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# How to Avoid Pseudoptosis after Lifting and Breast Reduction Mammaplasties

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**ABSTRACT**

Pseudoptosis or "bottoming-out" is a common complication following breast reduction. It is secondary to five causal phenomena: improper determination of nipple placement, dissociation of the nipple from the gland, dissociation between different parcels of a reconstituted breast, improper evaluation of the skin to be resected and weakness of the inferior dermal arch. The total posterior pedicle breast reduction technique was described by Richard Moufarrege in 1982. It consists of dissecting the skin away from the breast tissue offering free access to all breast quadrants. This technique is known for its robust blood supply to the nipple areolar complex, the preservation of the nipple areolar complex sensation, and for the conservation of the breastfeeding function. In this article, we also elucidate the reasons why the Moufarrege Total Posterior Pedicle breast reduction technique has a lowest rate of postoperative pseudoptosis.

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## 1- INTRODUCTION

Before the Total Posterior Pedicle (1,2), positioning the axis of the nipple was based on standard distances spanning from the nipple to the sternal notch and between the two nipples (3–5). These standard distances were irrespective of patients body particularities, height, frame, shape and thorax dimensions. In the surgical community collective unconscious, the sternum-nipple distance was scaled down to hopefully optimize breast lift efficiency (6). This concept is not actually suitable. Indeed, very frequently, after months or years post reduction or breast lift surgeries, breasts end up with a nipple too highly attached to the skin, with a breast which has slipped downwards, thus causing a defect commonly referred to as Pseudoptosis.

Very few authors can pretend having performed such a number of mammaplasties with the same technique for 40 years. This gives me the incontestable privilege of watching and monitoring results on very long term.

## 2- PSEUDOPTOSIS PHYSIOPATHOLOGY

Post-operative pseudoptosis is secondary to the following five causal phenomena:

### Improper determination of nipple emplacement

An important factor conducting a reduced or lifted breast to pseudoptosis is an excessively high positioning of the nipple (7,8). This positioning was done for a long time with 21, 20 or even 19 cm sternum to nipple distances as mentioned above. This positioning method did not consider each patient peculiarities (fig.1).

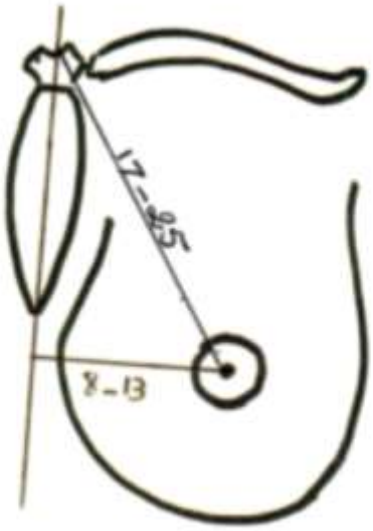

**Figure 1: Possible variations in distances between cardinal points: great variations from one patient to another.**

**Dissociation of the nipple from the gland**

Most of traditional mammaplasty techniques maintain vascularisation of the nipple by a dermal or dermal and fatty or even dermal with fat and tiny glandular tissue pedicle (9–13). This will deprive the nipple from its cohesion with the gland, thus allowing a descent of the breast under the nipple level. The nipple, instead of being pointing frontally at the most projected region of the breast, will be placed too high, on the flat area of the upper quadrant, oriented upwards (fig. 2).

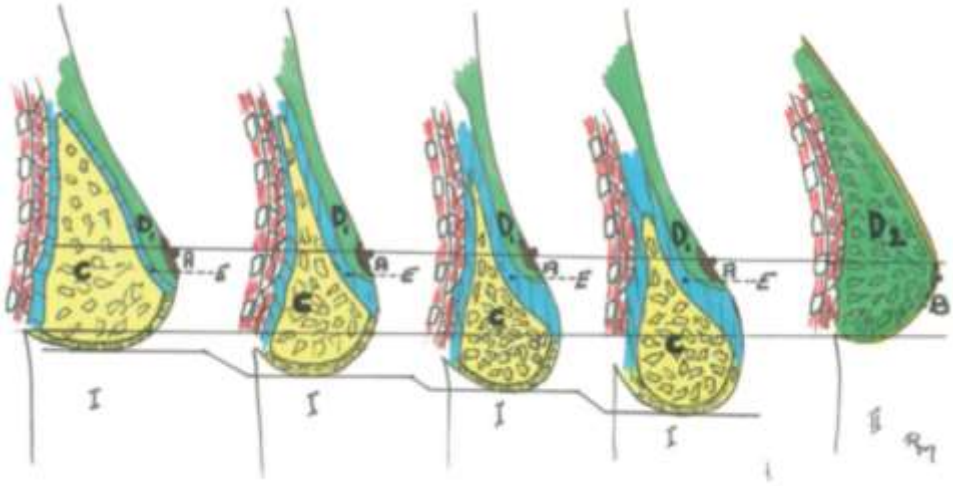

**Figure 2 : Progressive pseudoptosis represented in the second, third and fourth section of this figure. The NAC, on a superior pedicle (in green), is dissociated from the rest of the gland. The blue area represents the line of separation between the pedicle and the gland. The fifth section of the board (entirely green) represents the breast after the Moufarrege total posterior pedicle mammaplasty; there is no blue section as there is no dissociation between the NAC area and the remaining gland.**

**Dissociation between different parcels of a reconstituted breast**

Breast tissue does not heal in the same manner as other tissues. For example, tendons and aponeurosis heal once segments are properly oriented providing a bigger strength to the tendon than the one it used to have before a section (14). Dermis recover its strength 3 weeks after suturing (15). In contrast, breast tissue does not contain the same healing factors, mainly myofibroblasts, so that the tensile forces at the union surface between two divided parcels of the breast will suffer a certain lack of cohesion, and will develop a certain looseness (16). This will result into a drop of the hanging breast parcels with the effect of gravity. This is of major importance in the pseudo-ptosis phenomenon.

**Improper evaluation of the skin to be resected**

All traditional breast reduction or breast lift techniques use the same pattern for skin resection regardless the severity of breast ptosis. Skin resection based on these patterns would accommodate a certain standard clientele, but would also

mislead surgeons with a non-neglectable number of patients (17,18). Thus we believe that skin resection should be adapted to each patient following a well-established rule as presented in the Moufarrege Total Posterior Pedicle (1,19)

**Weakness of the inferior dermal arch**

In most of traditional mammaplasties, little attention is paid to strengthen the lower breast pole. The skin in this area undergoes unavoidable downward traction effects due to gravity which, with persistence and lack of support, will create an elongation, and thus lead to a downward migration of the gland under its desired position, encouraging the pseudoptosis phenomenon (20,21).

## 3- THE TOTAL POSTERIOR PEDICLE PHYSIOLOGY AND ITS ROLE IN THE STABILITY OF LONG TERM RESULTS

**Proper nipple positioning**

Instead of basing the nipple position according to a precise distance from the sternal notch, the Moufarrege Total Posterior Pedicle adapts a safer way to avoid mispositioning (1): the nipple is placed on the breast axis at the inframammary fold height (fig. 3). This will avoid having the nipple too high as we can see in a large number of traditional mammaplasties long term results (fig. 4).

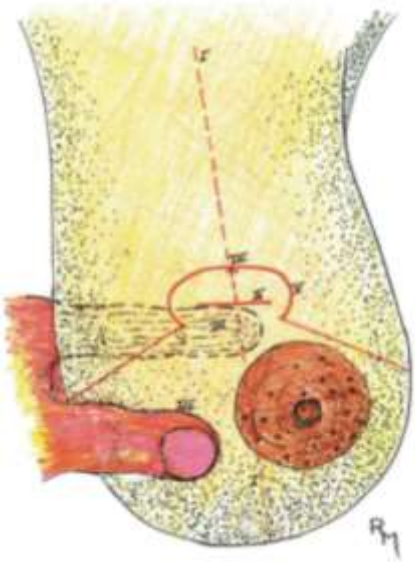

**Figure 3: Total Posterior Pedicle: designing the new location of the NAC. I: breast axis, II: IMF level, III: surgeon's finger, IV: upper border of the new areola, V: new areola marking.**

**Figure 4: Classical pseudoptosis after a traditional mammaplasty technique**

**Cohesion between the nipple and the gland**

The Moufarrege Total Posterior Pedicle keeps the nipple areola complex completely attached to the full remaining breast block. Regardless of the weight of a given breast and the traction it exerts on the tissues, the remaining volume of the breast remains united to the nipple and cannot get away from it causing pseudoptosis (1,2). Furthermore, the whole volume of the superior breast quadrant cannot slide behind the nipple because the latter is still part of the remaining mammary block. Thus, the superior breast quadrant can only retain the upper breast volume leading to an upper pole

fullness, rarely encountered in traditional mammoplasties (fig. 5).

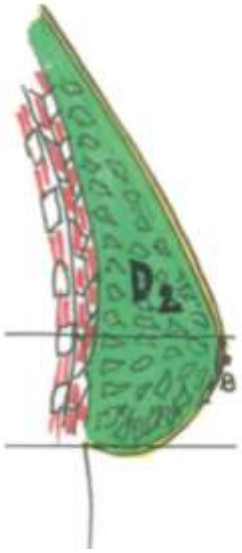


**Figure 5: The Moufarrege Total Posterior Pedicle: no dissociation between the tissues holding the NAC and the rest of the gland. The breast remains in the same block of gland; the entire upper quadrant cannot slip under the level of the NAC and constitute the pleasant convex volume of segment I**

**Skin resection adapted to each peculiar patient**

Differently from traditional techniques, the excessive skin surface to be resected in the Total Posterior Pedicle is proportional to the degree of ptosis and change from one breast to another. This excessive skin to be resected depends on the angle opening of the keyhole arms. The more important the degree of ptosis the wider the angle (1,19). For a breast without any ptosis (class I), the angle is set at 90°-100°. For a class II ptosis, the angle spans between 140° and 150°, and for class III (extreme ptosis), the angle is 180° (fig. 6). The adaptability of the cutaneous resection to the degree of ptosis thus prevents primary pseudoptosis caused by insufficient resection of skin.

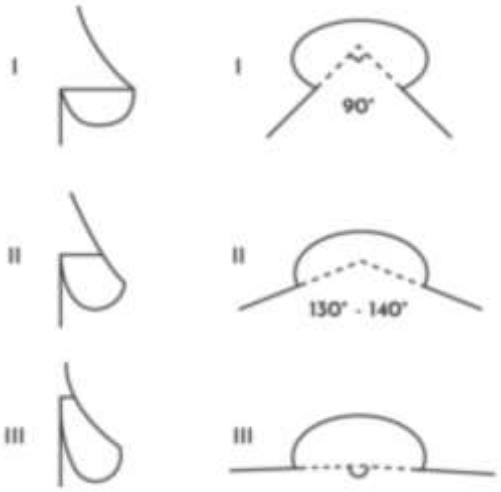


**Figure 6: The Moufarrege ptosis classification and its application in the Total Posterior Pedicle design. Class I: 90-100 degrees angle. Class II: 140-150 degrees angle, Class III: 170-180 degrees angle.**

**The inferior dermal vault**

The conservation of a dermal pedicle lining the segment III skin in the Total Posterior Pedicle mammaplasty provides an effect of an inferior dermal vault that protects against the stretching of the vertical line and its elongation. This vault is constituted by the plication of the de-epithelialized infra-areolar skin buried under the skin flaps that are joined at the vertical line (1). These plications result from the reduction of a 10, 15, 20 or more cm to a 6 cm segment III length (fig. 7).

**Figure 7: Sagittal section of the breast after reduction; note the plication of the inferior dermal tissue which will act as inferior vault avoiding stretching and pseudo ptosis.**

## 4- CONCLUSION

The Moufarrege Total Posterior Pedicle is the mammaplasty technique which has the capacity, more than any other technique, to deliver most constant long term results with the less risk of pseudoptosis (figs. 8-11).

**Figure 8: 10 years postoperative appearance of a breast reduction with the total posterior pedicle**.

**Figure 9: 12 years postoperative appearance of a breast reduction with the total posterior pedicle.**

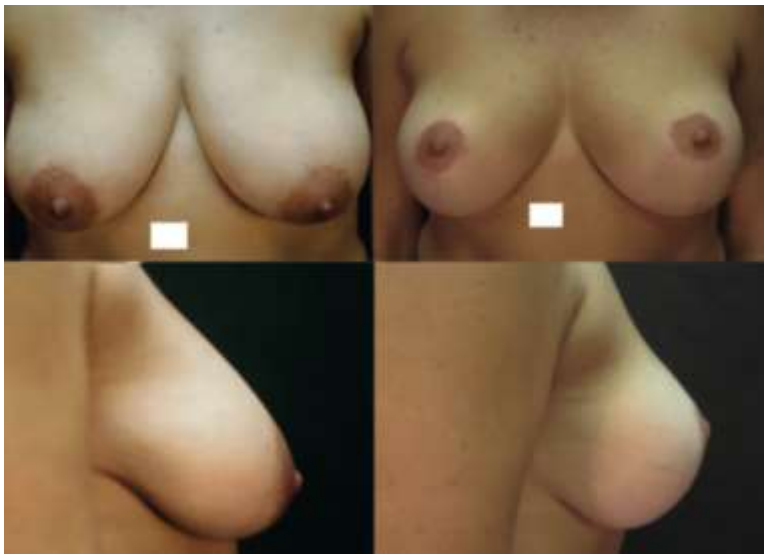

**Figure 10: 10 years postoperative appearance of a breast reduction with the total posterior pedicle.**

**Figure 11: 20 years postoperative appearance of a breast reduction with the total posterior pedicle.**

**Figure 12: 15 years postoperative appearance of a breast reduction with the total posterior pedicle.**

**Figure 13: 10 years postoperative appearance of a breast reduction with the total posterior pedicle.**

**Figure 14: 10 years postoperative appearance of a breast reduction with the total posterior pedicle**.

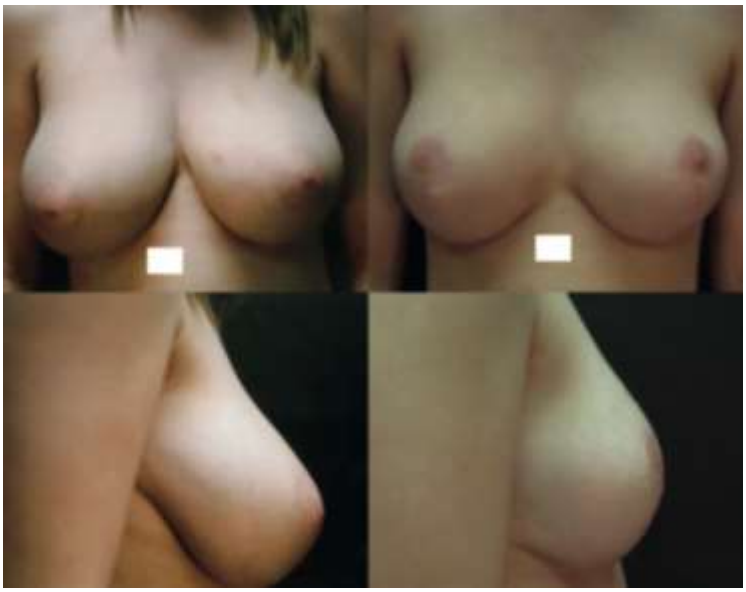

**Figure 15: 10 years postoperative appearance of a breast reduction with the total posterior pedicle.**

**Figure 16: 12 years postoperative appearance of a breast reduction with the total posterior pedicle.**

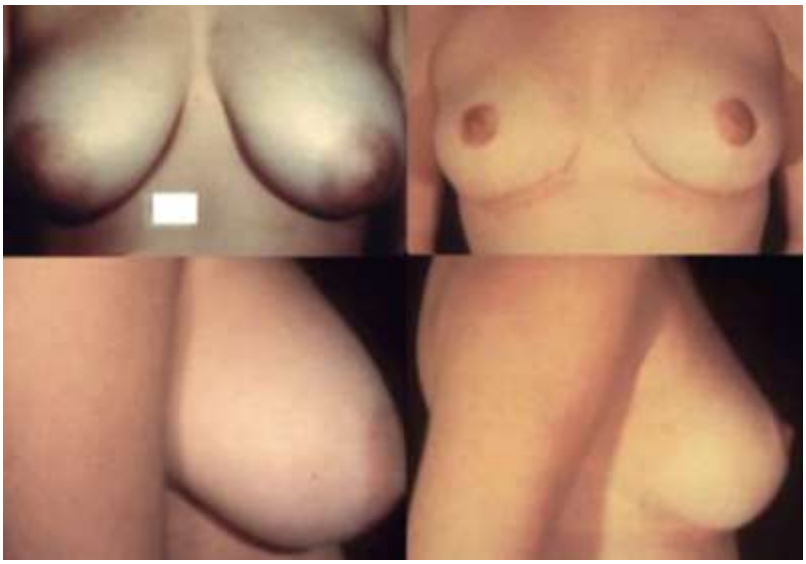

**Figure 17: 15 years postoperative appearance of a breast reduction with the total posterior pedicle.**

**Figure 18: 15 years postoperative appearance of a breast reduction with the total posterior pedicle.**

**Figure 19: 10 years postoperative appearance of a breast reduction with the total posterior pedicle.**

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