

Bioplasty

The Plastic Surgery Without Cuts

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The aesthetics fields of medicine have developed quickly abroad and mainly in Brazil, one of its largest centers in the world. The doctors in these specialties need to recycle frequently under the risk of turning obsolete, such the speed of the progresses. We've experienced the revolution caused by Botox, the LASER, the lipoesculpture, the cosmiatry, and the Fillings, among others. Now, a new evolution begins to happen. It is known as Bioplasty, the plastic surgery without cuts, which can be applied to the face and the body.

Due to the fact that it does not make use of cuts, it doesn't need great anesthesia, it allows the patient to return to his routine immediately after the procedure, and mainly due to its good results, Bioplasty brings to body and facial aesthetics the same trend that has been observed in all fields of the medicine: the Minimally Invasive Treatments

Bioplasty has already been used almost secretly by famous, Misses, models, artists, and people who depend on good looks all over the world. Many international stars have come anonymously to Brazil to be treated. Arab Sheiks and petroleum millionaires have invited Brazilian doctors to go to the Middle East to perform buttock enlargements and to harmonize the face and body of their women . It all has happened in a very discreet way. Bioplasty is getting more popular. Not only famous but also ordinary people long for its benefits and a revolution in medical aesthetics begins to take place.

Bioplasty has a lot of applications, that can be divided in 3 fields :

Bioplasty - Beauty Improvement

People can enhance their appearance using the improvements of the beauty signs offered by Bioplasty .
Bioplasty can treat the face and the body.

II – Bioplasty - Rejuvenation

Modifying the facial volumes, redefining the jaw line , correcting wrinkles and folds , recovering the volume of the hands, Bioplasty turns back the hands of time.

III – Bioplasty - Corrective

The technique allows to correct aesthetic defects as the shape of the nose, the volume of the lips, the retracted chin, and the jaw line without surgery.

Bioplasty - Beauty Improvement

The Face

The lines that give harmony and beauty to the face have been studied. It was noticed that beautiful women in the Western World have some characteristics in common: a more prominent malar bone , a well marked jaw outline, a light depression in the cheek - the “blush effect” – and a well established proportion between the nose and the chin. These characteristics are widely known in the fashion industry and in the marketing field. A lot of models are chosen based on these characteristics. These characteristics are also frequently observed among artists of success, to whom the facial beauty is quite important.

Also, for the men, we can find these well established characteristics of facial beauty: A large jaw, is masculine. Men need a more defined jaw, a more right mandibular angle is also important. Bioplasty can create or enhance these beauty lines in the face, increasing the malar area and defining the jaw. Bioplasty can work on the nose and the chin. What is really important is a balanced relationship among the structures of the face, including the nose, the chin , the malar bone and the mandibular area.

This is the type of Bioplasty that improves the beauty. Bioplasty can make even more beautiful what is beautiful already and it offers better facial and body harmony for who were genetically not favored. Bioplasty can also increase the volume of the lips, correct the nose, the chin and imperfections, and give a better appearance in an easy way, without cuts or surgery .

The Body

With the same idea, we can also use the technique for the body. Bioplasty has been used mainly for buttocks and calf augmentation . The role of the buttocks in Brazilian women's beauty standard and now for women all over the world is easily perceptible when we observe the beachwear fashion. We can notice the exhibition and valorization of this part of the body exalted in Brazilian’s beachwear fashion, the famous "Tanga".

Bioplasty also gets to enhance the beauty of the body, augmenting and remodeling the buttocks, as well as the calf.

II - Bioplasty – Rejuvenation

The Face

In the aging process, sagging, drooping and wrinkling of the skin occurs naturally on the face and the neck. Not only the surface of the skin but also the deepest layers also change and lose volume due to fat loss and the tightening of the muscles. Then, wrinkles, large furrows, folds and laxity appear. We can notice the loss of the definition of the jaw, with the face skin being blended with the neck skin. The unpleasant double chin of flaccid skin occurs under the chin. Bioplasty for rejuvenation acts reestablishing volumes, redefining the jaw, and correcting furrows, folds and wrinkles. As part of the process, the beauty signs are created or reestablished, allowing an improvement of the appearance. Bioplasty doesn't compete with the other methods, like the cosmiatry, the botulinum toxin, the LASER and the peelings, that can also be used complementarily. Bioplasty, always in a Minimally Invasive way, recovers and maintains the beauty.

The Body

The hands also suffer the aging process, with the loss of conjunctive tissue. A thinner skin shows more laxity and age spots. The back of the hands reveals the tendons and the veins, giving them an aged aspect. Bioplasty can recover these volumes and disguise veins and tendons. Along with associated treatments to improve the quality of the skin, such as cosmiatry and LASER / Photorejuvenation, it is possible to recover the aesthetics of the hands.

III - Bioplasty - Correction

Bioplasty can correct alterations, such as the tip of the nose, the weak chin, the thin lips, the weak jaws without definition, among others. Small nose humps can be treated as well.

With the Bioplasty, it is possible to achieve chin and jaw augmentation, create larger, more defined and young-looking lips, retouch the nose and remove acne scars.

The Signs of Feminine Beauty

Everyone recognizes the beauty and there is an almost universal consensus about it in globalized societies. The collective unconscious is highly influenced by the media, but it hasn't lost its biological evolutionary nature: the beauty signs are millenarian in the human race. We know what is beautiful, but we don't know how to explain the reason. Although we still cannot reach the soul, part of the beauty, we can at least know its surface. Then, studying the Western Feminine Beauty anatomically, we can find some signs that are almost always present:

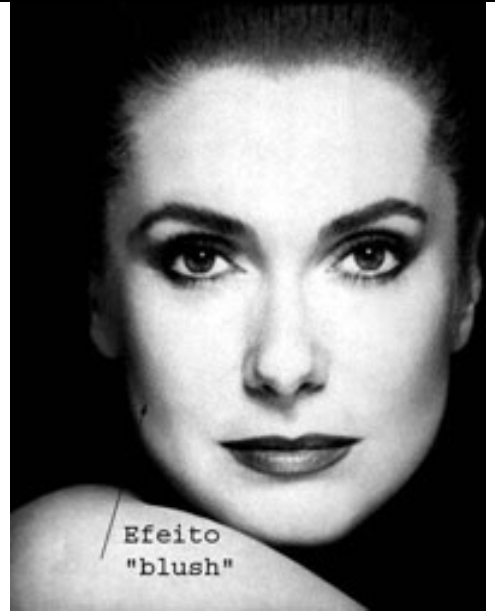
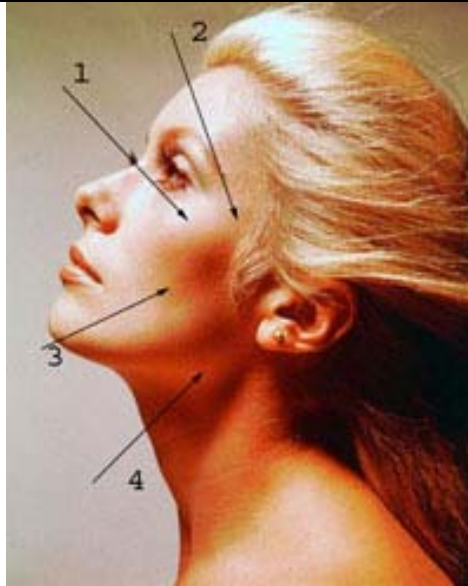
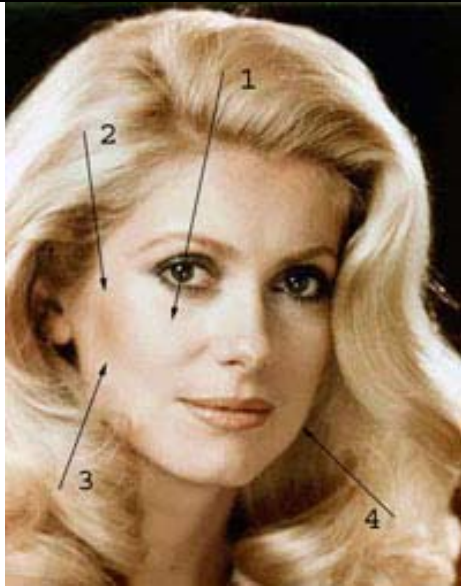
1 – The cheeks (malar area) are prominent, but with discretion.

2 - The prominent malar area is prolonged to the zygomatic area (zygomatic bone) towards the superior part of the ear. The discreetly prominent zygomatic bone narrows and finishes smoothly in the general level of the face.

3 - The "blush effect" is a depression formed by the prominences of the malar and the zygomatic bones on one side and of the jaw on the other. It is a main / important beauty sign.

4 - A well defined jaw, with certain proportion between its two parts, and the angle between them tending to be right (the jaw has two parts: the branch and the body, forming an angle at the point where they meet). The well marked jaw helps to create the "blush effect".

To exemplify these signs we will use a natural beauty, one that hasn't had our help. A beauty that was a chance in nature, a happy genetic coincidence, or as we prefer, a delicate divine creation: the French actress Catherine Dorléac, known as Catherine Deneuve, who was born in October 1943, in Paris and who's now in her sixties, ambadress of UNESCO for the preservation of the world cinematographic patrimony. A beautiful woman internally and externally.



The beauty signs in Catherine Deneuve: 1 - the well marked malar area, 2 - the zygomatic area , beginning in the malar prominence and smoothly prolonged until the superior border of the ear. 3 - the " blush effect ", a light and wide furrow in the cheek. 4 - the well marked mandibular area. Observe the line between the nose and the chin, that maintains a certain distance from the mouth, with soft proportions.

The Signs of Masculine Beauty

The masculine beauty signs are not well known. But although masculine beauty is seen with distrust by men themselves, it occupies a new position nowadays. Men of all the ages begin to seek, in a growing rhythm, what women have already accepted and conquered for a long time: the improvement of the self-esteem and better social insertion. The definition of Metro sexuality is still insufficient to determine the actual behavior revolution that has affected men in the beginning of this century, and that is still not well understood. In our clinic, we've received a growing legion of men who seek the aesthetic treatments that only now begin to be considered by the doctors in this field. We can use the same resources, but the treatments cannot be the same ones used for women. Male characteristics have to be very well established.

Also, for men, we can find these well established characteristics of facial beauty: a large jaw is masculine. Men need a more defined jaw, which gives the sense of symmetry and balance. A weak jaw can make a normal nose seem large and an already prominent nose look even larger. On the other hand, a too prominent jaw may give a too strong appearance, which is not beautiful. A more right mandibular angle is also important. Bioplasty can create or enhance these beauty lines in the face, increasing the malar area and defining the jaw, as well as creating a depression in the area of the cheek called the "blush effect". Bioplasty can work on the nose, lifting its tip or removing a dorsal nasal hump. A weak chin, like a weak jaw, can make a normal nose seem large and an already prominent nose look even larger. Bioplasty can perform a chin augmentation. But what is really important is a balanced relationship among the structures of the face, including the nose, the chin, the malar and the mandibular areas, with a discreet "blush effect".

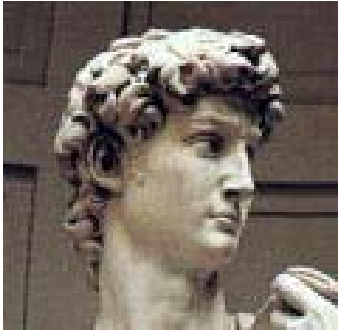
1 - A malar and a zygomatic area with very discreet prominence, not as much as in women.

2 - A well marked jaw, with certain proportion between its two parts with an angle tending to be right (the jaw has two parts: the branch and the body, forming an angle between them, at the point where they meet). The well marked jaw helps to create a discreet "blush effect".

3 - Wide and proportionate chin

4 - Proportionate and straight nose

To exemplify these signs, we will use Michelangelo's Work, David.



The Bioplasty Technique

The Injectable Product

The injectable product used in Bioplasty is the PMMA, (polymethymethacrylate microspheres) a product that is accepted biologically and that has been used in medicine since 1950. The PMMA began to be used in hip prosthesis, later in lenses placed inside the eye, surgical supporters, and more recently as aesthetic implants. The PMMA used in aesthetics is especially prepared for this purpose , with standard-sized microspheres which have the necessary properties for the aesthetic implant in the face and the body.

Each area receives certain concentrations of the product, that is available in 3 concentrations, 2%, 10% and 30%. PMMA, that is Biocompatible, can be placed close to the bone, and molded in the desired format. The desired form and volumes are previously drawn. The PMMA will adhere to the bone and adjacent tissues, and become part of them. The PMMA can also be used in the muscle, as in buttocks augmentation. It can be put in the fat tissue as well as in the skin, to treat wrinkles and furrows. In this tissue there is also a biocompatibility and the PMMA will react with the tissue, becoming part of it too. Due to the mobility of the product, that can be used in bones, muscles, fat and skin, we've chosen PMMA to be used in Bioplasty.

Blunt-tipped microcannulas that Inject the Product

The technique of Bioplasty uses blunt-tipped microcannulas, specifically designed to minimize the risks of injury to tissues, vases and nerves. All the treatments are performed through micropunctures, under the skin and near the structures of the body, without any cuts and without the need of skin sutures. The treatments are performed through a minuscule micropuncture, smaller than 0,5 mm (smaller than a pinhead_, where the blunt-tipped Microcannulas are introduced. They will transport the microspheres of PMMA to the desired place, to achieve the transformations of Bioplasty. Everything is performed under local anesthesia.

Pos - Bioplasty

The patient can go home immediately, just after the end of the procedure. No cuts or sutures are necessary. The minuscule micropunctures are covered by small pieces of hypoallergenic surgical tape, that are kept in place for 2 days. Although some transitory signs of the treatment may appear, if the patient wants, he's

allowed to return to his routine on the same day. The signs disappear in a few days. Cold compresses and a mild analgesic and an anti-inflammatory are prescribed and should be taken for a few days

Performing a Bioplasty

Bioplasty is performed at the our own clinic or in our Day Hospital, under local anesthesia, with the patient backing home in the same day.

The Technique of face and Body Bioplasty is an outpatient procedure, what means that internment is not necessary.

The whole treatment is performed under local anesthesia. No sedation is needed .

Bioplasty can even be performed in a office, but we prefer performing it in our day hospital, which is very similar to a clinic.

The “Day Hospital São Paulo LASER and Medical Center” was created by a group of doctors, of which the Naturale Clinic is part, to offer all the technical conditions of safety and of asepsis requested in the aesthetic procedures, but in a pleasant atmosphere and a with personalized and friendly attention, similar to an office.

1 - The patient comes to Naturale Clinic for a initial doctor consultation, when the doctor will evaluate the patient and to plan the procedure. If necessary, some tests will be requested.

2 - Pictures are taken and the procedure of Bioplasty is scheduled

3. The patient goes to the Day Hospital in the scheduled day and time.

4. The doctor performs pre-established demarcations on the face or on the buttocks, that are the procedure plans to guide the treatment.

5. The local anesthesia is performed.

6. Bioplasty is then executed. It takes about 40 to 60 minutes for the face and 1 hour and a half for the buttocks. Blunt-tipped microcannulas are used, which are specifically designed to minimize the risks of injury to tissues, vases and nerves. All the treatments are performed through micropuncture, under the skin and close to the structures of the body, without any cuts and without the need of sutures. Minuscule micropunctures, smaller than 0,5 mm are done, through where the blunt-tipped Microcannulas are introduced. They will transport the microspheres of PMMA to the desired place. Everything is executed under local

anesthesia. The injections are performed with the help of a manual injector especially developed for this purpose. With models for the face and for the buttocks, this injector is capable of injecting exact amounts of the product, what allows a predictable application. The demarcations guide the doctor to perform the intended alterations. The patient is totally conscious and talking with the doctor during all the procedure. Sedation is not necessary. After the treatment, there is no need of sutures, just an hypoallergenic surgical tape is put on the micropuncture and it is kept for 2 days.

7. The patient can go back home immediately after the procedure.
8. Bruising and swelling may occur and they disappear within 3 to 15 days
9. A mild analgesic and an anti-inflammatory are prescribed and should be taken for a few days
10. The patient can return to his professional activities on the same day or on the following day, although there may be some swelling and some bruising.
11. The patient will come back to the clinic for evaluation after 5 or 6 days

Bioplasty - the procedures

Improve the Beauty

The Human Beauty is a subject that has always caused deep philosophical discussions, with several opinions that can be collected since the point where we lose track of time. The modern world, where design is present in everything, removes the harshest critics from the discussions, that associate to the negative concept of vanity everything that refers the human beauty. It is as if man wanted for himself the divine power of the creation of the beauty. But the beauty is present in everything: in the nature and in the human creations - it is part of the divine incomprehensible creation of the world. Tiny man can't dare to think he is the creator; he could be just the admirer, and recognize that he has inside himself the search for the harmonic. Then, almost unconsciously, men buy the most beautiful refrigerator. But refrigerators should only freeze. Men prefer the most beautiful automobile. Automobiles should only transport. Men prefer the mobile phone with the most outstanding design, the most beautiful house, the most beautifully designed TV and computer, etc. Design is in everything and it is not a human creation. It is also in the nature, with the beauty of the animals, the flowers, and the landscapes. Then, when the Humans seek for the beauty for themselves, they just want to integrate the nature and to answer to their desire of harmony, which was not invented by them. It is not wrong to seek for good appearance; it is even very comprehensible, considering that design is present in everything. To seek the beauty is not wrong; it is not a sin; it doesn't need to be explained or justified; it is just natural .

The human beauty comes from lost concepts in the collective unconscious. But in the western world, very often influenced by the transnational media, more and more similar patterns of who is a beautiful man or a beautiful woman can be identified.

Studying the western feminine beauty anatomically we can find some signs that are almost always present:

- The cheeks (malar area) are prominent, but with discretion.
- The prominent malar area is prolonged to the zygomatic area (zygomatic bone) towards the superior part of the ear. The discreetly prominent zygomatic bone narrows and finishes smoothly in the general level of the face.
- The "blush effect", a depression formed by the prominences of the malar and the zygomatic bones on one side and of the jaw on the other.

- A well defined jaw, with certain proportion between its two parts, with the angle between them tending to be right (the jaw has two parts: the branch and the body, forming an angle between them, at the point where they meet). The well marked jaw helps to create the "blush effect " .

The masculine characteristics also begin to be established: a malar and a zygomatic area with a very discreet prominence, not as much as in women . A well marked jaw, with certain proportion between its two parts with an angle tending to be right (the jaw has two parts: the branch and the body, forming an angle between them at the point where they meet). The well marked jaw helps to create a discreet "blush effect . Wide and proportionate chin. Proportionate and straight nose

Bioplasty has started to offer a new concept in aesthetics: it can improve the beauty, imitating the nature and trying to create the harmonic lines, the signs of beauty, for those who don't have them. Bioplasty can also improve and strengthen the signs of beauty for those who already have them. Bioplasty that improves the beauty can be used by everyone: by the beautiful men and women, as well as by the not so beautiful ones and by everyone who wants to reach a better body and facial harmony.

Bioplasty can increase the malar and the zygomatic volume. It can redraw and define the jaw to create the " Blush Effect" and to retouch the nose. It can also be used to achieve lip, buttocks and calf augmentation. Bioplasty, a minimally invasive method, can help create or improve the human harmony.

Buttocks Augmentation

The shape of the buttocks is an important component of the woman's body harmony, mainly in the Brazilian aesthetic pattern. The high pattern of female body harmony includes well developed buttocks muscles.

Firm, well drawn, well muscled and well defined buttocks are formed mainly due to the glutes muscles. It is a pattern of body beauty that is quite admired, but which is very difficult to be obtained by women.

The muscular activity is an important aid to develop the buttocks. But especially for women, it is more difficult to obtain results with the muscular activity of the buttocks because of anatomical characteristics .

Women have a type of muscle insertion (the points where the muscles are inserted in the bones of the hip) with different characteristics when compared to men. Their muscles are less used in their daily activities , when they walk or go upstairs. For this reason, men developed better muscles. Then , women have problems to increase the muscle volume, even when they work out a lot.

Recently, some aids have appeared to increase the volume of the buttocks in women. Among them fat graft, silicon prosthesis and more recently, the Bioplasty.

Of course the Bioplasty treatment doesn't substitute the physical activity, that continues to be healthy and necessary to maintain the body harmony But Bioplasty means an important help.

The fat graft has been used, but it has as inconvenience the fact that it's formed by fat, which can be partially absorbed. Then, the definitive format will only be known after some time (around five months), and we never know how it will be absorbed, although it can be estimated. The actual size that the buttocks can reach is unknown. In addition, it is necessary to have areas with great amount of fat to be removed, which is not always possible. It is also a larger surgery, because it includes the liposuction to obtain the fat to be grafted later.

The silicon prosthesis for buttocks augmentation has been used a lot, with good results, but has a serious inconvenience. We cannot apply any buttock injection, because of the risk of perforating the prosthesis. People must take care and always inform when they are at a hospital or in an emergency situation. But for forgetfulness or unawareness, an injection can be applied in the buttocks, elapsing serious problems. Besides that, the presence of a prosthesis can cause other uncomfortable problems.

More recently, we've had the option of using Bioplasty, that is the favorite technique used at Naturale Clinic.

Bioplasty of Buttocks - the buttocks augmentation without surgery

A biocompatible product (accepted by the body), the PMMA, is applied in the buttocks directly inside the muscle. The product is mixed with the muscle and provokes the emergence of the patient's own conjunctive tissue. The sum of the conjunctive tissue and the biocompatible product (PMMA) that was injected will give the increase of the buttocks, with a format and volume previously determined and agreed on by the doctor and the patient, depending on the injected volume.

There are no risks in case of future injections of medicines and the result is quite close to the natural. The treatment is carried out under local anesthesia, without internment, which means the patient can return to his normal activities quickly. There are no cuts nor sutures. The procedure varies from 40 minutes to 1 and a half hour depending on the injected volume planned. Everything is performed through two micropunctures of 0,5 mm, smaller than the head of a pin, through where the microcannulas of special size drawn for the buttocks are inserted. It is just a micropuncture on each side, and once the procedure is finished, sutures are not necessary. A small curative with a hypoallergenic surgical tape is placed on the micropuncture and it is maintained for some days. The patient can return to his normal activities immediately after the end of the procedure.

Bioplasty of the buttocks is a new alternative for the improvement of the women's body harmony. The PMMA (polymethymethacrylate microspheres) is not absorbed by the organism, allowing accuracy in the final volume of the buttocks. If the patient wants a larger volume, more PMMA can be applied. That is an easy procedure, because Bioplasty is always performed under local anesthesia.

On the other hand, as the PMMA is applied directly in the muscle, it ends up being part of the muscular tissue, not impeding the practice of the physical exercise. The physical exercises will always be necessary. Bioplasty of buttocks alone, cannot offer a perfect body, but it can help a lot.



Augmentation of the Lips

The format of the lips is also a beauty sign. We cannot interfere in the size of the mouth, but we can increase the volume of the lips.

There's a very thin line between beauty and sensuality. The beauty reveals the anatomy and the sensuality reveals the spirit. If a part of the body reflects the spirit, this is the lips, strongly associated to sensuality.

The technique of Bioplasty can be used to correct the loss of definition of the lips that happens with the aging process, as well as to increase the volume for those who have very thin lips.

The technique is also useful to reduce the wrinkles around lips or to correct small asymmetries. The gingival smile (high smile), can also benefit from Bioplasty. The upper lip, the inferior lip or both can be treated.

The treatment is performed under local anesthesia, the same one used by dentists.

Small micropunctures of 0,5 mm are performed, and microcannulas are introduced to transport the PMMA. We utilize small amounts of PMMA to obtain the desired effects.

The patient can return to his activities on the same day. Swelling may occur because the lips are very sensitive to the treatments, but it lasts only some days.

The lips are authentic seduction weapons. Actresses, singers, and show business stars exhibit their lips, either natural or treated, not as part of their beauty, but mainly of their sensuality.

Correction of Chin

The weak chin it is frequently an orthodontic problem. In other cases, it is a genetic characteristic. The orthodontic problems should be corrected the classic way, that includes the treatment with orthodontic procedures and the correction of the occlusion, which is important for the health of the teeth.

But in many cases, even at the end of the orthodontic treatment, a weak chin can remain. In other cases, the weak chin is a personal characteristic.

A proportionate chin, with harmonic format is an important item of the men and women facial beauty.

Bioplasty can, with technical simplicity, increase and give the chin a new shape. The treatment is performed under local anesthesia, the same one used by the dentists. Small micropunctures of 0,5 mm are performed, through where microcannulas are introduced They will transport the PMMA. Small amounts of PMMA are used, proportional to the desired results.

The patient can return to his activities on the same day. A light swelling may occur but it will last only some days.



Correction of the Nose

Bioplasty can enhance the beauty, help in the rejuvenation process and correct imperfections. Bioplasty can be used to correct some imperfections in the nose. The tip of the nose and small humps on the nose can be treated. The treatment is performed under local anesthesia, the same one used by dentists. Small micropunctures of 0,5 mm are performed, through where microcannulas are introduced. They will transport the PMMA. Small amounts of PMMA are used, proportional to the desired results.

The patient can return to his activities on the same day. A light swelling may occur but it lasts only some days. The minuscule micropunctures are covered by a small hypoallergenic surgical tape, that is let in place for 2 days. Other pieces of hypoallergenic surgical tape help to give the new shape to the nose. They are kept for 7 days. Although some transitory signs of the treatment can appear, if the patient wants, he can return to his activities on the same day. The signs disappear in a few days. Cold compresses, a mild analgesic and an anti-inflammatory are prescribed and should be taken for a few days

Many of the imperfections that could only be corrected by surgery, can now benefit from Bioplasty.

The technique of Bioplasty, instead of removing the hump of the nose, fills out a space that goes from the projection to the glabella, giving the nose a more straight shape. It can retouch the tip of the nose. With applications in the base, it can even lift the nose discreetly.

Rejuvenation

Laxity of Facial skin

In the aging process, besides the wrinkles, folds and furrows, we find one of most difficult problems to treat in aesthetics: the laxity of the skin. The laxity can cause the falling of the cheek, the emergence of the double chin, of wrinkles, folds and furrows, and the loss of the definition of the jaw.

Classically, the two efficient treatments for the laxity of the skin are the deep peeling of phenol and the lifting. The deep peeling causes a reaction in the skin, removing the superficial layers with the wrinkles and more superficial furrows. It provokes a retraction of the skin and the formation of collagen. The lifting treats the flaccid musculature and it removes the skin excess. Both treatments are efficient. However, they need sedation or anesthesia and there is a more difficult pos- peeling or pos-surgical period. Bioplasty is a new alternative.

What Bioplasty does is to treat and to recover the lost volumes of the face. The malar area and the jaw are treated and their volume is increased, giving them a new outline. If it is necessary, the chin and tip of the nose can also be treated. Furrows are lessened. With the new volume, the lines can be harmonized and the flaccid skin changes to a new situation, improving the aspect caused by the aging process.

Bioplasty for rejuvenation is compatible with the other treatments. It could be performed after deep peeling or lifting. Just the same, it doesn't impede that in the future, if it's necessary, a lifting or a deep peeling is performed. It can be used along with other measures, such as Botox and cosmiatric creams .

The facial outline is given mainly by the bone of the jaw. When this bone has certain angles and it is well marked, it is a decisive sign of beauty. In the illustrations below, we see the actress Michelle Pfeiffer's face. Looking at it, we can clearly understand the role of the marked jaw as a beauty sign. We also see another picture of a middle aged woman who lost the jaw definition.



The actress Michelle Pfeiffer shows one of her signs of beauty: the well marked jaw.



A beautiful middle aged woman; we can see the lost of the definition of the jaw, as well as folds, wrinkles, furrows and skin laxity.

Bioplasty for the aging process is a totally different concept. Instead of cutting and pulling, Bioplasty changes the volumes and it acts stretching the skin, producing not only a better facial outline, but also a better aspect in cases of laxity. Likewise, the furrows are decreased by treatment itself and also by the augmentation of volumes. The outline of the jaw is redefined, the wrinkles decreased, and the double chin reduced.

Folds, Furrows and Wrinkles

Bioplasty is a derived technique of the filling . It is a great evolution. While the filling is only used under the skin, Bioplasty is also applied in the deepest tissues, as in the muscles of the face and bone surface. The injected product exists in several concentrations. The most concentrated, 30%, for the deepest tissues; 10% for the fat tissue; and 2% for the skin. Then, when Bioplasty is performed for rejuvenation, the wrinkles can be treated at the same time.

The nasolabial folds are the deep folds which run from the side of the nose to the corner of the mouth . This is one of the first signs of aging , although younger people with prominent fatty cheek pads may also have important nasolabial folds. It is one of the most difficult age signs to be treated . Bioplasty can fill out these folds , but with the treatment of the Malar area, a certain stretching of the skin will occur. That will contribute to the improvement of the aspect of laxity. The infra labial folds and the wrinkles around the lips can be treated equally.

The other treatments, as botulinum toxine and cosmiatric creams, besides the LASER photorejuvenation and the superficial and medium peelings, can be applied along with the Bioplasty. Bioplasty acts in the depth, and the other procedures in the surface of the skin, maximizing results.

The recovery of the deep volumes of the face is a new concept. The skin is stretched not because it is cut or puled , but because the deep tissues under the skin start to have a larger volume. Those volumes are created in a desired way, following the signs of beauty. With this technique, it is possible to obtain the rejuvenation as well as a better facial harmony.

Hands

The hands also suffer with the aging process due to the loss of conjunctive tissue. As a result, the skin is more flaccid and with age spots. The back of the hand reveals the tendons and the veins, giving them a senile aspect. Bioplasty can recover these volumes and disguise veins and tendons.

The treatment is simple and performed under local anesthesia. Through small micropunctures on the back of the hand, the microcannulas, which are especially designed for this purpose, are introduced. The microcannulas will transport the PMMA (or polymethymethacrylate microspheres) to recover the volume of the back of the hand. It is not necessary perform cuts nor sutures. The patient can return to his activities immediately. A glove has to be worn for some days and heavy manual activities have to be avoided.

With the associated treatment for the improvement of the quality of the skin, using peelings, cosmiatry and LASER / photorejuvenation, it is possible to rejuvenate the hands, recovering volumes, disguising veins and tendons, removing stains and giving the skin a healthier aspect.

Facial Outline

The facial outline is given mainly by the bone of the jaw. When this bone has certain angles and it is well marked, it is a decisive sign of beauty. In the illustrations below of the actress Michelle Pfeiffer's face, we can clearly understand the role of the marked jaw as a beauty sign. We also see another picture of a middle-aged woman who lost the definition of the jaw.

Michelangelo's David, an example of masculine beauty, shows a well developed and well marked jaw, with harmonious angles.

Michelle Pfeiffer, a feminine beauty, has a well marked jaw, and a harmonious, square angle. This characteristic is important in her beauty.

The jaw can be not very well marked due to personal characteristics, orthodontic problems or because of the aging process.

In the aging process, we can see the lost of the definition of the jaw, as well as folds, wrinkles, furrows and skin laxity.

Bioplasty is capable of modifying the outline of the jaw, inside of certain limits, and improving the facial harmony. We can use three types and Bioplasty: the one that improves the beauty, the one that corrects imperfections or the one for the aging process, better defining the jaw outline .

Patients who have already performed orthodontic treatments but want to improve their profile acting on the soft parts of the face, can use Bioplasty to enhance their facial outline.

Even patients who don't have these kinds of imperfections can improve their appearance using Bioplasty. That can improve their beauty, acting on the beauty signs.

Acne Scars

Nowadays there are really efficient treatments for acne problems. However, a complication of the acne, the scars and depressions, still represent a difficult problem, not easily solved. The technique of subcision associated to Bioplasty can improve the appearance of the scars and depressions caused by acne. Subcision is a technique that uses a micro needle, that separates the skin with acne scar from the tissue that is below it. Immediately, the space under the skin is filled out with small amounts of PMMA. The procedure is performed under local anesthesia, and the patient can return to his activities immediately.

Advantages of the new method of Bioplasty

Due to the great results of the treatment, its low risks and the simplicity of its execution, the new technique of Bioplasty - the plastic surgery without cuts - has been widely accepted by both doctors and patients.

Bioplasty was created according to the trend of minimally invasive methods that has been observed in all areas of the medicine. Bioplasty offers good results, but with low risks and without great execution difficulties.

The new technique has a wide variety of applications, divided in 3 fields:

Bioplasty that improves the beauty, Bioplasty that rejuvenates and Bioplasty that corrects

Associated Treatments

Bioplasty can be used complementarily with other methods. That means the phenol peelings, LASERS / photorejuvenation , Botox, and the cosmiatric creams can be used and there is not incompatibility among them. The doctor who has all of the methods on hand can choose the best ones for the patient. Bioplasty can enhance the beauty, rejuvenate and correct. Botox, LASERS / photorejuvenation and peelings will treat the most superficial skin. The creams will treat the photoaging and photomelanosis and will prevent the aging, besides restoring the skin. Surgeries can also be used for those cases when Bioplasty and the minimally invasive methods do not apply. Surgeries could complete or be completed by Bioplasty, when it is necessary.

Bioplasty can also be used after lifting procedures. After the lifting, the aging process continues. Furthermore, it is not desirable to repeat this type of surgeries frequently because the natural aspect of the face can get lost. Then, Bioplasty can be used to avoid frequent liftings. On the other hand, when the lifting has already been performed, a little loss of the deep tissues and a thin aspect of the face are observed. Bioplasty can help restore the lost volumes.

The History of Bioplasty

Bioplasty had its beginning in the United States, in the 90's, with the American surgeon Dr. Robert Ersek. He described the use of the product Bioplastique, a biocompatible polymeric, as well as the use of blunt-tipped stems for the injections. Dr. Ersek described the ideal characteristics of the materials that can be used in Bioplasty.

Bioplasty had great development in Brazil, with the surgeon Dr. Almir Nácul. He's taken the technique to its current state, adapting the new product (PMMA) that fills out the ideal characteristics established by Ersek. He's developed microcannulas and appropriate materials for each use, besides the Nácul's cannula, utilized in the local anesthesia of the face and of the buttocks. He's also enlarged Bioplasty applications, developing the experience that made this method available.

Naturale Clinic, the pioneer in the use of Botox in the hiper-hidrose treatment, in the surgery of varicose veins with LASER, in Crioescleoterapy, and in several other important techniques, continues in the vanguard and already offers Bioplasty in its two 2 clinics.

Miguel Francischelli Neto MD, PhD, Head of the Naturale Clinic, already performs the new technique of Bioplasty with polymethymethacrylate microspheres: PMMA.

Soft Tissue Implant

The Ideal Soft Tissue Implant

Bio-Inert

Permanent

Particle size large enough to prevent migration after implantation

particle size small enough to allow implantation by minimally invasive blunt cannula procedure

not resulting in "storage disease"

light in color

moldable following implantation, but stable after remolding

Bioplasty with PMMA

Material	Product (vendor)	Primary Components
PMMA	Biomedical	Polymethylmethacrylate Microspheres

Other Soft Tissue Implant

Material	Product (vendor)	Primary Components
AlloDerm	LifeCell Corp	Decellularized Human Dermal Tissue
Autologen	Collagenesis	Autologous Human Dermal Collagen
Cymetra	LifeCell Corp	Micronized AlloDerm
Dermalogen	Collagenesis	Allogenuous Human Dermal Tissue
Fibrel	Mentor Corp	Fibrin Gel
Hylaform	Biomatrix	Hyaluronic Acid
Restylane	Q-Med	Hyaluronic Acid Gel
Tisseel	Baxter	Fibrin Gel
Zyderm I	Collagen Aesthetics	Bovine Dermal Collagen (35 mg/ml)
Zyderm II	Collagen Aesthetics	Bovine Dermal Collagen (65 mg/ml)
Zyplast	Collagen Aesthetics	Bovine Dermal Collagen (65 mg/ml) with Glutaraldehyde
Artecoll	Rofil Medical Inc	Polymethylmethacrylate Microspheres
Bioplastique	Bioplasty, Inc	Polydimethylsiloxane
Goretex	W.L. Gore & Associates	PTFE
Marlex	Davol , Inc	Porous/mesh-form Polyethylene
Softform	Collagen Aesthetics	PTFE
DMS	Dow Corning	PolimetilsiloxanePolydimethylsiloxane
Metacrill	Nutricell Laboratory	Polymethylmethacrylate Microspheres

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