Disclaimer

This movie is an educational resource only and should not be used to make a decision on Rhinoplasty. All decisions about Rhinoplasty must be made in conjunction with Your Surgeon or a licensed healthcare provider.
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Anatomy of the Nose (External Nasal Anatomy)

- Glabellar Angle
- Nasal Bone
- Upper Lateral Cartilage
- Alar Cartilage
- Columella
- Nostril

Glabellar Angle
(Refer fig. 2)

Nasal Bone
(Refer fig. 3)

Upper Lateral Cartilage
(Refer fig. 4)
Unit 1: Introduction

Alar Cartilage
(Refer fig. 5)

Columella
(Refer fig. 6)

Nostril
(Refer fig. 7)

- Nasal Bone
- Upper Lateral Cartilage
- Alar Cartilage
- Columella
- Nostril
Nasal Bone
(Refer fig. 8)

Upper Lateral Cartilage
(Refer fig. 9)

Alar Cartilage
(Refer fig. 10)

Columella
(Refer fig. 11)
Nostril
(Refer fig. 12)

Anatomy of the Nose (Internal Nasal Anatomy)
(Refer fig. 13)
- SEPTUM can be twisted blocking on or both airways
- TURBINATES can enlarge blocking airways
- Nostril

SEPTUM can be twisted blocking on or both airways
(Refer fig. 14)
TURBINATES can enlarge blocking airways

(Refer fig. 15)

NOSTRIL

(Refer fig. 16)
Who is Suitable?

If you have an understandable, but not excessive concern about visible features of your nose, you will probably benefit from rhinoplasty. It is important for Your surgeon to relate your undesirable feature to some underlying anatomy that can be surgically altered to achieve the desired result.

Many surgeons prefer not to operate on teenagers until their growth spurt is complete - around 14 or 15 for girls and a little later for boys. It is important to consider a teenager’s social and emotional adjustment, and to make sure it is what they themselves, and not their parents, really want.

(Refer fig. 17)

Preoperative Evaluation

During your first visit, your expectations and concerns will be sought and documented. Your surgeon will analyse what you don’t like about the shape of your nose and what alterations appear to be desirable.

The inside of your nose will be examined and any obstructions to your airway noted. In some cases it may be necessary to get the opinion of an Ear, Nose and Throat Surgeon about any potential or existing problems inside your nose. If there are significant problems with nasal function, Your surgeon may recommend a combined operation, with an E.N.T. surgeon attending to the internal problems whilst Your surgeon reshapes the external features of your nose.

Your general health and medical history will be noted.

Photographs will be taken and at a second visit, Your surgeon will discuss these with you. He will explain what is the best shaped nose for your face and sketch this. In our practice, we use computer-assisted imaging to help predict a new shape for your nose.

You must accept that computer imaging provides a basis for discussion and is not a guarantee of the surgical result. However the goal for the final shape of your nose is the combined decision of yourself and Your surgeon.

When you and Your surgeon are happy with a shape that is surgically feasible, plans for surgery can be made.
Shape can be adjusted using computer imaging. This exercise is only a guide to your new nasal shape and is not a guarantee of a result. It does, however, provide vital assistance in arriving at a goal of surgery.

Nasal shape can be adjusted by narrowing the nasal bones and adjusting the cartilages of the nasal tip.

Dorsal hump
(Refer fig. 18)

Lengthy nose
(Refer fig. 19)

Rounded tip
(Refer fig. 20)
Deviated septum  
(Refer fig. 21)

Alar base  
(Refer fig. 22)

Osteotomy  
(Refer fig. 23)
The Operation

The operation is performed either entirely through small incisions placed just inside the nostril (the so-called "closed" rhinoplasty) or by adding an incision across the vertical strip of skin between the nostrils (columella) to get a better view of the underlying structures. This is the "open technique".

Each approach has its benefits and indications. Your surgeon will explain these to you when advising which approach is more suitable for your particular problem. There are several steps to the operation.

(Refer fig. 24 to 41)
The nasal bridgeline is lowered. This may involve bone or cartilage or both structures.

Upper lateral cartilages and septum are 'shaved' to reduce the height of the bridge and modify the profile.

Length of nose can be reduced by resecting a portion of the end of the septum and correction of the upper lateral cartilage.

(Refer fig. 24 to 41)
Rounded appearance of tip can be reduced by resection of portion of the alar cartilage.

Septum may have to be trimmed to tilt and aid in shortening of the nose. If the septum is twisted, this will need to be straightened by a procedure known as SMR.

(Refer fig. 24 to 41)
Removal of wedge by excision of skin to narrow nostrils.

Narrowed nose and approximate position of suture lines usually leads to imperceptible scar.

Narrowing the bridge of the nose by cutting the nasal bone free from the cheek and gently pushing the bones together (so called "Infracture").

When the operation is complete, a small splint is applied to help maintain the new shape and a small pad is taped under the nostrils to collect any secretions. This external splint is kept in place for up to fourteen days.

(Refer fig. 24 to 41)
A tubular silicone splint is also inserted in each nostril to maintain the internal shape and assist breathing. This internal splint is maintained for up to seven days.

Occasionally, grafts of cartilage from the septum, the ear or even the ribs may be used to overcome irregularities or highlight the bridge line or nasal tip.

The shape of the modified underlying skeleton of the nose determines the shape of the skin which shrinks to adhere to the altered nasal structure.

The overall appearance can be assessed after correction of all the above bony and cartilage parts of the nose.

(Refer fig. 24 to 41)

Post Operative Course

After the operation, you will wake up with a splint on the outside of your nose which you must wear for 7-14 days. This splint is made of an adhesive-backed plastic which melts in hot water. When applied to your nose and held in place whilst it cools, it adapts to the shape of your nose and is held there by its adhesive backing. There will also be a splint inside your nose.

This is a tubular splint of silastic, a smooth soft rubber. Because of its construction, it is comfortable to retain, and being tubular-allows you to breathe for the five to seven days it sits inside your nose.

(Refer fig. 42)
If the tube becomes blocked with blood or mucus, you will not be able to breathe. Therefore, Your surgeon will insert a small pack into the tube at the end of the operation.

(Refer fig. 42)

When you are fully awake and able to sniff in to keep the tube clear, the nurse will remove the pack and leave you with a clean open tube. You should cover each nostril in turn and inhale once an hour to maintain an open tube. If the tube does block, it can be cleaned by gently passing a pipe cleaner or similar implement along the tube as demonstrated by our staff. By keeping the tubes clear, your early post-operative experience will be ever so much more pleasant.

Black Eyes: About half the patients wake up with bruising around the eyes. This is an expectant by-product of nicking a small blood vessel (of which there are many) at the time of infracture. Black eyes do not indicate that you have a bleeding problem or that Your surgeon had to use excessive force to perform the operation. The surprising feature is that only half the patients develop black eyes. But, as we cannot predict which half, we promise black eyes to all our patients so that no-one will be disappointed after the operation.

Rhinoplasty is rarely a painful procedure, but you may have a dull headache and discomfort in your nose. You will probably need only Panadol or Digesic for a day or two. Antibiotics sometimes are given intravenously during the operation and may be continued orally for a few days afterwards if Your surgeon feels there is some potentially infective problem to be concerned about.

If the nasal bones have been moved, there will be bruising and swelling around the eyes and cheeks for a week or two. Cold compresses will help reduce this swelling. You will feel a lot better than you will look. It is best to stay in bed for the first day with your head elevated. There may be a little bleeding from the nostrils for the first few days following surgery. Do not blow your nose for a week or so while the tissues are healing. Your internal nasal splint will be removed after 5-7 days. The external splint and any stitches are usually removed at 7-14 days. Your surgeon’s staff will instruct you in the proper use of camouflage make-up.

You will be up and about in a day or so. Most rhinoplasty patients return to school or work in a week or two depending on their activities and job.

Please avoid strenuous activity (jogging, swimming, bending, sexual relations) or any activity that increases your blood pressure, for three weeks. Avoid excess alcohol for three weeks. Keep out of the hot sun and try not to bump your nose for eight weeks. Please do not sleep on your face during this time. Tape your glasses up off your nose and onto your forehead for one month.
Massage of the nose can hasten the resolution of the swelling. You will be shown where to massage, if this is desirable, after the splint is removed.

(Refer fig. 43)

You will be seen post operatively as often as necessary until all swelling subsides. Although most of the swelling is gone by two weeks and the general result is apparent at that time, it may take up to six months for complete resolution to occur. This is the normal healing process and will not be noticeable to your friends and relations. You will not be fully able to assess the final result until then.

Do not be surprised if you feel a bit down after the operation and get some negative reactions from family and friends. They may say they do not see much change in your nose or they may be resentful that you have changed a family or ethnic trait. This is all quite natural and should not be a cause of concern to you. Try to keep in mind why you had the surgery in the first place. If your goals have been met, the surgery is a success.

Possible Complications

Complications are quite uncommon in rhinoplasty surgery, but unexpected events can follow any operation. Your surgeon feels that you should be aware of things that may take place so that your decision to proceed with this operation is taken with all relevant information available to you.

Bleeding: There is always some bleeding immediately after surgery. This is expected and will stop in some hours. It is the result of making incisions in the skin to perform the operation. In some cases, unexpected bleeding may occur in the first 48 hours or from the 10th to 14th day. The early bleeding is called "reactionary", and occurs when the drugs your surgeon uses to constrict the blood vessels of the nose wear off.

The late bleeding (so-called "secondary") is the result of a clot inside the nose becoming infected and causing an underlying blood vessel to bleed once more. This bleeding can be controlled by packing the nose. Sometimes, readmission to hospital may be necessary. Avoid aspirin and aspirin-containing products during this time. Also any activity which raises the blood pressure should be discouraged.
Infection: This occurs in less than one percent of cases and can be treated with antibiotics. You may notice unusual redness and swelling. Again notify Your surgeon if you feel any concerns in this regard.

Eye Injury: This is avoided by careful protection of the eye during surgery. The nasal bone fractures are sited well away from the eyes' drainage system and damage to the tear drainage apparatus is rare.

Intracranial Complications: Infection in the cranial cavity (e.g. meningitis) is a recognised complication of nasal injuries. It results from a communication between the nose and the coverings of the brain. As rhinoplasty is a form of controlled nasal injury, meningitis must be recognised as a potential problem. It is, however, very rare. Any severe headache, stiffness of the neck or intolerance to bright light must be reported to Your surgeon as a matter of urgency.

Skin Problems: Usually these are minor and transient. Most common are pustules with or without allergic dermatitis to the tape that is applied to the nose beneath the splint. If the tape is too tight it may cause skin excoriation. In cases of excessive pain, the tape and plaster are always removed and the skin checked for pressure problems or infections.

Late Complications

Nasal Obstruction: There is usually a temporary reduction in the nasal airway due to post-operative swelling of the nasal lining. This subsides in some weeks to months. Allergic conditions, enlargement of a turbinate or a crooked septum may only begin to cause symptoms after a rhinoplasty and then require treatment. If there is an indication of such a problem before your operation, Your surgeon will order special investigations and may refer you to an E.N.T. surgeon for assessment. A joint procedure with both surgeons operating on you at the same time may then be recommended. However, these problems may not lead to symptoms before your rhinoplasty. If they become manifest after surgery, they may then be dealt with in an appropriate manner.

Retracted or Hanging Columella: A retracted or hanging columella may need adjustment. This is a simple procedure which will usually be performed in the Day Surgery Centre.

Decreased Sense of Smell: Decreased sense of smell is a theoretical possibility. You need to be aware of this as a potential source of irritation.

Dark Circles Under the Eyes: Dark circles under the eyes can occasionally persist for many months. This is usually more common in olive-skinned people and is the result of the retention of the pigments of the blood in the skin around the eyes when the bruise resolves. Although this can be irritating to you cosmetically, there are creams which Your surgeon can prescribe which can help bleach the skin. You may benefit from the use of camouflage makeup whilst this darkness improves as it always will over time.
Disclaimer

Although every effort is made to educate you on RHINOPLASTY and take control, there will be specific information that will not be discussed. Talk to Your Doctor or health care provider about any concerns you have about RHINOPLASTY.

You must not proceed until you are confident that you understand this procedure, particularly, the complications.
YOUR SURGERY DATE

READ YOUR BOOK AND MATERIAL

VIEW YOUR VIDEO / CD / DVD / WEBSITE

PRE - HABILITATION

ARRANGE FOR BLOOD

MEDICAL CHECK UP

ADVANCE MEDICAL DIRECTIVE

PRE - ADMISSION TESTING

FAMILY SUPPORT REVIEW

Physician's Name: ____________

Patient's Name: ____________

Physician's Signature: ____________

Patient's Signature: ____________

Date: ____________

Date: ____________