll.

Key Words: *Cleft lip; Lip roll; White roll*

The lip roll resides at the lip vermilion/cutaneous junction. Although some call it the 'white roll', it is not white in dark-skinned individuals; therefore, we prefer the term 'lip roll'. It is a three-dimensional, hill-like structure with adnexal structures of specialized glands and fat underlying the surrounding tissue that imparts a roll to the lip. One of the most important aspects of obtaining a good result when reconstructing a lip roll is that it heals with a solid three-dimensional hill, bump or roll effect across the scar. If the hill is effaced across the scar, it can be visible across a room to the casual observer. If the three-dimensional roll is maintained across the scar, the lip appears aesthetically pleasing (Video: go to www.pulsus.com). 

Obtaining excellent aesthetic results from cleft lip repairs can be challenging. Many inherent anatomical abnormalities, including short lip, cleft nasal deformity, discontinuous vermilion border with an effaced three-dimensional lip roll, deficient vermilion and a whistle deformity, can result in a suboptimal repair (1-3). Two of the most prominent features in a suboptimal cleft lip repair include a short lip and an effaced, flat, discontinuous, non-three-dimensional lip roll (4). These two features can be quite noticeable in patients in social settings. The video describes the technique and some principles of obtaining a continuous vermilion border with a good three-dimensional lip roll.

The technique begins by marking the upper (yellow mark in Figure 1) and lower (green mark in Figure 1) borders of the lip roll and the remainder of the surgical markings according to the surgical cleft lip repair technique of choice. The lip roll is incised (red mark in Figure 1) with a stab incision using a No. 15 scalpel blade the full height of the roll to maintain the integrity of the three-dimensional structure. The lip is dissected around the roll carefully, ensuring that the lip roll is not damaged by forceps, scissors or sutures. The orbicularis oris muscle is released from the skin and approximated so the lip roll borders approximate without tension. This will restore oral muscular continuity and decrease the tension in the skin repair.

When repairing the lip roll, intradermal 5-0 monocryl sutures are used just above the superior border of the lip roll and just below the inferior border of the lip roll. It is important that no buried sutures are

L'obtention d'un bon ourlet de la lèvre en cas de réparations de fentes labiales congénitales, secondaires ou traumatiques

Le présent article contient une vidéo conçue pour démontrer au lecteur et au spectateur comment obtenir un meilleur ourlet de la lèvre en cas de fentes labiales primaires et secondaires et de fentes labiales traumatiques. Le secret consiste à ne pas endommager les glandes délicates et le gras de l'ourlet de lèvre. L'opération démontrée dans la vidéo est une réparation de la fente labiale au moyen d'un ourlet de lèvre effacé.

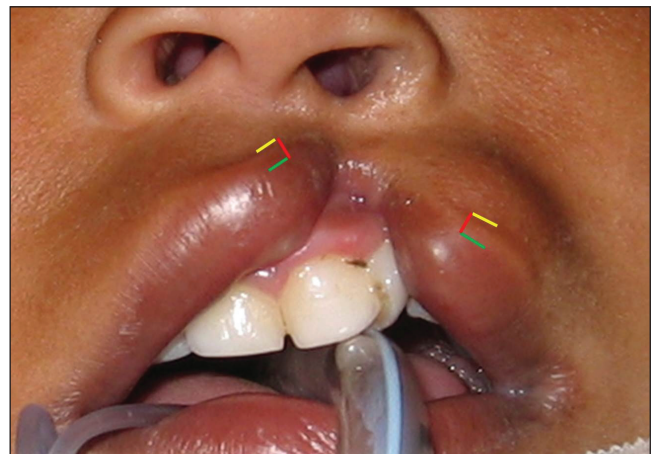


Figure 1 Cleft lip repair. Yellow mark (upper border of lip roll); Green mark (lower border of lip roll); Red mark (stab incision using No. 15 blade to maintain three-dimensional shape of lip roll)

placed in the delicate glands and fat of the lip roll itself. This ensures that the medial and lateral lip rolls are aligned to be continuous and noneffaced without damaging the three-dimensional hill-like structure of the lip roll. The remainder of the skin and the nasal deformity is repaired in a standard fashion but is not discussed in the video.

REFERENCES

1. Mulliken JB, Pensler JM, Kozakewich HP. The anatomy of Cupid's bow in normal and cleft lip. *Plast Reconstr Surg* 1993;92:395-403.
2. Stal S, Hollier L. Correction of secondary cleft lip deformities. *Plast Reconstr Surg* 2002;109:1672-81.
3. Gur E, Zuker RM. The diamond vermilion flap – a new technique for vermilion augmentation in cleft lip repair. *Cleft Palate Craniofac J* 2000;37:123-4.
4. Onizuka T, Keyama A, Asada K, Shinomiya S, Aoyama R. Aesthetic considerations of the cleft lip operation. *Aesth Plast Surg* 1986;10:127-36

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