

Why Repair a Cleft Lip?

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The timing of surgery on the cleft lip has varied from shortly after birth to two years of age; indeed, in some parts of the world there are adults who have never had their cleft lips repaired. The anesthesia has varied among all the poisons—from whiskey, ether, and barbiturates, to novocaine and fluothane. Anesthetics have been injected with needles, fed by mouth, inhaled, or given by rectum. The reasons for repair of the cleft lip are perhaps as varied. Over a period of years, at various meetings, and in published papers, many types of surgical repair have been presented. Discussions about cleft lip surgery have been legion; good results, bad results, and in-between results have been displayed. Since we are mere mortals, our surgery can be plotted on the normal distribution curve: few are excellent, few are poor, most are average. Perhaps in lectures and in publications, the inclination is to use cases from the top of the curve.

What are the reasons for surgically repairing a cleft lip?

For feeding? No. Shown in Figures 1 and 2 are photographs of a 10-month-old child with a bilateral cleft lip and palate and a 2½-year-old child with mental retardation and a unilateral cleft lip and a cleft palate. Neither presents a nutritional problem. Infants do not depend on their lips for sucking and eating. Sucking by a newborn is done mostly with the curved tongue. Closure of the nasal cavity is needed to help complete the suction mechanisms for breast feeding, but it is not essential if the head is held up and if the infant is bottle fed. The adults with unrepaired cleft lips are living examples of satisfactory nutritional status without repair of a cleft lip.

For speaking? No. A newborn child does not speak. Even a 2-year-old child may not be a Demosthenes. An adult can speak fairly well with a lip which is cleft or which is even partially missing. This may not be normal speech, but speech is a medium of exchange like money, and with our present inflation, even this is relative.

For the psychological effect on the child? No. A newborn child could care less. A newborn needs few things: clean pants, food, and burping as necessary. He also dislikes being stuck with pins.

For the much stressed psychological effect on the parents? No. Not

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FIGURE 1. A 10-month-old child with bilateral cleft lip and palate: there is no nutritional problem.

if the surgeon meets with the parents and properly discusses what is known of the etiology of the cleft and the care of the child and what can be done in the future. Not if the surgeon properly discusses the well-being of the child and convinces the parents (and himself) that the ultimate aim in care is to enable the child to take a place in the world as a self-sufficient and good citizen.

Many years ago, Dr. Maurice Hickey,¹ then Dean of Columbia University Dental School, admonished us never to operate on a child with a cleft lip without both parents seeing the child before surgery. Why did Dr. Hickey advise this? So the parents would think the surgeon was great, since perhaps most any result (even the poorest) is better than a wide-open cleft lip? Actually, he meant it for the well-being of the surgeon, parents, *and* the child. If the parents haven't seen the

¹ Personal communication.



FIGURE 2. A 2½-year-old child with unilateral cleft lip and cleft palate with mental retardation but no nutritional problem.

original defect, they are hard pressed to evaluate the surgical result. The blame could easily be shifted to the surgeon who “maimed” the child. Figure 3 is a photograph of a child who had a repair of a complete cleft lip at age 13 days. Perhaps the initial repair wasn’t perfect; perhaps as the child has grown the lip has changed. That this happens was pointed out so well several years ago by Wang (1). The parents are very unhappy with the result now at age 6 months. Think of how much more unhappy they’d be if they hadn’t seen the original problem. Figure 4 is a photograph of the same patient at age 9, which was 8 years after a secondary operation.

If the parents have seen the child and if the surgeon has taken proper time with the parents, they will love the child as they should despite their guilt feelings. Having seen the problem before surgery, an operation at any age will be a good influence in helping them raise the child properly.



FIGURE 3. A 6-month-old child who had surgical repair for a left complete unilateral cleft lip and palate at age 13 days.

We shy away from very early operations because of the possibility of other congenital anomalies which may be diagnosed during the first months of life.

Although great advances have been made in anesthesiology with any anesthetic agent, there is still potential and actual danger, more marked

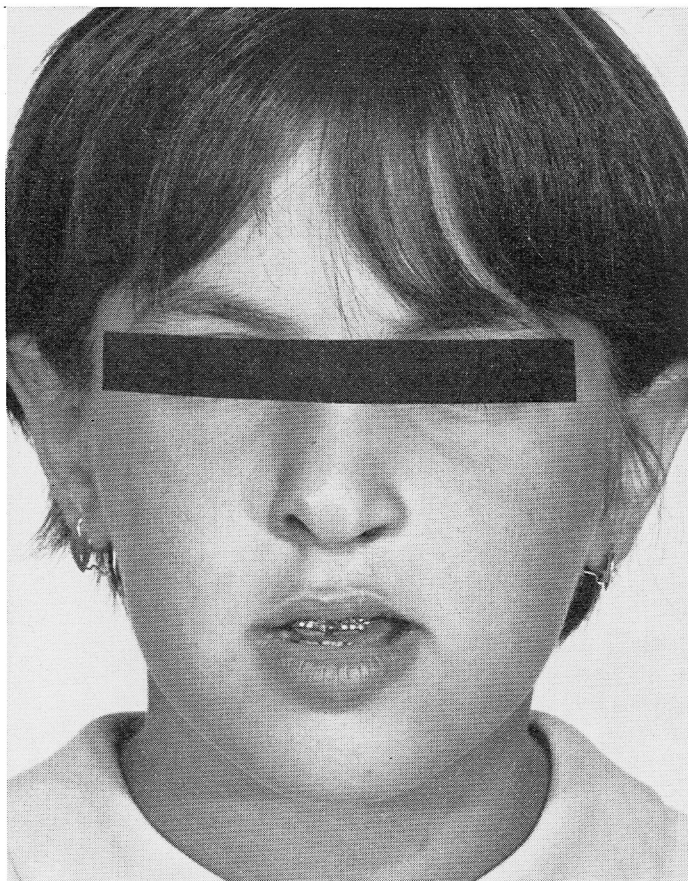


FIGURE 4. The same child as in Figure 3, here 9 years old; 8 years following a secondary operation on the lip.

in the newborn child. Temporary cardiac arrests and periods of anoxia can lead to brain damage which may not be evident until the child is older. I have seen a few children operated on shortly after birth who had anesthesia problems. Whether the brain damage which was evident at a later age appeared subsequently to surgery or whether it was really present at birth has always caused me to wonder.

For cosmetic reasons? Yes. By all means. The objective of cleft lip surgery is to attempt to make the child look eventually as normal as possible (Figures 5 and 6).

This then is not emergency surgery. Recognizing there will always be some type of scar and perhaps some lip imbalance and nasal distortion, within the limits of our capabilities, we repair the lips. There is no set age for surgery; in each instance it must be individualized. The older the child, the larger the tissues, the easier the surgery, and the

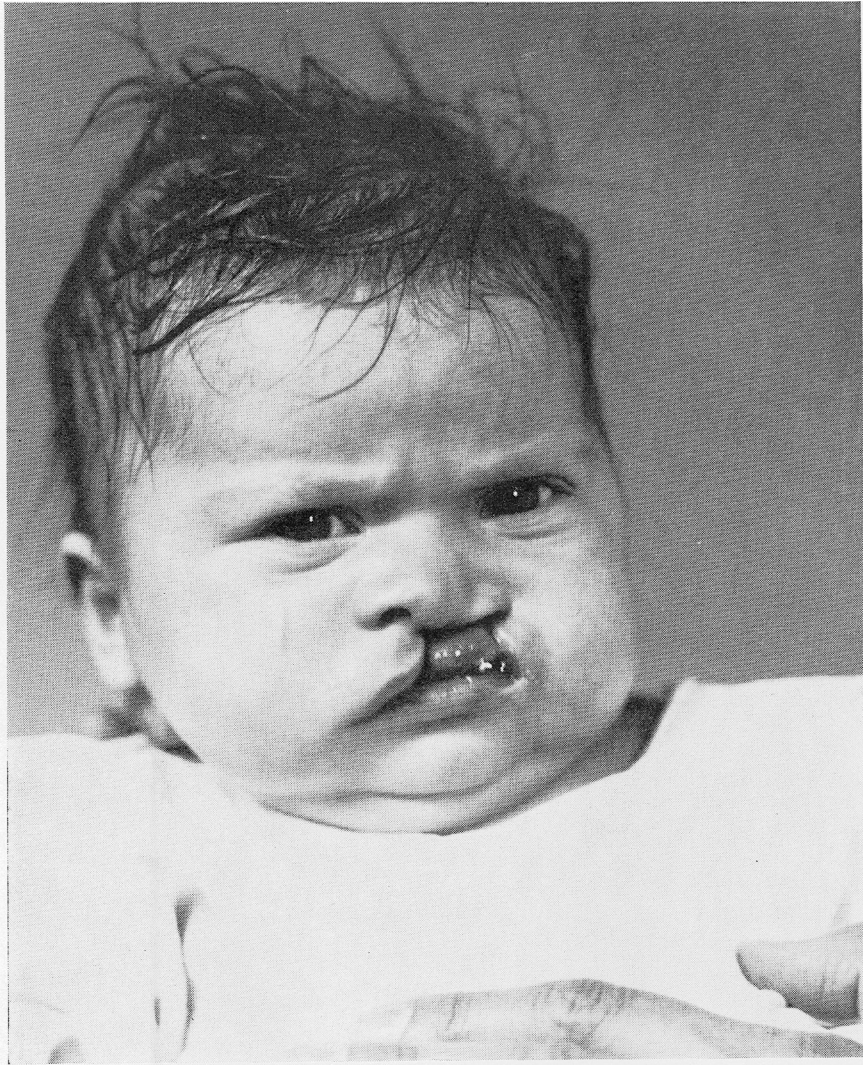


FIGURE 5. Photograph of a patient from our clinic files operated upon in 1935 before most of the present staff perhaps knew cleft lips existed.

less element of error during the operation and as the child grows. Many children may require secondary operations when they are older.

Changes take place after surgery and these must be explained to the parents. It is for this reason that the final evaluation of surgery will depend on the appearance after full face growth has been attained.

The type of operation chosen by any given surgeon should be one with which he is comfortable. The comfort extends not only to the technique and the understanding of the postoperative contractures and



FIGURE 6. A photograph of the same patient as in Figure 5 taken in 1957 at age 22.

releases, but also to the ease of secondary procedures should they be needed.

Some “rules of the road” in cleft lip repair can be illustrated by the following:

- a) Preserve the pout of the lip.
- b) Preserve the white line of the lip (Figure 7). Once it has been destroyed, it is impossible to reconstruct unless an Abbe flap-type procedure is used to transplant the white line from the lower to upper lip.



FIGURE 7. The white line of the lip has been partially destroyed by the primary surgical procedure.

c) Do not make the lip too long (Figure 8). This is more apt to occur in bilateral cleft lips where tissue from lateral segments is interposed beneath the prolabium.

d) Do not make the lip too tight. This can also occur in bilateral cases as mentioned; it can happen in unilateral clefts where too much tissue is removed, especially in the desire to get at muscle for suturing. In our repairs, we make no attempts to see or suture muscle but are guided solely by skin alignment. The secondary repair of a tight upper lip is usually done utilizing an Abbe flap. Occasionally, in a bilateral lip which is too long and too tight, the lateral flaps can be replaced and the lip corrected in both dimensions, but it is difficult surgery and often still leaves much to be desired (Figure 9).

e) Do not make the nostril on the cleft side too small (Figure 10). Many years ago Dr. Lyndon Peer compared nostril size to a bank

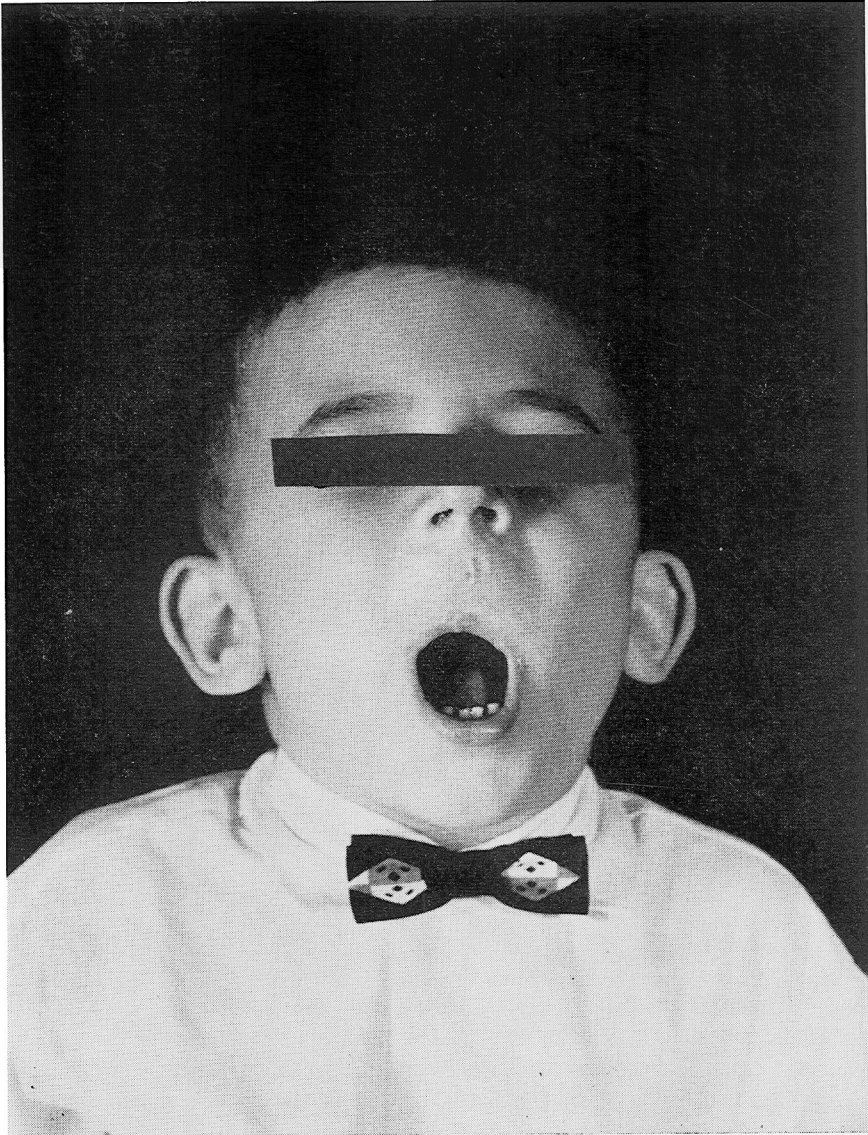


FIGURE 8. A long upper lip in a 5-year-old boy following repair of a bilateral cleft lip in which lateral lip segments had been rotated beneath the prolabium.

account.² It's easier to take money out when you have too much, than it is to put money in if you don't have enough.

f) Keep the Cupid's bow in the center of the lip where it belongs (Figure 11). Revision of this problem is difficult without either destroy-

² Personal communication.

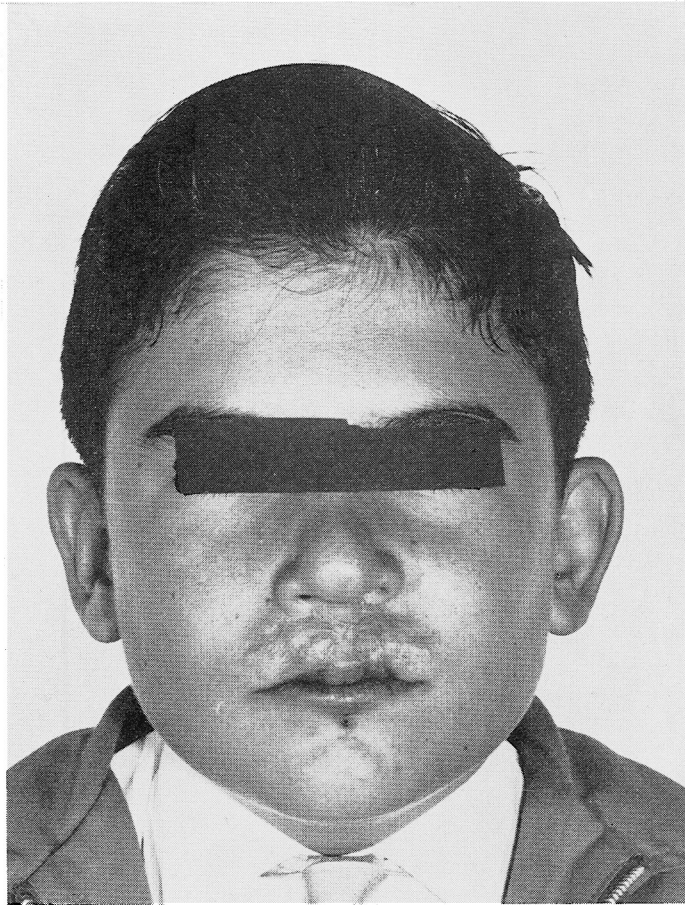


FIGURE 9. The same child as in Figure 8 at age 12. The lateral lip segments have been rotated upward to fit alongside the prolabium and an Abbe flap has been added. Perhaps the next operation should resurface the entire upper lip with a skin graft.

ing the white line or adding more scars to the upper or lower lip. If the surgical technique for primary repair of a cleft lip utilizes the quadrilateral flap, to keep the Cupid's bow in the center, the markings should begin on the noneleft segment to establish the midline, and the lateral segment should be marked to fit. If a rotation flap technique is used, the distance from the midline to the high point of the Cupid's bow on the noneleft side should equal the distance from the midline to the high point of the Cupid's bow on the cleft side; the distance from the high point of the Cupid's bow on the noneleft sides to the lateral commissure of the mouth should equal the distance from the high point of the Cupid's bow to the commissure of the mouth on the cleft side.

g) Try to preserve the philtrum. Since the philtrum is a groove, it is necessary to preserve the lateral crests. This can be done in unilateral

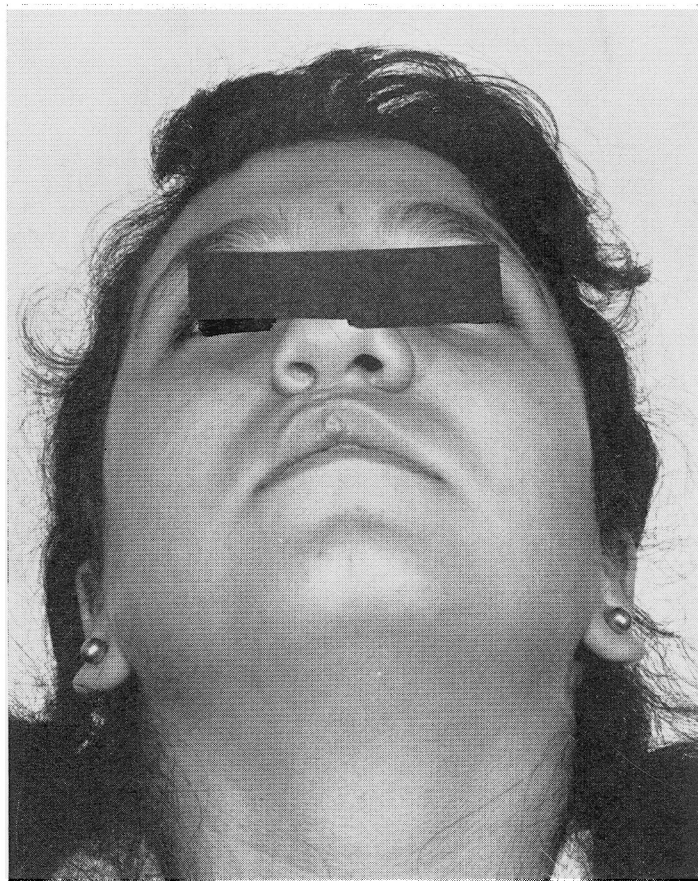


FIGURE 10. The nostril on the cleft side is much smaller than on the noncleft side.



FIGURE 11. The Cupid's bow is not centered in the lip.



FIGURE 12. Bilateral cleft lip and palate at age 1 month.

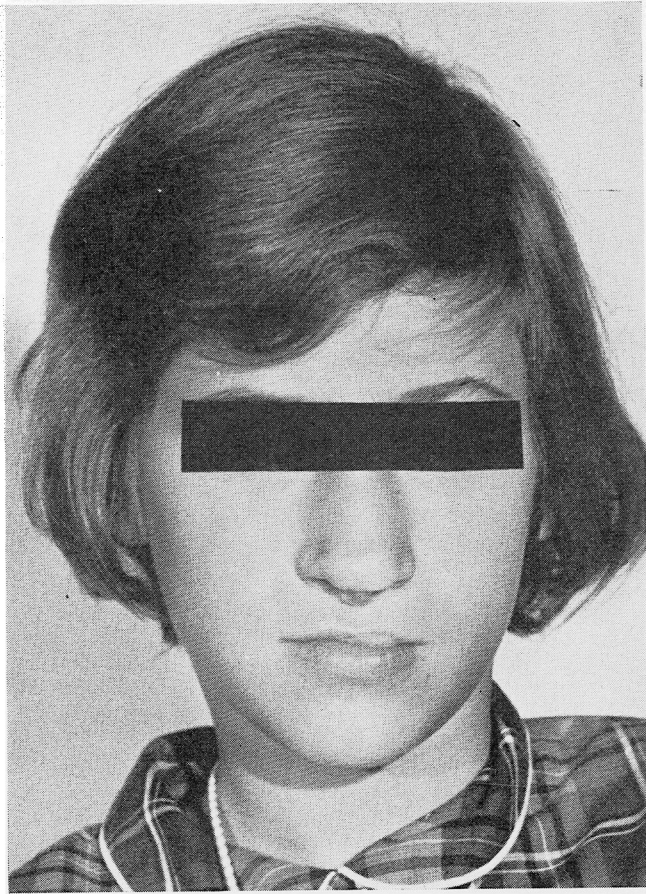


FIGURE 13. The same patient as in Figure 12 at age 10. The vertical scars mimic the philtrum; the columella has been elongated utilizing a composite graft from the ear.

clefts by using the concept of the rotation flap. In the bilateral cleft lip, the crests are not present; the best that can be done is to place the incisions vertically, mimicking the crests of the philtrum (Figures 12 and 13). If the prolabium widens with this type repair, a secondary procedure to narrow the philtrum utilizes this tissue to elongate the columella.

h) This could be a summary of the previous seven: do nothing that may make secondary cosmetic operations difficult since the only reason for surgical repair of a cleft lip is to attempt to make the child look as normal as possible.

Summary

The various possible reasons for repairing a cleft lip have been presented. Some surgical rules of the road have been discussed. Three con-

clusions are presented: 1) the surgical repair of a cleft lip is not an urgent or emergency operation; 2) the initial operative procedure should do nothing to make secondary cosmetic operations difficult; 3) the only reason for surgical repair of a cleft lip is to make the child look eventually as normal as possible.

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Reference

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