

## CHIN ADVANCEMENT

Beauty is defined by features. Features of the face are made up of lines, angles, dimensions and proportions. When you look at a face, you are subconsciously comparing the facial measurements to your inner perception of beauty. Measurements that indicate beauty vary from culture to culture. In western civilization, beauty is defined by a strong angular chin, high cheekbones, a straight-dorsum nose and full lips. In the absence of a well-defined angle from the chin to the neck, the lower 1/3 of the face appears weak. This is called microgenia. With the advanced techniques of today, specialized plastic surgeons can correct microgenia with chin advancement surgery.

Since the Italian Renaissance, both Michelangelo and Leonardo da Vinci continue to influence our perception of beauty. Michelangelo's facial drawings are perfectly proportioned and divide the face into equal thirds as demonstrated in this contemporary sketch (figure 1). His sculpture of David is still an excellent example of these proportions depicting a strong angular chin.

Leonardo da Vinci, like Michelangelo, also divided the face into thirds; the forehead to the top of the nose, the top of the nose to the bottom of the nose, and the bottom of the nose to the chin (figure 2). When contemporary artists superimpose the ears and nose on a Leonardo sketch, these perfect proportions are demonstrated. This anthropometric analysis of the face (comparative measurements) shows the artistic anatomy established by these two great masters and is still taught in art schools today.

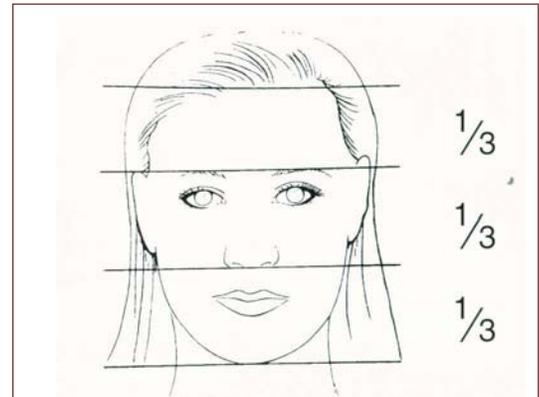


Figure 1

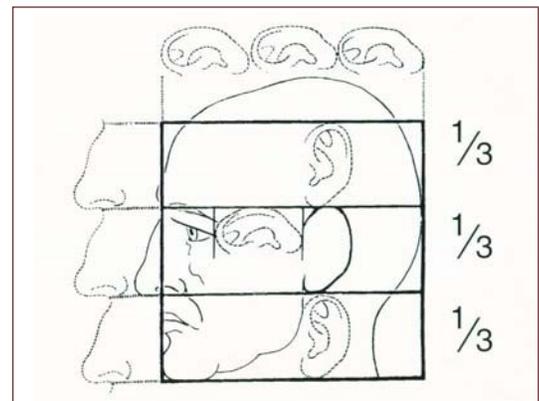


Figure 2

### BEFORE



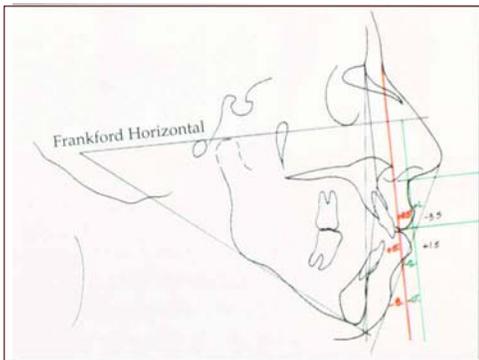
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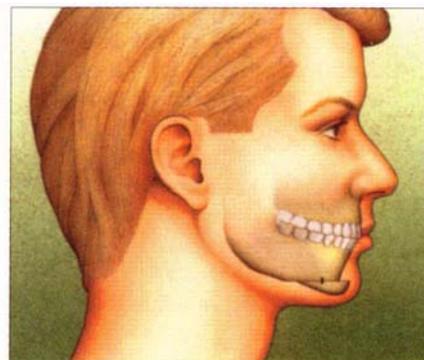
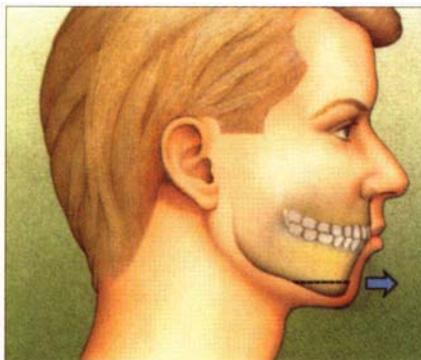
## CHIN EVALUATION

Two x-rays are performed to evaluate a chin advancement candidate. First, a cephalometrogram is taken from the side view with exact detail of the facial measurements. This x-ray is transferred to a tracing sheet and the angles of the face are calculated. Then, the soft tissue of the face and the underlying bony structure is evaluated to determine the degree and extent of the advancement.

Secondly, a Panorex x-ray (a complete view of the mandible or jawbone) is done to determine the position of the teeth roots and the area where the nerves for the lower lip exit from the bone. This allows complete planning of the surgery.



**Figure 3**



**Figure 4**

Many years ago, the aesthetic facial plane was defined and is called the Frankford horizontal. This is a line that runs from the top of the ear canal to the bottom of the eye socket (orbital rim). A line perpendicular to the Frankford horizontal drawn through the flat area above the nose defines the preferred position of the chin. In women, this vertical line might look best if it is slightly behind the lower lip. In men, more advancement looks even better (figure 3).

### **THE PROCEDURE OF CHIN ADVANCEMENT**

This procedure is performed with the patient asleep. An incision is made inside the mouth and the muscles of the chin are moved away from the bone. The midline of the bone is marked and the submental nerves are visualized on either side of the chin. The position of the desired bone incision is also marked and the osteotomy (bone cut) is made with a reciprocating saw. The cut segment of the bone is freed from the mandible (jawbone) and advanced a predetermined amount. This is held in place with wires or a small plate. The muscles are re-sutured and the incision inside the mouth is closed with dissolvable sutures (figure 4).

Although chin advancement surgery is very scientific in its measurements, the amount of advancement that can be achieved varies. The factors that influence the final results are: thickness of the bone, the angle of the jaw, the position of the teeth roots and submental nerves, and the compressibility of the soft tissue. The soft tissue overlying the bone does not advance the same amount as the bone. This advancement, however, does improve the neck angle similar to a facelift.

Just as the bone is moved forward when the chin is recessive, the bone can also be moved backward when the chin is too prominent. This surgery is performed the same as an advancement but the excess jawbone is shifted backward.

### **COMBINATION PROCEDURES**

#### **Rhinoplasty**

Frequently a weak chin is seen with a prominent nose. Chin advancement surgery gives the appearance of a smaller nose and a more balanced face. Amazing changes can result, however, when a small reduction in the size of the nose is performed at the same time as a chin advancement.

**BEFORE**



**AFTER**



**BEFORE**



**AFTER**



**BEFORE**



**AFTER**



**Facelift**

When a patient has a weak chin as well as an aging face, a chin advancement can be performed with a facelift. The extension of the mandible gives an even more defined jaw line.

**BEFORE**



**AFTER**



**Neck Liposuction**

Often patients with a recessive chin have a full neck with extra fat. Dramatic improvements can be made when a suction lipectomy (fat suction) of the neck is performed at the same time as a chin advancement. Conservative liposuction may also be performed above the jaw line on the jowls to accentuate the chin.

**BEFORE**

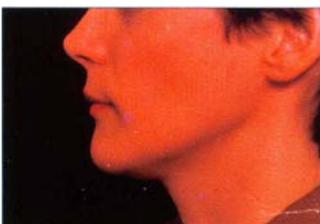


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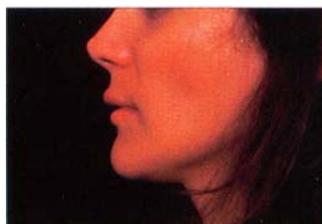


**LOWER LIP**

**BEFORE**



**AFTER**



**UPPER & LOWER LIP**

**LIP AUGMENTATION**

Long ago, Dr. Robert Ricketts, a renowned specialist, noted the preferred position of the lips in relation to the chin. He believed that fullness of the lips was a characteristic of youth. He also observed that excessively flat or pursed lips were not attractive and that flattening of the mouth increased with the aging process.

Plastic surgeons, also recognizing the important relationship between the lips and chin, have tried many techniques to augment the lips. Procedures such as liposuction with fat injections, artificial materials, or flaps from inside the mouth, either do not last or leave visible (and unrepairable) irregularities in the lip.

Today the best procedure for augmentation of the lips, uses the patient's own tissues. A dermal fat graft takes a scar or skin from somewhere else on the body (at least 7cm in length). The outer layer of the skin (epidermis) is removed and the remaining dermal graft is threaded into the lip from small incisions near the corners of the mouth. After a period of swelling, over 2/3 of the graft remains. This reconstructive technique has been used in facial injuries by plastic surgeons for decades and is very dependable and long lasting.

## CHIN IMPLANTS

Occasionally, chin implants are chosen to be placed. These silicone implants are best in people who need minimal advancement (i.e. 3-4mm). If larger implants are used, they can show through the skin and cause dimpling in the soft tissue. Also, with the constant pull of the mouth muscles, it is common to see an implant riding high on one side. This can give the appearance of a weak smile. Furthermore, with years the implant tends to erode into the bone, decreasing the amount of advancement and actually becoming encased in the bone. The scar tissue around the chin implant contracts and gives a ball like look to the chin.

Some cosmetic surgeons have been touting a "weekend face lift" for the aging neck and face. This procedure consists of liposuction of the neck and placement of a very large chin implant. The hope is that the excess loose skin resulting from the liposuction will be filled in by the implant. Unfortunately, this gives people an over prominent lower face and does not appear attractive. Patients need to be aware that the chin implant cannot be removed because the mentalis muscle of the chin has been over-stretched and lifted from the bone. Removal of the implant creates a droop to the chin with the lower teeth constantly exposed and frequently leaves a ball of dimpled soft tissue over the chin.

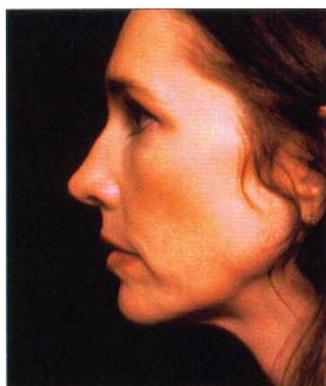
## CONCLUSION

Chin advancement can make very impressive changes in the facial appearance. No implant or foreign material can give the same natural look as a chin advancement using one's own bone. It can disguise a strong nose, a prominent overbite or a loose neck. It is a wonderful procedure that can make physical improvements that can alter the perception of a patient by others and improve his or her self-image.

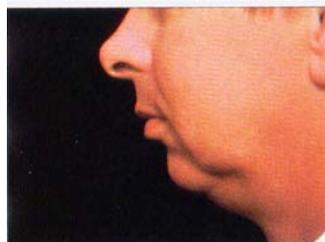
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**AFTER**



**BEFORE**



**AFTER**



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## Questions and Answers About Chin Advancement

1. How do I know if I'm a candidate for chin advancement surgery?  
A photo taken from the side view will show a chin that is markedly behind the lower lip.
2. Where is the incision?  
The incision is made inside the lower lip along the gums. This incision is closed with dissolvable sutures.
3. How long is the recovery?  
The recovery takes 4-5 days. During this time, tape is placed over the chin area for support. Once the tape is removed, patients generally return to work.
4. Is it painful?  
No, there is very little pain or discomfort. Actually, the gums and chin are numb for several weeks.
5. Is there any bruising?  
Usually there is no bruising unless liposuction is performed at the same time under the chin.
6. Does chin advancement change the position of my teeth?  
No. The teeth are not affected.
7. Does having TMJ syndrome prevent me from having chin advancement surgery? No,  
not at all. The surgery involves only the center of the mandible.
8. Will chin advancement surgery weaken my jawbone?  
No. The bones are held in place with permanent wires. After 3 weeks, similar to other facial bones, a fibrous union forms between the bones.
9. How long will it take to see the final results?  
The profile changes are immediate. The frontal changes, however, with roundness and swelling of the chin take 6-12 months to fully resolve.
10. Will it change the way that I look?  
Yes. Chin advancement is one of the most dramatic profile-altering procedures I perform, however, from the front view, there is only a small change.

## “HOW HAS CHIN ADVANCEMENT SURGERY AFFECTED YOUR LIFE?”

- ❖ *I am very pleased with the results of my chin advancement. This is a worthwhile investment because the procedure is permanent. My chin is proportion to the rest of my face, and overall - my face is balanced. I no longer feel self-conscious about my face or profile. I feel great! - **T.M.- Yorba Linda***
- ❖ *I consulted with Or. Benvenuti because my profile was not what it should be. I felt that my chin was weak. I knew that in my position (Sales & Marketing) I needed to project more confidence and self-assurance. I really did not need much advancement in the chin area, but what a difference it made! I am really happy with the result and have completely forgotten that this is not the chin I was born with. As to the procedure, there was some discomfort and soreness for the first two days. Initially my chin was quite swollen, but the swelling subsided rapidly. By day five, my chin looked almost the way I had envisioned and by two weeks, it was perfect. - **S.K.- Tustin***
- ❖ *It has been 10 years since I had my chin advancement surgery, and I still love it! Initially, whenever I would pass by a mirror, the reflection seemed to be someone else and it took my breath away. I looked easily 10 years younger with my sculpted jaw line. It was virtually a painless surgery. Although I was not in pain, I was afraid to move my lips. This was ridiculous of me. I had to consciously force myself to move my lips when I spoke. Now after 10 years, I need and am ready for more plastic surgery.  
- **J.G.-Laguna Beach***
- ❖ *Even though I feel young for my years, I noticed a sag to my neck when I looked at my profile. An overbite accentuated the problem and created the look of a weak or recessive chin .I was not aware that there was anything to correct this problem until I consulted with Or. Benvenuti. He suggested the chin advancement procedure. Now not only is my profile perfectly aligned, but I have a nice, taut neck. I look as young as I feel! - **D. Anne-Laguna Beach***
- ❖ *Recently, I sat next to a plastic surgeon at a dinner party. I told him to guess what cosmetic procedure I had had on my face. After much scrutiny and discussion, he gave up. I told him that I had a chin advancement surgery. He asked if he could examine my chin and jaw line. He was extremely impressed! He said it was so natural and that he could not feel any signs of surgery. He said that my chin was perfect and that no chin implant (which can be felt and seen) could ever compare. - **Jean M.-Anaheim Hills***
- ❖ *No one has EVER complimented my profile until I had my chin advancement surgery. Just the other day, a stranger said, "Has anyone told you what a beautiful profile you have?" I had to honestly answer - No. It felt so good!  
- **D.D.- Los Angeles***
- ❖ *"It changed my life! I have lost 40 pounds and have much more self-confidence. Before, my husband traveled constantly, but now he never leaves me home alone." - **J.F. - Fountain Valley***

### David Benvenuti, M.D., F.A.C.S.

Plastic and Reconstructive Surgery

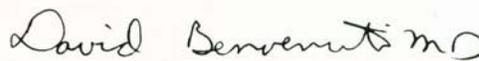
Dear Patients,

This issue of Afterimage is dedicated to Chin Advancement which enhances ones appearance whether it is done alone or in combination with other procedures.

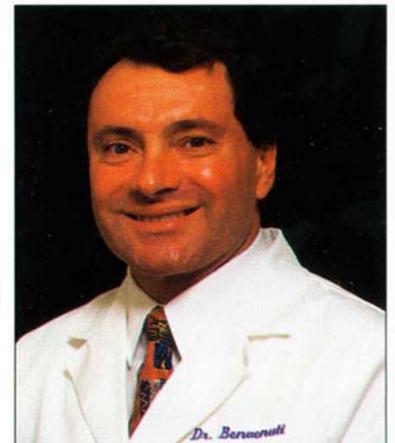
As always, my staff and I are dedicated to providing you with the highest quality of medical care. We look forward to consulting with you on this or any subject related to plastic and reconstructive surgery.

Please call me with any questions or comments at (949) 650-2345 or visit us at our website - [www.after-images.com](http://www.after-images.com).

Best Regards,



David Benvenuti, M.D.



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355 Placentia Avenue • Suites 99 & 104, Newport Beach, CA 92663  
(949) 650-2345 • FAX (949) 650-6817  
Website: [www.after-images.com](http://www.after-images.com) • Email: [info@after-images.com](mailto:info@after-images.com)