

The Nose— Revision & Reconstruction

A Manual and Casebook

Hans Behrbohm

With contributions by

Johanna Brehm

Walter Briedigkeit

Jacqueline Eichhorn-Sens

Holger Gassner

Wolfgang Gubisch

Thomas Hildebrandt

Joachim Quetz

Forewords by

M. Eugene Tardy

Claus Walter



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Hans Behrbohm, MD, PhD

Professor

Department of Otorhinolaryngology

and Facial Plastic Surgery

Park-Klinik Weissensee

Academic Teaching Hospital of the Charité University Hospital

Berlin, Germany

With contributions by

Johanna Brehm, MD, PhD

Walter Briedigkeit, MD, PhD†

Jacqueline Eichhorn-Sens, MD, PhD

Holger Gassner, MD, PhD, FACS

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Claus Walter, MD, PhD

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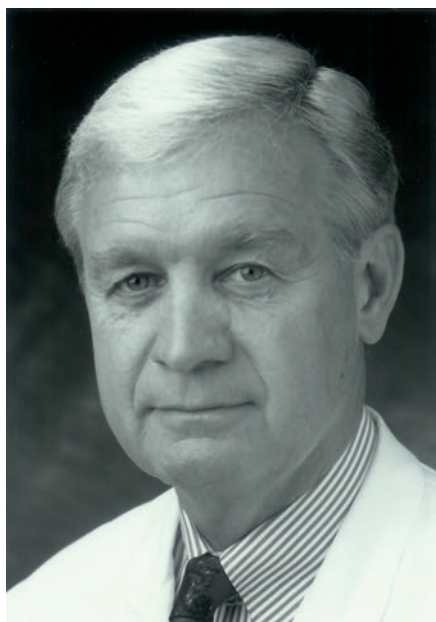
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Foreword



Every primary rhinoplasty is an adventure. Revision rhinoplasty, in contrast, constitutes an exploration into an unknown anatomic landscape, scarred and significantly altered by previous surgical procedures. Multiple pathways exist in the quest to correct previously altered anatomic components. As difficult as this surgical effort often is, more difficult still is the struggle to satisfy patients quite naturally unfulfilled by earlier operations on their nose.

Before undertaking revision rhinoplasty, four fundamental questions must be posed:

1. Can definitive improvement be reasonably predicted?
2. Will the potential improvements realized result in patient satisfaction?
3. Will the approach and techniques employed result in improvement without great risk of further adverse healing outcomes?
4. Is the surgeon sufficiently experienced and confident of an improved outcome?

Absolutely essential to the undertaking of a rhinoplasty revision is painstaking and detailed analysis of the disturbed

anatomy. Tissues scarred and rendered less vascular by previous surgery, devastating natural tissue dissection planes, lend themselves less well to preoperative analysis. A judgment must be made about whether the abnormalities encountered may be safely repaired. It is axiomatic that *functional* nasal problems must be initially addressed.

At the outset, a fundamental and critical decision must be made about whether it may be more appropriate and safe to engage in a major tissue dissection and exploration created by the *external (open) approach*, or whether more limited incisions and dissection available through *endonasal approaches* place the damaged tissues—and therefore the patient surgical outcome—at less risk.

In this beautifully illustrated and written volume designed to highlight patient-centered clinical problems, Professor Behrbohm reveals the surgical principles underlying common and unique cases encountered in a busy clinical practice. Following an erudite analysis and evaluation of each problem, the corrective surgical steps chosen are illustrated liberally with artful renderings supplemented by clear, step-wise surgical maneuvers. Importantly, surgical outcomes are revealed with follow-up patient images. From the outset, thorough and cogent chapters document the importance and techniques of nasal analysis, functional evaluation, surgical planning, and the utilization of a wide variety of grafts useful in creating nasal support and form. Unlike most texts devoted to revision rhinoplasty, the author discusses his contemporary approaches to a wide variety of nasal injuries, reconstructive techniques following soft tissue loss in various regions of the nose, and management of nasal tissue loss and deformities resulting from systemic diseases.

Nasal function does not suffer from exclusion in this exposition, since preservation or restoration of the normal functions of the nose is emphasized throughout the volume. Newer endoscopic techniques, which aid in functional restoration and surgical dissection, add much to the teaching value of the book.

In summary, all serious rhinoplasty surgeons or students of the art will benefit enormously from adding this sophisticated textbook to their medical library.

M. Eugene Tardy, MD, FACS
Emeritus Professor
University of Illinois Medical Center
Chicago, Illinois, USA

Foreword



It is an honor for me to have been asked by Professor Behrbohm and his co-authors to introduce their new book on revision rhinoplasty.

The topic of the book is revision rhinoplasties, including all facets of surgery of the nose: aesthetics, functional, and reconstructive surgery of the nose. A special part of this interesting book is reserved at length to discuss secondary corrections of the nose and nasal septum.

The nose is a very difficult part of the face on which to operate because of the anatomy and physiology of the nose and possible allergies influencing the nasal mucosa. Furthermore, the nose contributes a great deal to the harmony of the face. Consequently, its configuration is responsible for psychological disturbances for patients.

In order to perform proper surgical interventions, the surgeon benefits from a three-dimensional view for better judging the components of the face in relation to the nose.

All of these criteria find a synthesis in the different chapters of the book, which are of an excellent quality. In spite of the numerous publications on rhinoplasties since 1900, Professor Behrbohm and his co-authors have published a most interesting compendium of a book dealing with all phases of surgery containing first-quality artist's drawings, beautiful patient photography of the nose during the operation, and excellent written explanations of surgical techniques for or during the surgery.

Considering the importance of the nose in relation to the face, the authors have divided their new book into different sections from reference points in aesthetic facial surgery to pre- and post-operative functional examinations to surgery for nasal defects after trauma and tissue loss.

The book is divided into different chapters, first dealing with aesthetic, functional, and revision surgery and trauma and defect surgery of the nose, and malformations and profile corrections in conjunction with rhinoplasty. A brief discussion and explanation of how to use instruments during the nasal surgery is helpful and unique in the literature. A different chapter of this extraordinary book deals especially with rhinoplasties to require secondary revisions including septal surgery.

As in all the other parts in the book we find here also very well represented figure drawings, photographs, and text to add special knowledge to be able to solve these more complicated cases. The combination of options so well presented is most helpful.

The multitude of hints on how to use different techniques, including grafts, demonstrated in drawings and photographs of different surgical approaches, and different options and combinations of uniquely shown techniques help bring even the worst cases back to normal. The surgeon will find in this book a wide variety of cases seldom presented so extensively.

In my opinion, such a wonderful combination is rarely seen. Due to its perfection, this book will find a special place in the world literature on rhinoplasties and many readers.

Claus Walter, MD, PhD
Emeritus Professor
St. Gallen, Switzerland

Preface

Udo Lindenberg (1946) is a well-known German musician, poet, and painter. After releasing his first LP with English lyrics in 1971, he revolutionized the German language of that time and introduced it into rock music. His talents range from the best German lyrics and most sensitive ballads to the hardest rock 'n' roll. The artist has always been politically outspoken, whether actively working for the fall of the Berlin Wall or launching a "Rock Initiative" against right-wing violence in 2000. I began listening to his music as a young student in the early 1970s, when a schoolmate brought some of Udo's recordings, including the song *Hoch im Norden*, and played them in our shared apartment. Forty years later, it is my wish to have a pictorial metaphor for the title of my book from the artist who had written the soundtrack of my student years. I am grateful to Udo for making my wish come true.

The didactic goal of this book is to confront the reader with various problem situations in patients. Revisions are demonstrated in a range of common and rare presentations in patients

who have had previous functional, aesthetic or reconstructive surgery, trauma, tumor resections, or the reconstruction of nasal defects.

Readers are challenged to explore the particulars of each case and consider which solution they would have chosen. The procedure that was actually implemented is then revealed and discussed. The book proceeds systematically from the general to the specific and from the simpler to the more complex, with emphasis on a concise presentation. The applied techniques are presented in easy-to-follow steps. The authors discussed and envisioned the general layout of a "cookbook." The express goal of this book is to steer clear of all schools and current trends. Thus, it covers the gamut of closed, open, and endoscopic approaches and all graft and suture techniques, ranging to complex reconstructions with free tissue transfers. The full armamentarium of rhinoplastic and facial plastic surgical techniques is employed. For the repertoire of the pianist that Udo Lindenberg painted for us, this means "using all the keys." That is precisely our intention.



The artist and the author during an exchange of ideas in May 2014.



"... use all piano keys!" by Udo Lindenberg. Original acrylle on canvas (40 x 50 cm)

Contributors

Hans Behrbohm, MD, PhD

Professor
Department of Otorhinolaryngology
and Facial Plastic Surgery
Park-Klinik Weissensee
Academic Teaching Hospital of the
Charité University Hospital
and
Institute of Medical Development and
Further Education Berlin e.V.
Berlin, Germany

Johanna Brehm, MD, PhD

Department of Otorhinolaryngology
and Facial Plastic Surgery
Park-Klinik Weissensee
Academic Teaching Hospital of the
Charité University Hospital
Berlin, Germany

Walter Briedigkeit, MD, PhD†

Emeritus Professor
Department of Pediatric Cardiology
Charité University Hospital
Berlin, Germany

Jacqueline Eichhorn-Sens, MD, PhD

Plastic and Aesthetic Surgeon
Berlin, Germany

Holger Gassner, MD, PhD, FACS

Clinical Professor
Department of Facial Plastic Surgery (ABFPRS)
University Hospital Regensburg
Regensburg, Germany

Wolfgang Gubisch, MD, PhD

Professor and Director
Department of Facial Plastic Surgery
Marienhospital Stuttgart
Stuttgart, Germany

Thomas Hildebrandt, MD, PhD

Limmatklinik AG Zurich
Zurich, Switzerland

Joachim Quetz, MD, PhD

Department of Otorhinolaryngology,
Head and Neck Surgery
University Clinic Schleswig-Holstein,
Campus Kiel
Kiel, Germany

Section I

1

Revision Rhinoplasty—An Introduction

The grand aim of all science is to cover the greatest number of empirical facts by logical deduction from the smallest number of hypotheses or axioms.

—Albert Einstein, *Life magazine*, January 1950

1.1 Revision Rhinoplasty: Why a Separate Topic?

Sooner or later, every surgeon who practices functional and aesthetic nasal surgery must face the issue of revision surgery. Surgeons should be concerned first and foremost with their own revisions. Often they are not dealing with a major disaster but with “minor complaints,” which are just as challenging. The more subtle the problem, the greater the importance that the patient attaches to his or her physical appearance. This blurs the distinction between “mild” and “serious” revisions. Every nose is “serious” because rhinoplasty is an all-or-nothing operation. The most important factor in judging its success is the subjective satisfaction of the patient.¹ It is not unusual for the patient and surgeon to disagree in this respect. Everyone wants an optimum result and everyone has an opinion. But what is a realistic expectation when all factors are taken into account? The ability to predict a realistic outcome of revision rhinoplasty and communicate it to the patient beforehand is an important prerequisite for achieving patient satisfaction. Whether and when a surgeon performs a revision or refers it elsewhere will depend on his or her experience and success rates.

Is there really a need for a book on revision rhinoplasty? Do primary rhinoplasties differ from secondary and tertiary operations? We believe the answer is yes! There are psychological, biological, and certainly technical aspects that distinguish revisions from primary operations. Because the expectations of revision

candidates were not met in the previous operation, all hopes are centered on the revision procedure and on the surgeon, who must decide whether, when, and by whom the revision should be done based on a precise morphological and psychological evaluation.

1.2 The Myth of Michael Jackson’s Nose

The most famous rhinoplasty patient of all time is the “King of Pop,” Michael Jackson. He never personally acknowledged having facial and nasal surgery, and we shall not offer analysis or commentary on that point. But the fact remains that his name comes up in almost every consultation visit with a rhinosurgeon; he is “always there.” Michael Jackson underwent extreme changes during the course of his life. The dark-skinned youth with an “Afro” became progressively lighter-skinned, his nose more slender. The human being morphed into an art figure. Was it a quest for his personal ideal of beauty? Or did he simply no longer want to look like his father, who often teased the young Michael for having a “wide nose.”² Perhaps we will never know why this transformation took place. It is certain that Michael Jackson had multiple surgeries and entered a virtual Neverland between all ethnic and aesthetic norms, in the process becoming as unmistakable as his music. **Fig. 1.1a–f** illustrates the phenotypic changes that marked different stages in the life of Michael Jackson.



Fig. 1.1 (a–f) Portraits of Michael Jackson through the years. (Continued on next page)

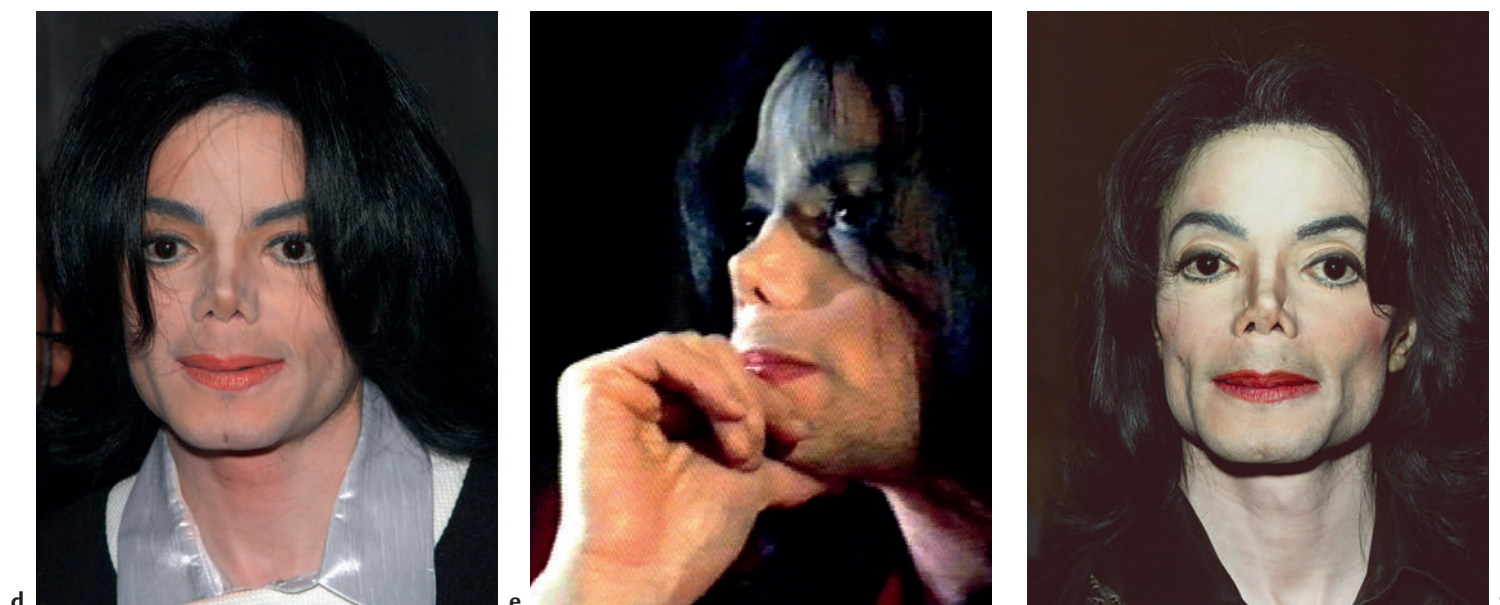


Fig. 1.1 (Continued) (a–f) Portraits of Michael Jackson through the years.

1.3 Special Problems of Revision Rhinoplasty

Fundamental differences exist between a primary rhinoplasty and a revision. While the surgeon in a primary septorhinoplasty seeks to locate the “surgical plane” that will afford elegant access with minimal bleeding, this plane is not available in revision surgery because it has been obliterated by scarring (**Fig. 1.2**).

The ideal surgical plane for septal surgery is located between the mucoperichondrium and cartilage of the anterior septum, while the ideal plane for surgery of the nasal dorsum is located below the superficial musculoaponeurotic system (SMAS) of the facial muscles and the perichondrium of the upper lateral cartilage. In revision rhinoplasties these planes are either obliterated or difficult to define. The surgeon is always faced with anatomic changes and a loss of elasticity or stability in cartilage that has been weakened by incisions or excisions. Circulation is usually poorer than in primary rhinoplasties because of scarring, and the soft tissues covering the nose have usually not “forgotten” the trauma of previous surgery.³ As a result, revision surgery

always carries an increased risk for both the patient and surgeon, despite all available options and possibilities.⁴ Access requires a sharper dissection technique. Bleeding tends to be heavier and may obscure visibility. The blood flow to scar tissue is relatively poor, areas of soft-tissue elevation may show delayed or asymmetric healing, and repeated undermining of the soft-tissue envelope may lead to cutaneous telangiectasia and trophic changes. As in any rhinoplasty, the surgeon must enter the operation with a well-devised plan of action. But revision surgery also requires a talent for improvisation in cases where, say, anticipated structures are not found or cannot be realigned or trimmed in the usual way. Scars are bradytrophic and hamper the uncomplicated healing of implants. This is why only autologous tissues should be used in revision rhinoplasties. Richard Goode’s advice to “replace what is missing with like material” is a sound rule to follow.^{5,6} For these and other reasons, revision rhinoplasties belong in the hands of experienced surgeons.⁷ **Fig. 1.3** illustrates a hemitransfixion incision for a primary septorhinoplasty. Even this approach can be problematic in revision cases.

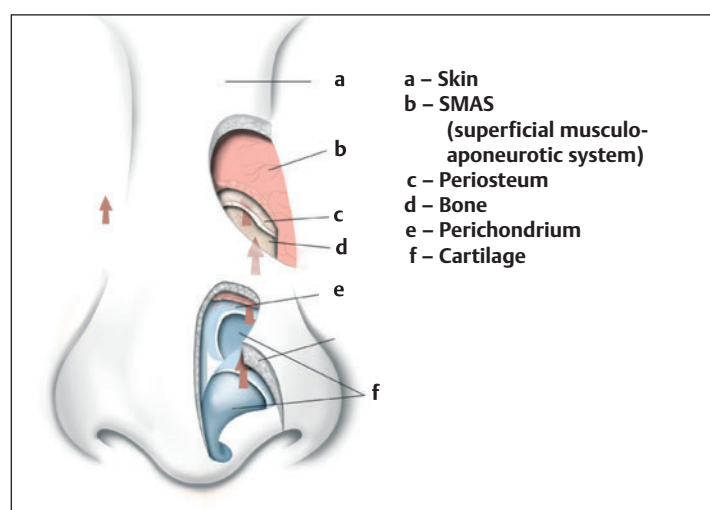


Fig. 1.2 The ideal surgical plane for rhinoplasty.



Fig. 1.3 The hemitransfixion incision is the most commonly used rhinosurgical approach. Sharp dissection of the surgical plane between the mucoperichondrium and anterior septal cartilage allows for safe, bloodless surgery.

1.4 What Can We Learn from Revision Surgery?

Of course, a book on revision rhinoplasty is also a book on primary rhinoplasty because it will inevitably raise the question: How can I avoid revision surgery? A second question is: Can I avoid revisions entirely, and if not, to what degree? Are there deformities that are inherently more likely to require later revision? If this happens, is the first operation a failure? Under what circumstances are revisions most likely to be needed? To answer

these questions, the surgeon must be fully open to a critical analysis that will show whether a particular revision is traceable to a flawed surgical concept, technical imperfections, a wound healing problem, or an unpredictable deformity.

Regardless of these questions, this book urges every surgeon to make the most of a primary rhinoplasty and accomplish as much as possible in the ideal setting of unaltered tissues. Adamson called rhinoplasty “the thinking man’s operation,”⁴ and this principle is illustrated in **Fig. 1.4**.



Fig. 1.4 A 21-year-old woman presented with the desire to remove her nasal hump and narrow the nasal tip. “Hump removal” would not have improved the aesthetic outcome, however, and in fact would have worsened it. Analysis of findings: (a) Front view shows disproportion between a thin, delicate nasal pyramid and a broad tip. (b) Profile view shows a depressed nasal dorsum (nasofrontal angle). (c) Basal view shows a boxy tip. Surgical concept: Do not reduce the nasal dorsum! (g) Instead, augment the nasofrontal angle with an onlay graft from the nasal septum. Use the delivery approach and a transdomal suture to narrow the tip and decrease the interdomal angle. (d–f) Result at 15 months. A targeted, minimally invasive procedure has improved the patient’s overall attractiveness and appearance.

1.5 Most Frequent Indications for Revision Surgery

From 5% to 15% of patients who have a primary rhinoplasty will undergo revision surgery, depending on the experience of the first operating surgeon.^{4,8} Rates as high as 30% have been reported for complex deformities such as a crooked nose.⁹ A special characteristic of nasal surgery is its dual nature: it has both functional and aesthetic goals. Both aspects factor into every nasal operation to some degree. On the one hand, a large percentage of candidates for purely aesthetic rhinoplasties are found, on closer analysis, to have nasal airway problems. On the other hand, primary rhinoplasty is followed by an ~ 10% incidence of surgery-related airway complaints.^{10–12} From 60% to 70% of patients who present for a revision rhinoplasty complain of nasal airway obstruction.^{13,14} Moreover, the nasal septum is a central structural element that must also be integrated into a purely aesthetic surgical concept.^{5,15}

Various classifications are used to describe the deformities that may follow a primary rhinoplasty. Usually the nose is divided into an upper, a middle, and a lower third as originally described by Jacques Joseph.¹⁶ Upper-third deformities involve the bony nasal pyramid, middle-third deformities the cartilaginous nose and middle vault, and lower-third deformities the nasal tip, ala, and columella. The upper two thirds are usually considered as a unit due to frequent concomitant deformity of the bony and cartilaginous pyramids. Another classification distinguishes among deformities of the nasal dorsum, nasal tip, nasal base, and caudal septum.

The most common deformities after septorhinoplasties are the following¹⁷:

- Polly beak deformities involving both the nasal tip and dorsum
- Dorsal nasal deformities: overresection of the nasal dorsum with saddling, dorsal irregularities after hump removal, widening (e.g., open-roof deformity), asymmetries and deviations of the nasal dorsum due to uncorrected lateral disparities or incomplete osteotomies
- Nasal base deformities: underrotation and underprojection of the nasal tip with retraction of the columella, asymmetry or widening of the nasal tip, alar collapse

Although the nose consists of just a few anatomic parts, it displays endless morphological and functional variations (Fig. 1.5). Even more important than understanding the anatomy of specific deformities is to have a basic understanding of dynamic changes involving the whole bony and cartilaginous framework of the nose after previous surgery. For example, the nasal tip is not just a composite structure formed by the anatomic components of the cartilaginous and membranous septum and the medial and lateral crura of the alar cartilages. It is an aerodynamic body whose parts are suspended and supported by the soft tissues, the subcutaneous connective tissue, the SMAS, and the skin. Destabilizing the system, by septal surgery, for example, may cause typical complex changes characterized by nasal tip and supratip deformity (Fig. 1.6).^{15,17} See also Case 1, Chapter 16.

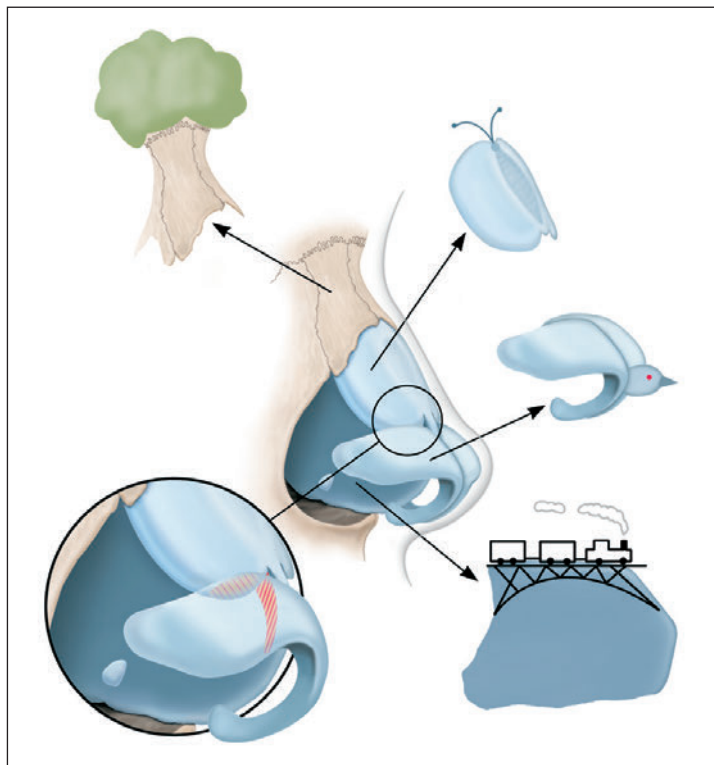


Fig. 1.5 The rhinion marks the site where the flexible cartilaginous nose is attached to the rigid bony nasal pyramid. The septum is the central supporting structure of the nose. The upper lateral cartilages (anatomically, part of the septal cartilage) have the functional mobility of butterfly wings. The lateral crura of the alar cartilages (lower lateral cartilages) determine the property of collapsibility, i.e., resistance to opening of the external nasal valve. Detail: The internal nasal valve represents the narrowest portion of the airway and is the site of greatest elasticity and functional dynamics.

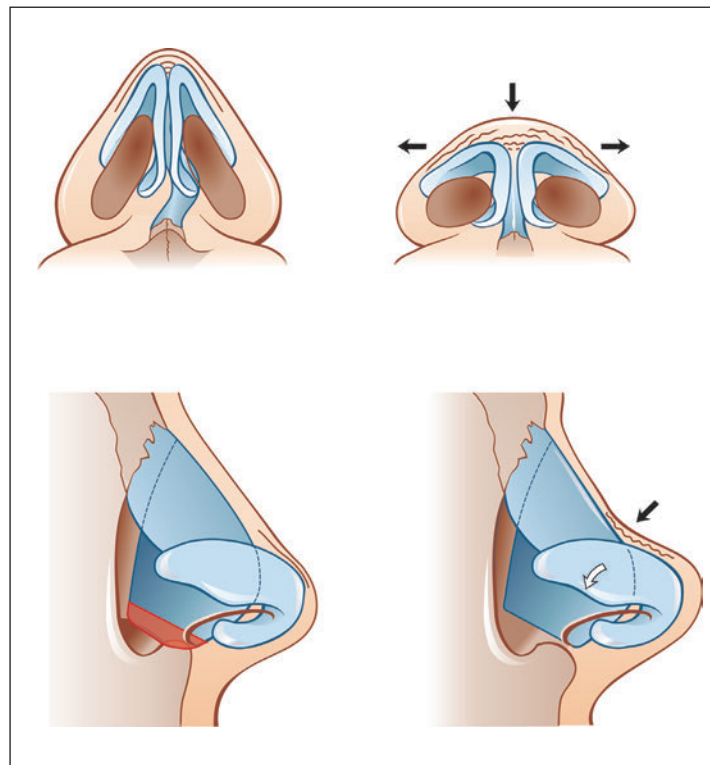


Fig. 1.6 The alar and septal cartilages, superficial musculoaponeurotic system, skin, and subcutaneous and connective tissues combine to give support and shape to the nasal tip. Any settling of the anterior septum or division of the connective-tissue fibers between the domes may cause widening of the nasal tip (after Rettinger, 2007).

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2

Basic Rules for Revision Rhinoplasties

After a certain high level of technical skill is achieved, science and art tend to coalesce in aesthetics.

—Albert Einstein, 1923

2.1 Morphologic and Functional Analysis of the Problem

A precise morphologic evaluation is essential. In making this analysis, the surgeon should have access to all previous findings including images before the primary operation, surgery reports, and imaging CDs if available. External inspection, external and internal palpation, and nasal endoscopy will reveal the scope of the problem. Often it is necessary to resect additional tissue from some structures and to augment others. As part of the analysis, then, it should be determined whether there is enough septal cartilage available for grafts or whether conchal or rib cartilage will be needed. Diagnostic maneuvers to assess function are helpful before any type of nasal revision surgery is performed. Standard tests include computed rhinomanometry and a standard olfactory test such as Sniffin' Sticks to determine perception and identification thresholds.

2.2 Functionality and Aesthetics

Every nasal operation has a dual nature. This particularly applies to revision rhinoplasties in cases where functional aspects were poorly assessed and managed initially or the previous surgery itself gave rise to functional problems.¹ The most common problems encountered in rhinoplasty revisions are:

- Stenosis of the external or internal nasal valve
- Inspiratory alar collapse due to overresection of alar cartilage
- Very low lateral osteotomies that constrict the middle vault
- Ballooning effect due to saddling in the supratip area
- Neglected hyperplasia of the inferior turbinate
- Septal deviation

Today it is no longer necessary to sacrifice function to improve nasal aesthetics. Consequently, top priority can be given to the correction of functional problems without compromising aesthetic goals.

2.3 Major Correction or Touch-Up?

Generally speaking, the surgeon always has various options when planning a revision procedure. It is helpful to have the patient rank specific objectionable features in order of their importance. This priority list provides the basis for deciding whether the main problems can be solved by minimally invasive touch-ups through a closed approach or whether an open approach is required. The first option is based on the camouflage principle using selective, circumscribed resections and augmentations, which may be performed through multiple small approaches.² The second option is used for the reconstruction of “load-bearing” walls with structural grafts or suture-anchored grafts and implants. Not every patient will require a major revision. The principle of minimally invasive touch-ups targeted at specific flaws can avoid the risks that are associated with large raw surfaces, scars, and vascular disruption.

2.4 Timing of the Surgery

In principle, significant revision surgery should be performed no earlier than 8–12 months after the primary operation. This ensures that a stable result with good scar tissue will be available as a basis for planning the revision. Residual swelling and edema are a contraindication to revision rhinoplasty. Exceptions to this rule would include asymmetries due to faulty or incomplete osteotomies, incomplete profile correction (residual hump), and graft displacement. Revisions in these cases should be scheduled without delay.² The surgeon should never take a wait-and-see approach to put off patients. If a definite indication exists for revision surgery, the surgeon must decide on the best timing. Rhinoplasty patients usually have a fairly reasonable expectation of what can and cannot be achieved. Predicting results that do not materialize after swelling has subsided will damage the trusting relationship between the surgeon and patient. The surgeon should always take the initiative in either supporting or discouraging a patient's desire for revision surgery.

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3

Psychological Evaluation



Fig. 3.1 *Amor and Psyche* by François Pascal Simon Gérard.

Patient selection is essential for a successful revision rhinoplasty. The physician will determine whether the patient's desire for surgery is justified and must decide whether a revision will actually solve the patient's problems. More than in any other specialty, the decision to perform or withhold revision surgery in cases with an aesthetic indication will depend on the emotional, conscious, and unconscious motives of the patient (**Fig. 3.1**).¹⁻³ The task of the physician, then, is to determine the psychosocial context of the desire for surgery independently of the patient's self-will. The mental disorders listed below play an important role.

3.1 Reactive and Adjustment Disorders

Facial deformities that are objectively disfiguring are often associated with reactive mental disorders. They may take the

form of an acute stress reaction or may develop later as a post-traumatic stress disorder. Patients with high vulnerability may develop an adjustment disorder in their attempt to process or overcome disease or disfigurement. Given the severity of the underlying organic problem, plastic reconstructive or cosmetic surgery is appropriate for these patients (see Case 32, Chapter 25) and may lead to a resolution or improvement of psychological symptoms.⁴ But if the mental disorder itself is the dominant finding, even a successful operation may cause psychological disturbance in patients who were projecting their emotional distress onto their physical defect and using it as an excuse for that distress.⁵

3.2 Depressive Disorder

Approximately 20% of patients who seek cosmetic surgery have a depressive disorder. The main symptoms are a depressed mood, loss of interest or pleasure in daily activities, apathy, and heightened fatigability.⁶ Other symptoms such as body dysmorphic disorder with low self-esteem should be given particular attention in cosmetic surgery because they may create a motive for the operation. The interviewer should ask specifically about suicidal thoughts, which must be excluded. Any evidence in that direction would contraindicate the surgery and prompt an immediate referral for psychotherapy.

3.3 Comorbidity

"Comorbidity" refers to physical symptoms that coexist with a mental disorder. Comorbidities may significantly affect the motivation for and course of aesthetic surgery. Psychological disturbances such as affective disorders (6.3%), anxiety disorders (9%), and somatoform disorders (7.5%) have a high prevalence in the general population. International studies have shown that mental disorders are significantly more prevalent in patients who seek aesthetic surgery.^{4,6,7}

3.4 Social Phobias

Anxiety reactions are centered on the fear of being watched and judged by others. Affected individuals tend to avoid social situations, which interferes with relationships, resulting in psychosocial isolation. Primary social phobias in the absence of physical abnormalities are usually associated with a feeling of low self-worth and may cause the patient to seek cosmetic surgery. Eleven percent of patients with social phobia were found to have a body dysmorphic disorder.⁸ Cosmetic surgery is not advised in this subset of patients.

3.5 Anxiety Disorders

Increased anxiety scores were found in patients seeking cosmetic surgery.⁹ Preoperative symptoms included panic disorders with

intense anxiety, palpitations, rapid heart rate and associated autonomic signs, profuse sweating, trembling, shortness of breath, and dizziness.²

3.6 Compulsive Disorders

A constant preoccupation with external appearance is characteristic. A distinction is made between compulsive thoughts and compulsive actions. Compulsive thoughts constantly recur, center on the aesthetic aspects of a deformity or operation, and are experienced as intrusive and fraught with anxiety and discomfort. Compulsive actions may be characterized by repetitive rituals, often lasting for hours, or by cosmetic surgery, constant primping, or preoccupation with physical appearance. Surgery is not advised for this subset of patients.

3.7 Somatoform Disorders

These disorders are characterized by recurring physical symptoms combined with a stubborn insistence on medical examinations and treatments despite repeated negative results and physician assurances that the symptoms do not have a physical cause.⁹ One particular hypochondriac disorder, body dysmorphic disorder (dysmorphophobia), is important in the setting of cosmetic surgery. Somatoform disorders are a contraindication to rhinoplasty.

3.8 Body Dysmorphic Disorder

The alternate term, “dysmorphophobia,” comes from Herodotus’ myth about Dysmorphia, the ugliest girl in Sparta.¹⁰ The central feature is an excessive concern about a perceived defect in physical appearance. This defect is either slight or nonexistent and is insufficient to account for the patient’s distress. Body dysmorphic disorder (BDD) is one of the leading contraindications to cosmetic surgery and is the most important absolute contraindication.^{2,11,12} The stated goal for most candidates is to restore psychological equilibrium, but even a successful operation may not achieve that goal. On the contrary, patients may perceive a successful outcome as a failure because they have attached other expectations to it. The main diagnostic tools are the personal and third-party history and screening instruments such as the Body Dysmorphic Disorder Diagnostic Module with six items or a severity rating scale for BDD. Patients with BDD should be referred to a mental health professional.

3.9 Personality Disorders

Personality disorders are difficult to diagnose. One type is histrionic personality disorder, characterized by excessive emotionality and constant attention seeking. Narcissistic personality disorder is characterized by excessive self-love combined with hypersensitivity to criticism (Fig. 3.2). Patients with personality disorders tend to be demanding toward others, lack empathy with others’ feelings, and tend to blame others for their failures. Surgery is not advised for this subset of patients.^{12,13}

3.10 Surgical Addiction, Munchhausen Syndrome

These individuals have an addiction to medical investigation and treatment that is often focused on cosmetic operations. They seek surgery that is not medically indicated. Patients often have a history of multiple previous operations performed for obscure



Fig. 3.2 *Narcissus* by Caravaggio.

reasons. The surgeon may become an unwitting instrument in the patient’s psychopathological quest to undergo medical procedures. A friendly demeanor will change abruptly to rage if the doctor refuses to operate. These patients are not good candidates for cosmetic surgery.

3.11 Schizophrenia

Schizophrenia is characterized by bizarre delusions and hallucinations, which are often revealed when the patient is questioned about his or her self-perception and motivation to seek surgery. It is an indication for psychiatric treatment. Other features are ego-syntonic, paranoid convictions, and changes in affect and thinking. Cosmetic surgery is contraindicated.¹⁴

3.12 Psychometric Analysis of Septorhinoplasty Candidates

Effective tools are available for evaluating psychometric parameters in patients who seek functional–aesthetic nasal surgery and for identifying possible psychological contraindications. Of course the most severe potential complication of a rhinoplasty or septorhinoplasty is the death of the patient or surgeon.¹² This would be rooted in a faulty assessment of preoperative psychological status.⁵ In one study, validated and standardized questionnaires were used to collect psychometric data such as anxiety, depression, private and public self-consciousness, and general and nose-related life satisfaction in 101 candidates for septorhinoplasty. The patients tended to score higher in the traits of anxiety, public self-consciousness, and dissatisfaction with their nose.¹⁵

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4

Complications and Risks

The principal risk of a rhinoplasty is the presence of a significant new or residual nasal deformity after the operation (**Fig. 4.1**). This is due to the fact that the definitive result of a rhinoplasty cannot be accurately predicted. When should the definitive result be assessed? At several months, 1 year, or 10 years after the operation?

Healing is a dynamic process that proceeds at different rates in different individuals and may be associated with varying reactions. Moreover, this process involves a variety of tissues such as the skin, subcutaneous tissue, fascia, superficial musculoaponeurotic system (SMAS), nerves, vessels, bone, cartilage, perichondrium, and periosteum. The surgeon should traumatize these tissues as little and as briefly as possible to promote uncomplicated healing. Complications may arise from the individual tissue types or from surgical materials such as sutures, implants, and grafts.¹

Atraumatic surgery should cause very little swelling. The degree of eyelid hematoma depends on skin and connective-tissue type and on the individual propensity for hematoma formation. Possible early complications include hematoma, local infection, and skin necrosis. Later complications may consist of atrophic skin changes, sensory disturbances, granulomas, or cyst formation.^{2,3} Orbital complications may have a traumatic or inflammatory cause. Rhinoplasty may cause injury to the lacrimal ducts or orbital contents.⁴ Vascular and intracranial complications are rare but have been described.^{5,6} Cerebrospinal fluid rhinorrhea, cerebritis, brain injury, carotid-cavernous fistula, and septic cavernous sinus thrombosis with subdural empyema have all been reported after rhinoplasties.^{4,7} Devitalization and discoloration of the anterior teeth may result from osteotomies or surgical manipulations around the nasal floor or piriform aperture.⁸ It has also been shown that rhinosurgery may evoke a nasocardiac reflex leading to intraoperative bradycardia or even asystole.⁹

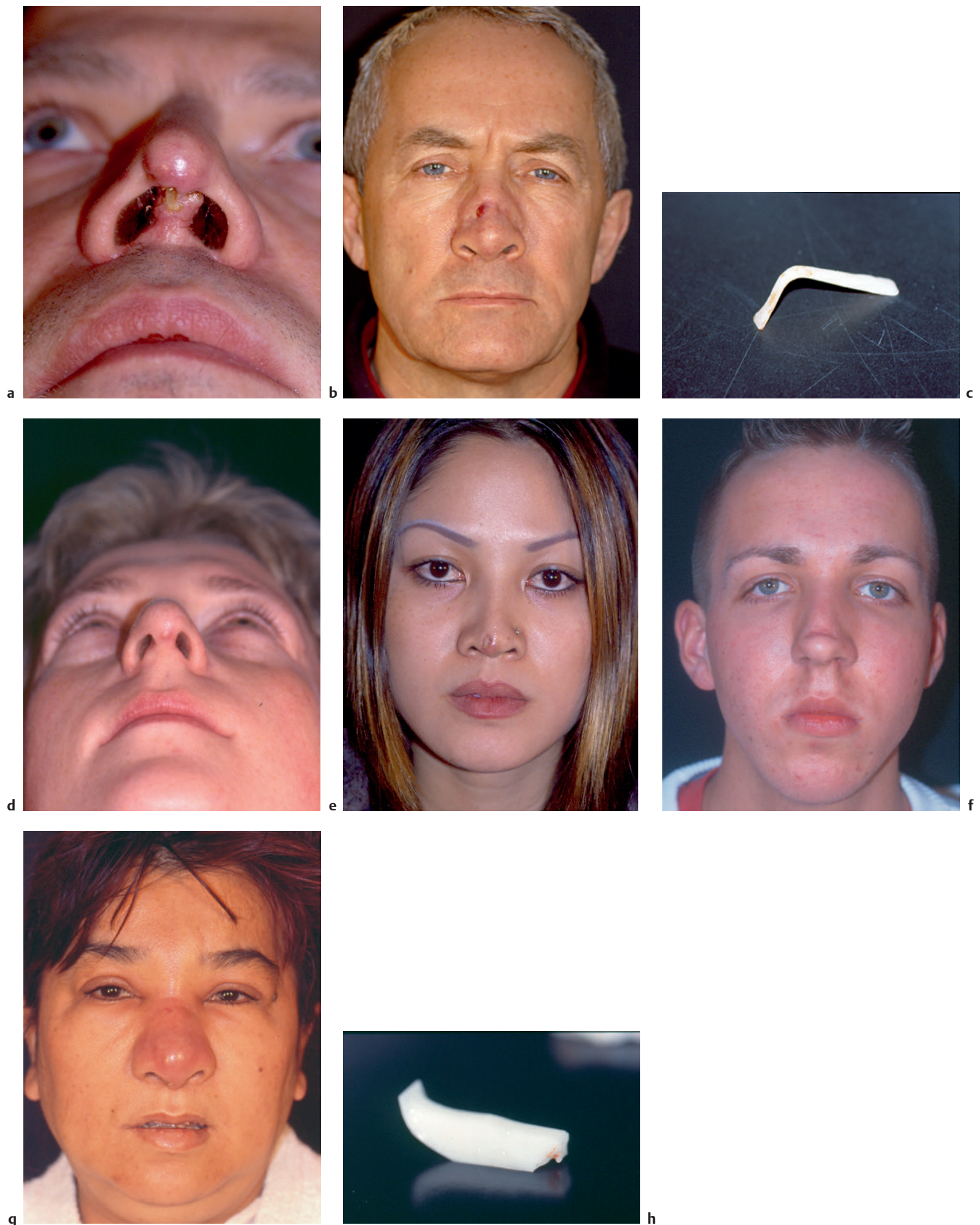


Fig. 4.1 Some typical complications of septorhinoplasty. (a) Extrusion of a polyethylene implant 1 year postoperatively. (b) Fistula formation over a polyvinyl chloride implant 30 years after implantation. (c) The implant in (b) after removal. (d) Suture fistula 4 months after surgery.

(e) Extrusion of a silicone implant 3 years after surgery. (f) Pressure sore from a nasal cast. (g) Infected silicone implant 10 years after insertion. (h) The implant after removal.

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5

Reference Points in Aesthetic Facial Surgery: Part Mathematics, Part Intuition

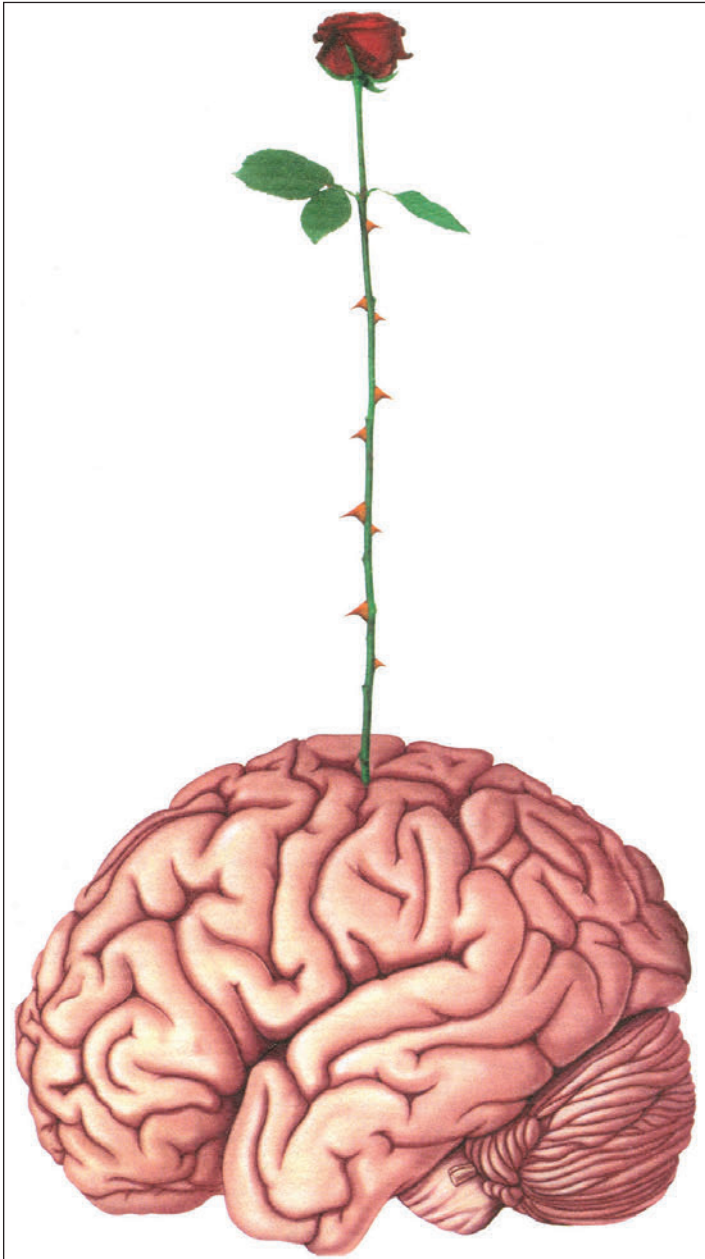


Fig. 5.1 Logo for the “Happiness” exhibit at the German Hygiene Museum, Dresden. (With permission of Stiftung Deutsches Hygiene-Museum, Dresden, Germany.)

5.1 Taking Stock: The Goals of Revision Surgery

The first impression is always an outward one. We perceive the proportions of a face, the skin type, and especially the overall

facial appearance and attractiveness. Fine, symmetrical facial features are perceived as more aesthetically appealing than coarse features. But the more time we spend with a person, the more other qualities start to matter: personal charm, voice, and character. These qualities are also important in evaluating candidates for facial revision surgery. Taken as a whole, they may “trump” the external facial features or they may not. A perfect face is not beautiful if it masks an arrogant or narcissistic personality. Inner beauty, then, is ultimately superior to outer beauty while also serving to enhance it.

The question of whether aesthetic surgery can make people happy is disputed. An exhibition titled *Glück welches Glück* (“Happiness What Happiness”) opened at the German Hygiene Museum in Dresden in 2008 and dealt with this question (**Fig. 5.1**).¹ It included an exhibit on cosmetic surgery featuring surgical instruments from various periods of history so that visitors could experience the practical side of cosmetic surgery. The instruments designed by Jacques Joseph were of particular interest. Joseph repeatedly cited the great psychological importance of reconstructive and cosmetic surgery in his writings. Going against the mainstream of contemporary professional thought, he was the first to define cosmetic surgery as an aesthetic endeavor.²

Everyone has their own definition of happiness. Most candidates for revision rhinoplasty and most of our own patients come to us because they hope to be happier by becoming more attractive. Some are struggling with a sense of being disfigured due to an accident or tumor resection. The hopes of becoming both happier and more attractive are in fact justified, because patients tend to be more self-confident and content following a successful operation. In this sense, a positive result of revision surgery can make people happier.

The present book runs the gamut from major and minor functional–aesthetic corrections to breathtaking reconstructive revision surgery. This is in keeping with the philosophy of Joseph, who wrote:

The principal motive is not vanity but a sense of being disfigured, or an antipathy toward disfigurement and its psychological effects. The goal of rhinoplasty, then, is to cure mental depression by creating a normally shaped nose. It has an unquestionable social impact and represents a significant branch of surgical psychotherapy.²

Figs. 5.2 and **5.3** show two examples of the innovative work of Jacques Joseph illustrating two sides of the same coin: functional–aesthetic surgery and nasal reconstruction.

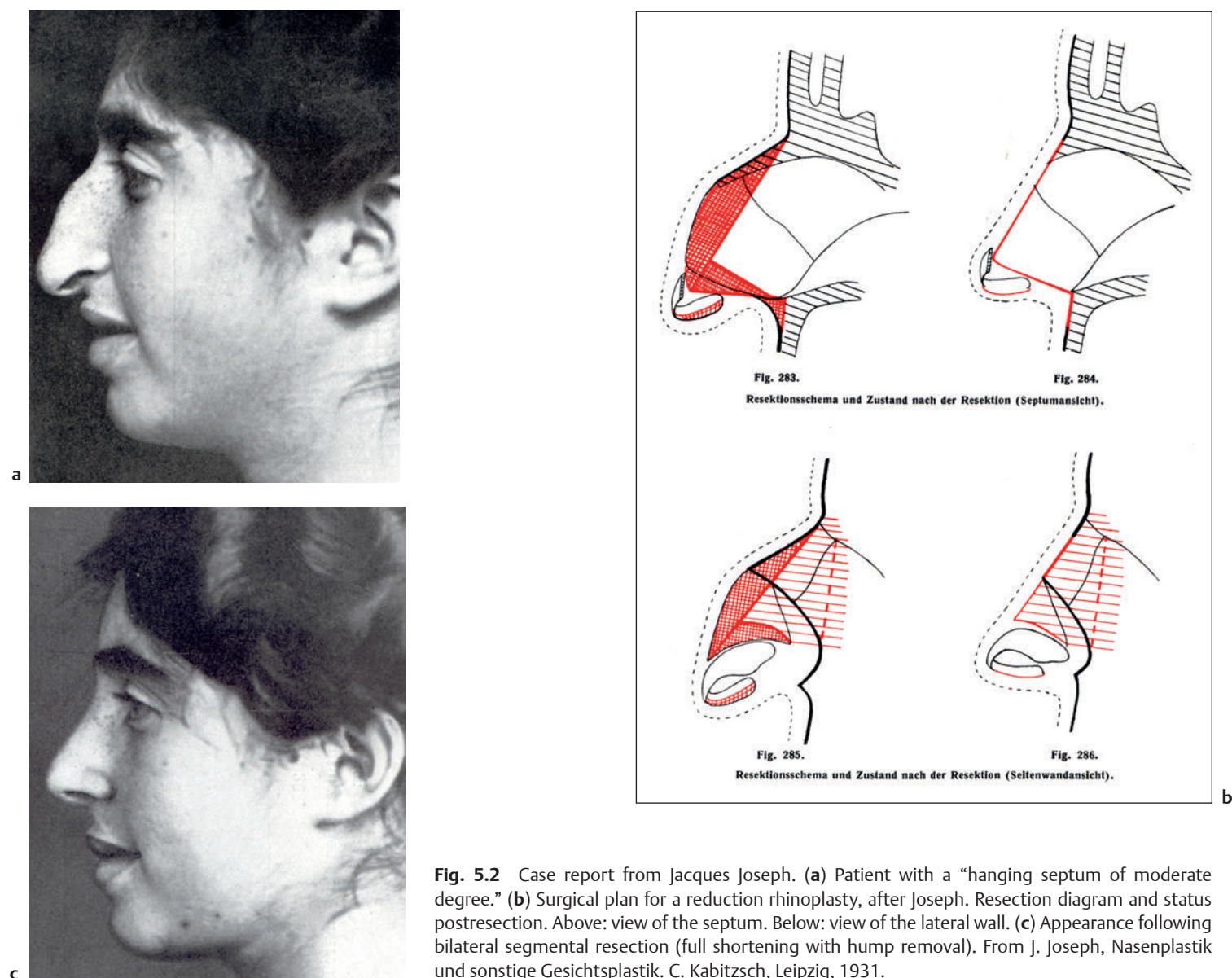


Fig. 5.2 Case report from Jacques Joseph. (a) Patient with a “hanging septum of moderate degree.” (b) Surgical plan for a reduction rhinoplasty, after Joseph. Resection diagram and status postresection. Above: view of the septum. Below: view of the lateral wall. (c) Appearance following bilateral segmental resection (full shortening with hump removal). From J. Joseph, *Nasenplastik und sonstige Gesichtsplastik*. C. Kabitzsch, Leipzig, 1931.



Fig. 5.3 Case report from Jacques Joseph. (a) Total nasal defect in a young soldier. (b) Forehead incisions for nasal reconstruction (Joseph forehead flap). (c) After “surgical modeling and bone implantation.” From Joseph J. *Nasenplastik und sonstige Gesichtsplastik*. Leipzig, Germany: C Kabitzsch; 1931.