

A Boutique Guide To Aesthetic Face Care

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Philosophy

J. Daniel Labs, MD, The Face Boutique, and all of the Aesthetic Consultants on staff within the organization seek to provide state of the art, integrated life strategies for health and beauty. Our select clientele are motivated to accept this disciplined approach, and in return, are rewarded by the practice philosophy, quite simply stated:

“Look your best...Always!”

Introduction

Beautiful skin is at the heart and soul of youthfulness, visual vibrancy, and the aesthetically pleasing face. Few would find controversy with natural, homogenous, elastic, soft, unwrinkled skin, but this is not our challenge. Rather, the true art of aesthetic face care is to apply the science of skin care and when necessary, the precision of plastic surgery to effect results that are indeed young and healthy in appearance.

Classical shapes often define the face, both in artistic renderings and real life as well. All are acquainted with the Mona Lisa oval structure and as well, the more angular beauty of the modern era. Shape sets the foundation of youthfulness and heightens the understanding of aging when changes must be scrutinized in order to naturally rejuvenate one's original self.

This text is intended as a primer to aesthetic face care. It is neither referenced nor exhaustive as each and every paragraph has text book level publications available. Its intent is to introduce patients and prospective patients to ideas in aesthetic care that will help them shape their own future plan and as well, to introduce those serious about aesthetic face care to the depth of support that they can expect from the Face Boutique and Dr. Labs when it comes to their face.

Millennium Concepts

Skin Quality and Face Volume

Tight skin, in the 1970's, defined the primary goal of rejuvenation. The concept ignored the skin itself as well as the tendency for all stretched tissues to relax with time. Early face lifts looked “different” to be sure, but not necessarily younger.

In the 1980's, aesthetically interested professionals believed that augmentation of the facial framework with implants would “re-drape” the skin in a more youthful position. This “angularized” even the most oval faces and the concepts, while still applied for instance in correcting the deficient chin, are less important in the new millennium.

In the 1990's, the front runners of the “baby boom” generation (birthdates 1946-1964) hit 50 years old and clearly did not like the way they looked. Interest in cosmetic surgery skyrocketed. Plastic surgeons, aestheticians, dermatologists, and others dedicated to aesthetic care of the face began to investigate facial aging in every possible dimension,

and in the new millennium, rationale and effective science-based solutions to anti-aging and rejuvenation have begun to emerge. And this is truly exciting!

Gravity, long blamed for facial descent, makes up only part of the modern concept of aging. While it is conceded that loss of elasticity in the skin combined with dermal thinning makes the skin wrinkle, stretch, and “droop,” digital photography over time has demonstrated very little actual downward descent of the tissue. Rather, loss of facial volume and declining skin quality have emerged as the analytically accurate primary factors of aging in the face. Indeed, most current anti-aging and rejuvenating methods now focus on improving skin quality and shape restoration through tissue augmentation and repositioning to correct these two essential stigmata of time as related to the face.

In summary, facial aging is best understood when one scrutinizes:

1. Loss of soft tissue volume resulting in shape changes like sunken cheeks and eyes, and thinning lips
2. Degradation of skin quality resulting in thin, dry, stretched out skin often with color variegations

Cumulative Damage

Cumulative damage over time highlights the current understanding of aging skin. This is best appreciated with solar damage from chronic sun exposure—the more exposure, the more damage. The concept is similarly well founded in skin cancer etiologies were not only sun exposure, but chemical exposures over time not only lead to skin degeneration, but actual tumor genesis. Behavioral factors can contribute significantly to cumulative damage problems as well with smoking now clearly shown to affect wound healing, skin microcirculation, and skin appearance.

Genetic co-variables greatly impact the effects of cumulative damage of the skin. Fair skin that is freckled, never tans, and always burns with sun exposure is an inherited trait making one most susceptible to premature aging and skin cancer. Interestingly, scarring in the fair skinned individual is often considered ‘favorable’ which may reflect a less intense reparative process in patients with this skin type.

Skin Cancer

A century of intense research in the immediate past millennium has not yet clearly established the etiology of cancer. ‘Cellular mistakes’ occur with replication, most often resulting in cell death, but in cancer, the abnormal cells live and actually replicate forming more abnormal cells, and a tumor results. Cumulative solar damage is the best documented causative factor in skin cancer, and it is essential to understand that this is also the most completely described factor in skin aging.

Anti-Aging

Akin to diet and exercise, anti-aging strategies are the day to day mission in face care. Minimizing cumulative damage, stimulating deep tissue integrity, and maintaining the natural surface dry layer in its youthful soft state are the goals. Behavioral factors are

critical to the life plan for anti-aging. As well, topically applied pharmaceuticals can have powerful beneficial effects over time.

Rejuvenation

Akin to art restoration, facial rejuvenation procedures require a carefully choreographed sequence of accurately applied steps exactly matched to the individual's specifically aged features. Temporal staging is critical, and many 'finesse' options are available throughout the timelines of aging. A well thought out life plan on what to do when will consistently result in the Aesthetic Consultant practice goal of looking your best...always!

Anatomy of the Skin

The skin is the largest organ of the body and is the presenting interface with the world. Variations in thickness are dramatic (eyelids versus back), but the basic structure throughout is divided into two layers: epidermis, and dermis.

The epidermis, comprising about 5% of the skin's thickness, presents a dry surface to the external world and a cellular layer adjacent to the deeper dermis. A blister from sun burn separates the epidermis from the dermis with wound fluid in between helping conceptualize the layers.

The dermis is the structural layer of the skin comprising 95% of the skin's thickness. It is predominately made up of collagen (a structural protein), and contains all of the elastic fibers in the skin.

The epidermis can 'regenerate,' but the dermis cannot and scars after it is damaged significantly.

Aesthetic considerations:

- The dry surface of the skin has a great deal to do with the way the skin looks. It represents a barrier to environmental agents of all varieties and is reasonably repellent of water (hydrophobic). As such, topical medication delivery through this dry layer is limited to a certain degree, but many agents have proven value.
- The dermis is stretch-resistant in the short term within its elastic limits, but can stretch almost indefinitely over time (consider the pregnant abdomen with twins). These biomechanical characteristics can confound even the most well planned attempts to 'tighten' the skin.

Pathology of Aging

Epidermis

- Decreased cellular turnover
- "Mistakes" in cell replication and exfoliation resulting in both benign and cancerous problems
- Dry layer (stratum corneum) thickening and build up

- Variegated pigmentation

Aesthetic consequences: dry, dull skin with a non-homogenous tone

Dermis

- Dermal thinning (actual loss of collagen)
- Elastosis (fragmentation of elastic fibers)

Aesthetic consequences: fine wrinkling, course wrinkling, sagging, stretching, loss of elasticity

Aging, therefore, consistently results in thin, dry skin.

The Pathology of Skin Cancer

Basal Cell Carcinoma

Sixty percent of all skin cancers are basal cell carcinoma. These tumors arise in the basilar layer of the epidermis and spread locally and gradually. They typically erode through the stratum corneum with time, ulcerate, and bleed with intermittent, temporary healing over the ulcer.

Squamous Cell Carcinoma

The next most common skin cancer is the squamous cell carcinoma. These tumors are slightly more aggressive than basal cell tumors and occasionally become invasive and spread to regional lymph nodes.

Melanoma

By far and away, melanoma is the most serious cancer of the skin arising from melanocytes in the basilar layer which are responsible for producing pigment. There is a well established architectural continuum from benign pigmented moles to atypical moles to melanoma in situ and then melanomas of levels 1-5. Of critical importance is the propensity of melanomas past level 2 to spread systemically with only limited treatments available once they spread.

Aesthetic Considerations: solar damage to the skin is a known etiologic precursor to BOTH skin cancer and skin aging.

Health Considerations: development of skin cancer increases one's lifetime risk of having another, amplifying the need for on going care.

Corrective Modalities

Prevention

“Hat and sunscreen” remain the most powerful preventative measure to reduce solar induced skin damage. Other chronic exposures, such as smoking, also contribute significantly to skin deterioration and must steadfastly be avoided.

Topicals

Moisturizers

Emollients, hydrating agents, and organic barriers all have utility, albeit temporary, in helping the skin hold on to moisture. Effectively, this increases skin volume reducing wrinkling to a limited degree.

Sunscreens

From zinc oxide and other physical screens to chemical agents that absorb non-ionizing solar radiation UVA (320-400 nm) and UVB (290-320 nm), there is a sunscreen out there for everyone. SPF is the ratio of the amount of UVB energy necessary to produce skin erythema (redness) through the sunscreen versus without the sunscreen. A minimum SPF of 15 or greater is typically recommended.

Alpha-Hydroxy Acids

Glycolic acid, a naturally occurring substance from the onion, is perhaps the best studied alpha-hydroxy acid. When topically applied to the skin in appropriate strengths, glycolic acid can loosen adherence of keratinized dry surface cells thereby effectively reducing the thickness of the stratum corneum. Alone, glycolic acid applications can improve skin luster and tone through repeated, gentle exfoliation. In combination with a dermal stimulant like Retin-A, significant anti-aging and skin rejuvenation can be accomplished over time.

Vitamin Analogs

Vitamin A analogs such as retin-A have been studied extensively for over 30 years. When topically applied repeatedly, retin-A and other related substances can reverse elastosis and collagen loss in the dermis resulting in more youthful skin both in its outward appearance and under microscopic examination. These topicals remain a mainstay in anti-aging strategies.

Vitamin C complex acts similarly to vitamin A compounds, but tends to be more irritating. It is used as an alternative to retin-A related compounds.

NAD or Nicotinamide normalizes epithelial cell turnover resulting in correction of age related epidermal changes. Developed as a skin cancer preventative, its role in anti-aging is currently being established.

Hydroquinones

In 4% strength, hydroquinones applied topically 'turn off' pigment producing cells temporarily. The compounds find utility in preparing the face for laser and peel treatments and in reducing color variegations that are typical of aging.

Lasers

Erbium lasers are the new millennium's 'kinder, gentler' laser with fantastic safety and efficacy characteristics. Here's why:

- Micron level control equal to the diameter of a single cell
- Minimal heat production = minimal collateral 'burn' injury
- Rapid regeneration of the epithelial skin layer without destruction of the pigmented layer
- Fine wrinkle reduction and improvements in skin tone; minor skin shrinkage

The Sciton corporation's flagship Erbium laser is the industry standard. The procedure typically performed called a Microlaserpeel is very controllable and adjustable allowing everything from a light 'dusting off' of the skin's thickened dry layer all the way to complete removal of the dry layer and beyond. The net effects are twofold: dermal stimulation which reduces wrinkles, and epidermal normalization with better tone, vibrancy, and overall appearance.

A typical Microlaserpeel takes only 3-4 days for complete recovery and can be combined safely with other plastic surgical procedures.

Aesthetic Consultants of Naples, under the direction of Dr. Labs developed, tested, and deployed the 'Scarless Facelift' protocol combining state-of-the-art technology with proven skin care methods. Results have been very well received, and there is simply no better way currently available to rejuvenate aged skin.

'Scarless Facelift' Protocol:

1. Botox and Fillers
2. Microlaserpeel—superfine removal of dry surface buildup
3. Biomedic Medical Skin Care—glycolic acid Micropeels combined with vitamin analog dermal stimulation for skin maintenance

The Microlaserpeel is performed under sedation and requires only 30 minutes. The face's dry surface layer rapidly reforms over 3-4 days leaving the skin fresh while tightening occurs over a 6 to 8 week interval. Botox and fillers are administered at the same time as the laser procedure for maximum comfort, control, and accuracy. Skin care commences just as soon as complete healing is achieved with a total 'downtime' of about a week. This is truly cutting edge technology without the cutting! And, the protocol can be repeated and is also safe after facelift surgery when wrinkle begin to re-appear.

CO2 lasers must be discussed because their history is crucial to our understanding of aging skin treatment. This controllable modality strips away layer after layer of the skin causing marked shrinkage of the dermis as well as inducing a micro-thin, stable collagen

(scar) layer in the dermis. The results are often dramatic with reduction of wrinkling and restoration of the skin's surface. The MAJOR drawback to the technique is that the entire epidermis, including the pigmented layer, must reform from deeper skin elements after the procedure, very analogous to healing from a second degree burn. While scarring is occasionally problematic, long healing times, redness, and pigment instability are consistently problematic and may be permanent—too little pigment leads to a 'porcelain' appearance; over reactivity of the pigment layer results in a brown, blotchy appearance which can be difficult to correct.

Peels

Glycolic Acid

Glycolic acid is a naturally occurring substance and is part of the Alpha Hydroxy group of acids. Long recognized for its positive effects on the skin, glycolic acid serves to loosen dry surface build up thereby normalizing the skin's surface to a more youthful state. Up to 70% glycolic acid is available and safe to apply topically in appropriately selected individuals. Any depth of peel can be achieved according to acid concentration and time of exposure prior to neutralization.

Light peels focused on the dry surface skin layer, called Micropeels, are most popular because of the minimal 'down time' and are part of the Biomedic Medical Skin Care program.

Salicylic Acid

Analogous to glycolic peels, salicylic acid peels provide good safety, efficacy, and controllability. These peels are typically superficial.

Trichloroacetic Acid (TCA)

TCA is available in a wide range of concentrations and can be used for virtually any depth of peel procedure, although it is most popular for superficial treatments. Variations in skin surface oil content affect peel depth and must be meticulously addressed prior to the procedure.

Phenol

The 'Miami peel' of 40 years ago remains occasionally appropriate in experienced hands. The dramatic results of these consistently deep peels are tempered by pigment instability, prolonged healing times, and scarring.

Many other peeling agents and combinations are available, but typically exploit established agents as the 'active' ingredient.

Fillers

Natural

Facial aging results in degradation in skin integrity and volume loss in of the subcutaneous (fat) layer. Consider the round cheeks of a baby and the hollow sunken

appearance of the cheeks and eyes, and the thinning lips in the elderly to understand this fundamental change of aging. No facial bones are appreciated in the baby; in the aged adult, however, one can often trace out the eye sockets, nasal bones, cheek bones, and chin very readily as they are covered only by thin skin and a fine remaining muscle layer. For this reason, the search for the ideal replacement 'filler' continues as a major strategy in facial rejuvenation.

Fat is the biomaterial that wanes in the face with passing years, and it is wholly appropriate, therefore, to attempt to replenish 'like' with 'like.' Fat grafting has been performed for a century with mixed results. Methodological improvements in harvesting, handling, and placement of grafts has improved success, and many experts believe that fat injections are the first choice for soft tissue facial augmentation.

Dermis, fascia, bone, and just about every other biomaterial have been grafted at one time or another for cosmetic and reconstructive purposes. Ease of harvest, availability, lack of donor site problems, and long term texture characteristics keep fat in the forefront of autologous soft tissue augmentation.

Synthetic

Over 30 synthetic, semi-synthetic, and re-processed biomaterials are available for soft tissue augmentation, with collagen perhaps best known. All of the materials absorb over time, and complication rates, while low, are certainly not zero.

Juvederm is the most frequently used filler in our practice. It is a cross-linked hyaluronic acid compound meaning that it is a synthetically produced but naturally occurring substance. It is combined with the local anesthetic lidocaine to reduce discomfort. Juvederm lasts 6-9 months typically and is completely absorbed with no residual. It's great for lips, of facial lines of all types. Best of all, it rarely causes lumps.

Radiesse is a product that has been used extensively with success at Aesthetic Consultants of Naples. Radiesse has unique long-term characteristics (2 years or greater) making it an attractive soft tissue augmentation material. The base substance is synthetically produced hydroxyl apatite which is a bone building block. Radiesse has been used in medicine for over 20 years successfully, but only recently has it achieved approval for cosmetic purposes in the face. 10% of the time, transient nodules form that nearly always resolve over an 8 week period. This risk seems well accepted given the long-term product stability.

Horizons in Technology

Radiofrequency dermal stimulation, trade name Thermage, is approved for application to the face, has been used for several years in orthopedic joint surgery. The concept provides that collagen shrinkage can be achieved with sub-lethal heating of the tissues under controlled circumstances. The major drawback to the technique is that many patients do not respond, and the results are limited and transient.

Light therapies like N-Lite and Fraxel provide office-based procedures to improve skin quality. They are repeatable, gentle, and cause minimal morbidity, but the efficacy at present is considered very weak and few find them worth the cost when results are critically reviewed.

Photodynamic therapy has long been conceptualized in the treatment of serious systemic conditions and recently has been adapted for use on the skin. The concept provides that a chemical agent, ingested or applied topically, can be ‘activated’ with certain laser light exposure. The active agent then performs the physiologic task for which it was designed. Look for this strategy to improve with research on light activated skin treatments.

The bottom line is this: technology innovation driven by an epidemic of skin cancers is likely to generate progress in the area of facial rejuvenation and skin restoration. At present, Erbium laser resurfacing and topical pharmaceuticals offer proven efficacy for both aging restoration and skin cancer risk reduction.

Behavior Modification

Diet

No patient cohort in recorded history has been as knowledgeable, fastidious, and indeed obsessed with diet like the ‘baby boomers,’ born between 1946-1964. From low fats to high carbs, to low carbs, to high protein, to low sugars, to calorie restriction, nearly every diet strategy imaginable seems to have been tried.

Let’s, therefore, step back to the science of nutrition. TPN or total parenteral (IV) nutrition began in the 1970’s to support patients with desperate medical conditions precluding the ability to eat. Scientists learned about essential vitamin doses, trace element requirements, fat requirements and deficiency states, and the ability to use the protein building blocks called amino acids to support human life. Long term survivors proved many concepts.

Balance remains the key to diet concepts with deficiency states well documented in nearly every nutritional category. Interestingly, very few ‘mega dose’ vitamin strategies have merit—many are harmful. Fat and fat metabolism seems to be physiologically more variable than proteins and carbohydrates, with dietary cholesterol correlating only poorly with blood cholesterol levels. The cardiovascular literature has studied this issue exhaustively. The bottom line is this: 1). Genetic makeup plays a large role in the way your body handles fats, and 2). Specific circulating fats can exacerbate atherosclerosis. Essential fatty acids are critical to skin and hair growth.

Exercise

The effects of exercise on the skin are poorly studied. Notwithstanding, exercise is critical to an overall anti-aging strategy with proven benefits well described in the cardiovascular medical literature.

Weight Control

Fluctuations in subcutaneous and intra-abdominal fat content with diet have major aesthetic consequence—not all desirable! In the waste, flanks, hips, and thighs, few would argue with the positive outcome of gentle consistent weight control. In the face, however, loss of subcutaneous tissue frequently exceeds the ability of the skin's elasticity and the result is a deflated and aged look.

Particularly problematic for the face are the large weight fluctuations. Patients struggling with weight issues often bounce between being too heavy and occasionally getting too thin. The face never recovers from these dramatic changes in fat stores and nearly always ends up with low soft tissue volumes in the cheeks, lips, and around the eyes and hanging skin in the jowl region and neck. When this occurs, a facelift and supplemental fat injections can correct much of the deformity. A far superior strategy, however, is tight weight control with gradual loss over time, never permitting weight extremes which permanently and adversely affect facial aesthetics.

Botox

Muscle modification through temporary chemo-denervation and paralysis began in the 1970's with derivatives of botulinum toxin. More recently, Botox treatments have revolutionized facial rejuvenation through wrinkle reduction by weakening the underlying muscles of facial expression. 'Subtracting' motion to achieve rejuvenation has broadened the detailed anatomical understanding of facial anatomy, expression, and indeed our concepts of aging.

Limited Incision Surgery

Facial aesthetic surgery, like virtually every other surgical sub-specialty, has taken advantage of fiberoptic instrumentation that permits tiny incisions for procedures that occur beneath the skin's surface. The endoscopic brow lift is now the standard of care and endoscopic face and breast surgery also are routine.

Open Surgical Approaches

The lines and planes of the face lend themselves very well to classical 'lifts' which have been refined, and indeed re-defined, throughout the last 4 decades. Skin quality and volumetric restoration remain critical in the open approach techniques, but in many ways, the 3rd generation face lift is the gold standard for major facial rejuvenation.

Classic Beauty

Aesthetic Layers

Skin

The skin, without question, has more to do with one's perception of aging than any other single feature, from color, to texture, to wrinkling. Aging factors in the skin discussed

previous can summate to make one look old even when chronological age would not otherwise be expected to create this perception.

As the presenting layer of the face, nothing deserves more attention to anti-aging and rejuvenation than the skin itself.

Subcutaneous Tissue

Between the skin and bones of the face are layers of fat and muscle that play a significant role in determining the ultimate shape and features that make each person unique in appearance. 'Baby fat' gives way to maturity, which in turn then atrophies with age. 'Deflation' with age represents shrinkage in the supporting, subcutaneous (fat) volume and results in unmistakable stigmata of aged features. In addition to a reduction in the absolute volume of facial fat, redistribution, sagging, and bulging results in lower eyelid convexity, sunken cheeks, thin lips, hollow eyes, and jowls. Digital photographic analysis has been critical in defining the concept of deflation as it pertains to aged appearance. Restorative maneuvers to reposition fat structures and augment thinned out regions can appropriately rejuvenate certain features in a very natural way.

Muscle

While lean body mass diminishes typically with age, actual decline in facial musculature and its impact on aesthetics, have not been well studied. Muscle contraction alone cannot 'support' the face, but resting tone, no doubt, has a definite impact on the way we look and in particular where wrinkles form. The rejuvenative potential of weakening muscles specifically positioned to depress and narrow the brow which results in glabellar 'scowl' lines can indeed be most rejuvenating. Crows feet and neck bands can be similarly reduce by Botox chemo-denervation or by surgical means.

Bone

The skeletal framework of the face has increasing importance with aging, especially as soft tissues deteriorate. Augmentation of the skeleton with implants or even reduction of the chin, for instance, can change aesthetics dramatically.

Maxillo-facial reconstruction after the classic steering wheel injury in the pre-air bag era taught plastic surgeons nearly everything currently known about the facial skeleton and its manipulation. Treatment of congenital deformities has likewise contributed to the wealth of knowledge in this arena.

Aesthetic Units

Reconstructive facial surgery developed a critical concept of aesthetic units of the face. Analysis has shown that when one views the face, eye contact comes first. Next, the midline nose and mouth, and then other features follow with the anticipation of symmetry from side to side.

Rejuvenation of the face can be viewed ultimately as a reconstructive procedure whereby aging is the undesirable, albeit natural, process. Aging, per se is not pathologic, but the

consequences of aging in the skin closely parallel processes like skin cancer development that clearly represent a disease state.

Forehead, eyes, nose, mouth/lips, cheeks, chin, neck, and ears all represent aesthetic units of the face. Treatment strategies, whether reconstructive or rejuvenating, are most likely to appear natural if the entire unit is addressed—consider eyelid surgery on just one side to drive home the point.

The aesthetic unit concept permits clients to select areas of particular importance as focus areas without burning any bridges and without creating an unnatural look. A brow lift and blepharoplasty, for instance, represent a wonderful restorative combination, leaving the face and neck lift for later.

Skin Cancer Treatment

Surgery

Since skin cancer requires visualization under the microscope for accurate diagnosis, it is not surprising that skin cancer removal through surgical means is the gold standard of treatment. Not only the diagnosis, but the completeness of treatment are confirmed with surgical removal and histological (microscopic) examination.

Radiation

Basal cell and squamous cell carcinoma both respond quite well to radiation therapy. This treatment remains a second choice in typical cases because radiation causes relentless and progressive skin changes that can result in non-healing wounds for which there is no acceptable treatment. Radiation does not preclude development of additional skin cancers and cannot be repeated, in general, if a second cancer arises. Therefore, radiation is reserved for difficult clinical scenarios where surgical removal is incomplete, cancers are extensive or invasive, or disfigurement from extirpation would result in unacceptable patient morbidity.

Prevention and Pre-emption

Ablation

“Just zap it!” Often times, dermatologists experienced in skin cancer work can ablate malignant or pre-malignant lesions in the office with liquid nitrogen, laser probes, or other cryo-destructive methodologies. Close follow up is necessary because the diagnosis remains clinical, and can be incorrect up to 25% of the time, and the completeness of treatment is only indicated by a failure of recurrence.

Biopsy

Tissue sampling is time honored to establish skin pathology diagnoses under the microscope. A biopsy does not treat the lesion, but rather is used to establish diagnosis and determine the possible need for further treatment.

Effudex

5-fluoro uracil cream can be topically applied to treat superficial basal cell cancers of the face. The treatment 'strips' the surface layer of the face requiring healing over a minimum 10 day period

Deep Laser Peel

Dermabrasion and deep laser peels extending well into the dermis have been used to preempt multiple skin cancers. Prolonged healing times, scarring, pigmentation changes, and pain have made these treatments of historical interest only for the most part.

Microlaserpeel

Laser tissue interaction has been studied extensively during the last century. The Erbium laser recently adapted for skin treatments is of particular interest for a variety of reasons. First, the laser is very adjustable and controllable with the ability to strip off micro thin sections of skin with unparalleled accuracy (5 micron increments = thinner than a single red blood cell). Importantly, tissue vaporization with this laser generates very little heat in the deeper tissue and so 'collateral damage' is minimal. Healing times for superficial treatments are as short as 1-3 days, and the pigment layer can be steadfastly avoided so that a hat and sunscreen are all that is needed once healing has occurred.

The laser finds great utility in stratum corneum stripping for cosmetic purposes. Since skin cancers arise in the deep epidermis and are often hidden for long periods of time by intact dry keratinized build up, surface stripping will often clearly reveal underlying pathology. With the help of surgical lighting and magnification, skin cancer pre-emption in concert with the microlaserpeel is readily accomplished, repeatable, and very well tolerated. And, the fact that the strategy is powerful in its anti-aging/rejuvenation potential makes its acceptance high in patients who have suffered previous facial skin cancers.

Skin Care

In the early 1990's, medical care of the facial skin began to crystallize with the advent of licensed aestheticians dedicated to the subject. These professionals, appropriately trained and experienced, are the vital link between patients, plastic surgeons, and dermatologists. Simultaneous with the advancement of medical grade skin care was the visual realization that the perception of aging has much to do with skin quality and improving one's facial skin health in itself makes one look younger.

In the new millennium, however, it is insufficient to make good skin look better. Rather, the challenge is to take damaged skin and make it healthier. Aging parallels closely a variety of skin pathologies considered to be precursors of skin cancer. Therefore, it is most intriguing that skin cancer prevention strategies go hand in hand with skin rejuvenation and anti-aging techniques.

Niacin, delivered as a topical precursor, vitamin A analogs, like retin-A, and vitamin C complex topicals all have been shown to have growth hormone like effects on the skin. With time, younger appearing, healthier skin with fewer cancerous precursors results.

Alpha hydroxy acids (AHA's) can effectively control keratin surface buildup that is a hallmark of aging restoring vibrancy and luster to the skin.

Combined with office-based treatments, sunscreens, moisturizers, pigment controllers, and a host of other supporting methods, the skin care specialists of the new millennium are a must for those serious about a commitment to anti-aging and anti-skin cancer lifestyles.

The Global Approach

A baby is fascinated with a mirror; a kindergartener will change cloths thrice before boarding the bus; a teenager with acne may conceptualize not leaving the house, and the supporting cosmetic, clothing, and jewelry industries are very much alive and well! The point is that it is humans to the core care about the way they look. This is not vanity at all, but a basic human trait that crosses all cultures and civilizations.

The plastic surgeon is well versed in the context of physical and emotional well being as they pertain to looks. From cleft lip repairs in infants, to pinning back protruding ears in childhood, to repairing facial wounds and softening hooked noses in early adult life, and of course to facelifts in mid and later life, our profession appreciates looks from every age and every angle.

Problem that stem from birth as well as traumatic injuries are typically immediately obvious and few would deny a need for correction. Facial aging, on the other hand, slowly erodes normalcy over time, and while everyone ages, many of the changes that occur in the skin and face cannot be consider normal at all in the same way that everyone develops osteoarthritis in their joints over time, but it is not considered normal. Aging results in loss of muscle mass, osteoporosis, atherosclerosis, hair loss, diminished infection resistance, slowing of reflexes and a host of other physical and physiological changes that are not normal. This having been said, the treatment of facial aging is the ultimate reconstructive challenge for the plastic surgeon—more complex than repairing a cleft lip, suturing a laceration, or stabilizing a fractured jaw. The principles of reconstruction and restoration create the roadmap for facial aging analysis: what do we have, and what do we need? Typically, aging patients have degradation in skin quality with thinning and loss of elasticity as well as color variegation and typically need skin care, 'microlaserpeels,' vitamin A, C, and niacin analogs, color stabilizers, and the like. Typical aging also produces volume loss in the eye region, cheeks, and lips, and patients need cheek lifts, blepharoplasty, lip volume restoration, and the like. And, aging often results in deep brow furrows and slumping neck lines correctable with brow suspension, muscle balancing, and neck tightening.

So...where does one start? As the section title indicates, aesthetic face care is lifelong and a global approach is indicated. Few would permit a baby to sit in the sun and get sunburned, but many as teenagers have 'baked' themselves repeatedly. For the northeasterners, an annual trip in the winter to Miami, and for the mid- and north

westerners, an annual homage to Arizona have been steadfast sun worship traditions. After full growth, all of us age, facing a series of challenges:

- Prevention—slowing the aging process and thwarting skin cancer formation is a lifelong goal. Boiled down to its most basic level, a hat and sunscreen form the preventative foundation here.
- Surveillance—depending on skin type (fair versus dark) and according to risk (previous skin cancer), ALL people require skin cancer surveillance. Aging surveillance comes with being human. While basal cell and squamous cell cancers occur more typically in aged skin, melanoma can strike at an early age with devastating effects if untreated. Early treatment, on the other hand, is curative
- Pre-emption—once the skin has produced a cancer or two, surveillance needs to be upgraded to pre-emption to destroy early cancers and cancer precursors. The ‘microlaserpeel’ and ablation technique forms a very tolerable and aesthetic solution here.
- Anti-aging—“holding on to what you have,” very akin to diet and exercise, is a mainstay concept in aesthetic face care. Beyond the preventative measures, proactive treatments with vitamin analogs, alpha hydroxy acids, moisturizers, and the like in an organized, prescribed program under professional supervision is the “get serious” solution to day to day aging progression.
- Rejuvenation—“getting back what you had,” is the carefully orchestrated art and science of facial aesthetic surgery. Few areas of medicine have such dramatic visual and emotional positive potential, but a choreographed life plan is essential to take necessary steps one by one to look your best year in and year out.

Timelines

A big part of sorting through the hype and hoopla of the mass media is self-education and sound, counseled decision making. To this end, figuring out where you stand is essential to figure out what you need.

Plastic surgeons participate in the treatment of each and every age group of humanity. This is unique in medicine, and affords the plastic surgeon quite a sophisticated view of the physical and mental issues confronting patients at different times in their lives. While the focus of this text is on the face, a brief overview of the plastic surgeon’s experiences seems wholly appropriate.

A basic timeline approach, based on norms and typical scenarios can help:

- Lifetime—exposure control, and pigmented area monitoring is a life long mission as far as the skin is concerned. Most believe that 80% of sun exposure and cumulative sun damage occurs before the age of 20 years. And yet, it is a relatively recent recommendation for all children to wear sunscreen when outside, especially in warmer climates. Pigmented areas rarely progress to melanoma, and yet the incidence is not zero. The bigger the area of pigmentation, the higher the risk. Plastic surgeons are often consulted because removal of pigmented areas trades cosmetic deformity and risk for scar.

- 5+ shape changes—congenital deformities are usually corrected early. From cleft lips repaired in infancy to protruding ears corrected before school starts, plastic surgeons routinely participate in this early time improving both looks and function for our youngest patients.
- 16+ noses with humps—at full maturity, certain features can overdevelop and cause significant mental hardship. The severely hooked nose comes immediately to mind. These shape issues are typically not just the subject of personal preference or ethnic taste, but devastating emotional problems for the young patient. Of course, both physical and mental maturity are required for treatment, but time and experience have shown very, very positive results.
- Teenager—acne can be difficult to treat and seldom can be completely eliminated. Plastic surgeons interested in skin care frequently take on the acne or post-acne scar patient for treatment. Strict adherence to care of the skin beginning at a young age can have lifelong dividends as well.
- 21+ breasts too big or too small—breast can be covered, and even the smallest breast produce milk for breast feeding making this aesthetic problem a spectrum of emotional and physical issues. Notwithstanding, one can immediately sympathize with the female in which only one breast develops. All of these problems are in the realm of the plastic surgeon.
- 30+ anti-aging skin care, cancer surveillance. By age 35, skin aging at the macro and microscopic level becomes nearly universal and progresses relentlessly throughout life. Strategies that are safe and effective to slow the process even effecting skin repair are a reality. Similar to all medical therapeutics, small gains are much easier to achieve than large ones, however, and early initiation of skin care combined with dedication, consistency, perseverance, and compliance are the essence of great results.
- 35+ rejuvenation—since aging occurs over time, it only makes sense that restorative maneuvers likewise keep in step with the timeline of aging. Pre-emption has only a minor role, but on the other hand, delaying until one “really, really needs it” is seldom rewarding. Rather, a thoughtful sequence, meticulously performed deploying finesse procedures first, and most importantly ‘burning no bridges’ creates the finest treatment philosophy to look your best, always. Finesse procedures with minimal scarring and maximal aesthetic impact include blepharoplasty, endoscopic brow lift, central neck tuck, lip augmentation, nose reshaping, and the like. All are accomplished on an outpatient basis with minimal if any visible scarring and ‘downtimes’ measured in days to weeks. For the skin, Microlaserpeel surface exfoliation can add significantly to the reversal of early aging changes. Skin care is a must because if one’s skin looks old, one looks old—period!
- 45+ major rejuvenation #1—in the 40’s, many will select a time for a significant rejuvenation event, in combination with skin care continuance and anti-aging maneuvers. While in years past, this often meant a face lift, at present, it is just as often a minimally invasive sequence. For example: endoscopic brow lift, eyelid skin reduction and tightening, Microlaserpeel superficial resurfacing, and neck tightening through a small incision under the chin. Results are significant and dramatic and yet the down time is only about two weeks including athletics.

While there are limitations to the procedure, it meets all the criteria of a ‘finesse’ approach by addressing all major areas of facial aging with minimal scarring and minimal risk.

- 55+ major rejuvenation #2—most patients serious about facial aesthetics will benefit greatly from a facelift somewhere between 45 and 55 and a face-lift revision between 55 and 65 years old. People will decide the exact timing best for them. Now in its third generation, the facelift is certainly the gold standard of major facial rejuvenation. Most importantly, when the time and effort are invested in this procedure, everything possible both before and after the procedure that can be done to maintain gains should be meticulously attended to and played out. Microlaserpeels, chemical micropeels, and skin care must accompany the face-lift because the lift itself does nothing to actually improve skin quality, and if skin quality is sub-optimal, the lift will degenerate more quickly and the perception of aging return prematurely.
- 65+ maintenance, touch ups, and repeat finesse procedures—in the past, many aesthetically minded but conservative individuals waited until their 65th birthday to have ‘everything’ done at once. This ‘extreme makeover’ strategy leaves most looking very aged prior to their big event and over pulled after it. Facial rejuvenation is similar to fine art restoration—it demands a carefully choreographed sequence of events performed over time to achieve superior results. One’s 7th and 8th decade should be spent touching up, rather than engaging the system to the first time. Notwithstanding, those fortunate individuals with exceptional skin quality in later years can and do accomplish success with facial rejuvenation procedures performed primarily. Looking your best, always, however is much more readily, simply, and consistently delivered when the challenge of rejuvenation is performed in stages all along the way.

Getting Started

The first step to effective and gratifying aesthetic face care is to accurately determine where you stand today. If you are just beginning to investigate what the art and science of aesthetic face care can do for you, great. If your first encounter is for a skin cancer or for severe wrinkling, sagging, and drooping, then you are well down the road with regards to your needs, and it is time to get very serious about the process. The good news is that most skin cancers are completely curable. In addition, improvement in facial aesthetics can be achieved under almost all circumstances. The reality is that the cumulative skin damage permitting a skin cancer to get started is likely to generate another and will also manifest significant aging changes as the norm.

Anti-aging strategies and skin cancer surveillance are appropriate for ALL adults, but remember that photo damage from sun exposure demands sun protection as one grows up as well. Fair skin with freckles that never tans but always burns is most likely to support cancer changes, but skin cancers can arise in all skin colors, and of course, everyone ages.

Think short term AND long term when considering aesthetic face care. In the short term, it’s all about the skin—protect it with sunscreens at all ages. Then, as you pass through

30 years, begin cleaning and exfoliating it with glycolics, moisturize the skin, and stimulate it once evidence of dermal thinning shows up with vitamin A and C analogs. Once changes become more severe, professionally administered skin care and niacin derivatives can help stay off advancements in the aging process.

In the long term, think in terms of: 1). Facial shapes, and 2) Skin quality, because these are the two features that account fully for the perception of aging. Without good skin, you WILL look old. Skin neither deteriorates nor is rejuvenated in a single day. Like diet and exercise (the MAJOR two factors of good health), the skin requires day to day attention. For most women, consistency and guidance in their routine is essential; for men, a single minute between shaving and the after shave can make all the difference.

Skin quality over the long run needs professional help to be the best it can be. Intermittent medical facials for deep cleaning, exfoliation, and dermal stimulation can be most satisfying. Annually or bi-annually, newer technologies like the Microlaserpeel have scientifically proven merit, and topical vitamin-derived growth factors applied over time sum up as the present day mainstays of great skin. Growth Hormone and other systemic modulators, most of which are naturally occurring, all have intense research interest as aging is investigated in the new millennium.

Shapes in the face change with time. Typically, deflation leads to sagging and when it is combined with skin degeneration, a person looks old. Thankfully, as we understand better each and every layer of the face from an anatomical point of view, more and more techniques, both surgical and non-surgical, are evolving to restore, correct, re-balance, and rejuvenate the face in very, very natural ways.

One's aesthetic destiny, therefore, is achieved not once in a lifetime, but day by day, year by year, and decade by decade. Aesthetic face care should be neither "ala cart" nor "all you can eat." Rather, aesthetic face care is an aesthetic life plan. It is a multi-staged, continuous dedication to limiting aging effects and restoring beautiful shapes at appropriate times. Dramatic change is traded for a precision approach to "look your best, always!" What you do first depends on where you begin, and there is something for everyone.

Face Analysis

While beauty is oft in the eye of the beholder, aging to a significant degree can be measured. Photography sets the standard and in the digital age, analysis follows. At Aesthetic Consultants, the Visia system permits lines, wrinkles, and age spots to be carefully documented and studied over time, and with treatment, results are readily apparent. UV photography combined with stereo tactic reproducibility make timeline analysis an essential part of a client's experience at the 'Face Boutique.'

Biomedic

La Roche Posay pharmaceutical now runs Biomedic which has a long standing reputation in the medical skin care community. The system of protocols making up the Biomedic treatment schemes accounts for dry skin, oily skin, acne prone skin, and environmentally

damaged skin. Combining an office based procedure called the Micropeel with prescription grade topicals, few escape real progress with this system applied under the direction of a licensed aesthetician and plastic surgeon.

Biomedic is typically packaged as six office Micropeels and products used over 6 to 12 months. The process can be continued indefinitely with periodic adjustments to the prescription protocol to accomplish the desired results. Bottom Line: Biomedic skin care is safe, effective, and adjustable, and a mainstay at the Face Boutique.

Procedures

Whether you need fillers and Botox in the office or outpatient rejuvenation at the Collier Surgery Center, safety is of supreme importance. Careful instructions, photography, and your pre-op and post-op care are carried out at the 'Face Boutique.' Procedures at the Collier Surgical Center in Naples are performed by Dr. Labs. The Center has a full time medical director, MD anesthesiologist, and experienced staff. The Center has achieved full credentialing through the Joint Commission on Health Care Organizations and has been in operation for 18 years, hosting more than 4,000 cases annually.

In summary, get started now! Regardless of age, there is something available for you to make your skin just a bit healthier and your look just a bit younger. Those who find themselves well down the timeline need more intense therapy; those early on need to pace themselves and plan in order to maximize skin health and looks over the long run. No matter where you are when you enter the system, you can improve, realizing that day to day, year to year, and decade to decade engagements are available and necessary to achieve superior results.

Credentials

J. Daniel Labs began Aesthetic Consultants in 1992 when he moved to Naples, FL from Boston. His plastic surgery fellowship was at the famed Massachusetts General Hospital where national and international colleagues remain integral to his practice. Dr. Labs served as intern, resident, chief resident, and assistant chief of the surgical service at Johns Hopkins in Baltimore, MD after receiving his BA and MD degrees from Duke University and Wake Forest Medical School, respectively.

Dr. Labs is a board certified plastic surgeon. He opened the Face Boutique in 2005 to pursue more fully his intense career interest in plastic and reconstructive surgery of the face, anti-aging medicine, and rejuvenation technologies. The center is state of the art in its perspective, techniques, and personnel.

For the Curriculum Vitae of J. Daniel Labs, MD, visit the official web site of Aesthetic Consultants of Naples at www.aestheticconsultants.net.