MiCD: Do no harm cosmetic dentistry—Part I

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The demand for cosmetic dentistry is a growing trend globally. Increased media coverage, the availability of free online information and the improved economic status of the general public has led to a dramatic increase in patients’ aesthetic expectations, desires and demands. Today, a glowing, healthy and vibrant smile is no longer the exclusive domain of the rich and famous; hence, many general practitioners are now being forced to incorporate various aesthetic and cosmetic dental treatment modalities into their daily practices to meet the growing demand of patients.

Cosmetic dentistry is a science-based art guided by the desire of the patient. Many young clinicians who plan to incorporate it into their practice are confused about what they and their patients actually wish to achieve. It is to be noted that the treatment modalities of any health care service should be aimed at the establishment of health and the conservation of the human body with its natural function and aesthetics. However, it is worrying to note that the treatment philosophy and technique adopted by many cosmetic dentists around the world tend towards macro-invasive protocols, and millions of healthy teeth are aggressively prepared each year for the sake of creating beautiful smiles.

The practice philosophy adopted by the clinic and the professional team members generally guides the overall output of the practice. Minimally invasive cosmetic dentistry (MiCD), a do no harm practice philosophy, has four fundamental components: level of care, quality of operator (dentist), protocol adopted and technology selected, which must all be re-evaluated in daily clinical practice. Adopting this holistic medical science practice philosophy is not an easy task, as it requires a change in the mindset of professionals.

In Parts I and II, I explain MiCD, do no harm cosmetic dentistry, based on my Vedic Smile concept, which I have been practising successfully in Nepal for the last 20 years, and advocating globally since 2009 as the MiCD global mission. It is to be noted that both parts are based on fundamental science (truth and available evidence), clinical experience and the common sense required in holistic dentistry, cosmetic dentistry, a global trend

The prevalence and severity of dental decay have been declining over the last decades in many developed countries and this trend is shifting towards developing countries as well. With increased media coverage, the availability of free online information, public awareness has fuelled the demand for cosmetic dentistry globally. Now, a glowing, healthy and vibrant smile is no longer the exclusive domain of the rich and famous.

The population of beauty- and oral health-conscious people is increasing every year and data from various sources shows that the coming generations of children, especially from the middle- to higher-income population, will have fewer decayed teeth and will need less complex restorative dental care as they age. These changing patterns of dental care needs will bring about a major shift in the nature of dental services from traditional restorative care to cosmetic and preventive services.

The increased market demand for smile aesthetics among patients is forcing general practitioners of today to incorporate the art and science of cosmetic dentistry into their practice. Cosmetic dentistry is not yet recognised as a separate clinical specialty like orthodontics, periodontics or paediatric dentistry. Cosmetic dentistry is synonymous with multidisciplinary dentistry, as its success and failure are related to the patient’s psychology, health, function and aesthetics. Ethical, high-standard cosmetic dentistry skill training of clinicians is essential for the increased global market of cosmetic dentistry and its promotion. It is widely seen that the treatment modalities of contemporary cosmetic dentistry are tending towards more-invasive procedures with an over-utilisation of full crowns, bridges, denture veneers, and invasive periodontal aesthetic surgery, while neglecting long-term oral health, actual aesthetic needs and the characteristics of the patient. These aggressive treatment modalities are indirectly degrading social trust in dentistry, owing to the trend of fulfilling the cosmetic demands of patients without ethical consideration and sufficient scientific background and promoting the “the more you replace, the more you earn” or “more is more” mindset in dentistry.

Changing the professional mindset of the practicing clinician is not an easy task; it is just like quitting smoking for a heavy smoker. In order to practise healthy dentistry, one must be groomed, starting from dental school education, with moral values, a high ethical standard, a positive attitude and a patient-centred practice philosophy. A student reflects the mindset of his or her teachers, and a teacher or mentor with comprehensive knowledge, clinical skills, honesty and humanity is difficult to find in today’s business-oriented dental education. I believe that knowledge
Aesthetic versus cosmetic dentistry

The words “aesthetic” and “cosmetic” are viewed as synonyms by many cosmetic dentists. However, it is necessary to understand the core difference in meaning. The Oxford dictionary defines “aesthetics” as “the branch of philosophy which deals with questions of beauty and artistic taste” and “cosmetic” as “improving only the appearances of something”.

In dentistry, “aesthetics” explains the fundamental taste of a person concerning beauty, whereas “cosmetic” deals with the superficial or external enhancement of beauty. Therefore, aesthetic dentistry falls under need-based dental service, and is generally guided by the sex, race and age (SRA factors) of the patient. However, cosmetic dentistry, which is influenced by perception, personality and desires (PPD factors), can be categorised as want, or demand-based dental service. For example, a patient’s request to replace old amalgam restorations with tooth-colored restorative materials can be considered an aesthetic requirement or demand. The request for an old woman for pearly white teeth and the ideal smile design is far more than an aesthetic requirement, and must be considered a cosmetic demand or requirement.

In my clinical practice, I divide aesthetic and cosmetic clinical cases into three different categories:

1. Preventive, or support based: treatment prevents or intercepts the diseases, defects, habits and other factors that may adversely affect the existing or the future smile aesthetics of the patient.
2. Nature-mimetic, or need based: treatment is carried out to restore or mimic the natural aesthetics, bearing the SRA factors of the patient in mind, and the treatment generally enhances the health and function of the oral tissue.
3. Cosmetic, or desire based: treatment is performed to enhance or supplement the aesthetic components of the smile; hence, the treatment outcome of cosmetic treatment may not be in harmony with the patient’s SRA factors in a nature-mimetic dentistry, and cosmetic treatment may not necessarily be beneficial to the health and function of the oral tissue.

Practice philosophy in dentistry: The mindset

The majority of dental schools around the world focus on teaching knowledge and skills in dental medicine that are based on contemporary dental science and art. Dental school education does not give due consideration to healthy dental practice philosophy according to various factors, such as the rights of the one’s practice philosophy and the domination of business rather than service-oriented dental practice in the global market. However, quality and healthy clinical practice is always a dream of a good clinician, and establishing such practice requires an unbiased vision, learning and serving attitudes, and dedication from the dentist. We must understand that science and art in dentistry have no meaning if practiced by an unethical operator, who does not respect the overall health of the patient. Any scientific advancement in technology has positive and negative sides; hence, if not applied properly, it may adversely affect the profession and may become a threat.

I believe that a clinic or treatment centre must establish its practice philosophy according to its objectives. What a clinician wants and the kind of services he or she wants to deliver to his/her patients guides the clinic. Practically, the practice philosophy in dentistry can be classified into two different categories, depending on the mindset of the operator.

Patient-centred

Clinicians with this kind of mindset generally have a do no harm dental practice (Fig. 1). Professional honesty and humanity are the fundamental principles of such a practice. Operators with this mindset enjoy sharing their clinical knowledge and skills with their professional friends and junior colleagues to promote patient-centred clinical practice in society. This group of clinicians firmly believes in the word-of-mouth approach to practice marketing and always thinks of the patient's long-term health, function and aesthetics. Clinicians practising do no harm dentistry are generally cheerful, happy and healthy in their professional life.

Financially focused

Clinicians with this kind of mindset practise a financially focused dentistry and adopt various kinds of direct marketing approaches to sell their dentistry like a commodity in the market rather than a health care service. Practitioners in this group generally achieve a secure financial position quickly, however, it is frequently seen that they develop chronic stress, burn-out syndrome, depression, frustration and professional guilt, leading to compromised health and happiness in their professional life.

Dentistry and professional stress

Dentistry has long been considered a stressful occupation. Dentists perceive dentistry as being more stressful than other occupations.1 Dentists have to deal with many significant stressors in their personal and professional lives.2,3 There is some evidence to suggest that dentists suffer a high level of occupation-related stress.3,4 Stress can result from various psychological and social factors such as work overload, lack of professional support and mentoring, lack of financial reward and recognition, risk of litigation threats and lack of professional self-esteem. As a result, the prevalence of psychosomatic complaints and mental health problems among dentists is gradually increasing.5,6 Stress can result in adverse consequences such as emotional exhaustion, mental fatigue, burnout,7,8 and the risk of developing cardiopulmonary diseases.9 Stress can affect the quality of dentistry and patient care. Therefore, it is crucial to study the prevalence and causes of stress among dentists and to adopt appropriate stress management practices in order to improve the quality of dentistry and enhance the well-being of the profession.

Three-way test: Questions for your conscience

Cosmetic dentists can make errors in practice in two ways, first owing to a lack of the required professional knowledge and skills, and second owing to a lack of professional...
In 2002, the FDI World Dental Federation endorsed the approach of minimal intervention dentistry, which has been generally based on the conservative management of carious lesions, applying the concept of “minimal interventional decay removal”. History clearly shows that, since Dr G.V. Black era to the present day, we have been applying the concept of “extension in dentistry” in the name of prevention, retention, function, aesthetic need and combating the need for caries removal. It is a clinical fact that this concept will remain the focus because extension in dentistry can be different, as its treatment modalities are guided by multifold issues such as patient’s oral hygiene (namely, behaviour and surroundings), operator factors (knowledge, skills, honesty and humanity), protocol factors (the truth, evidence, experience and common sense), technical factors (professional ethical, reliability, affordability and simplicity).

The use of science and technology requires continued learning in operators and awareness in patients; hence, the operator must use his or her professional knowledge and skills with honesty and humanity to select the least invasive procedure, protocol and technology in treatment, so that extension in dentistry is always minimal, safe and healthy.

The invasiveness of procedures selected in cosmetic dentistry depends on the level of smile defect, type of smile design, proposed treatment types and treatment complexity. MiCD uses the most conservative, least invasive and least treatment intervention possible. The level of invasiveness in cosmetic dentistry can be classified in three groups, namely non-invasive, micro-invasive, minimally invasive and invasive, and the treatment options, various treatment procedures and their biological cost for each are presented in Table 1. There is one principle that exists in various treatment modalities in MiCD: always select the least invasive procedure as the choice of treatment. Treatment procedures mentioned under non-invasive, micro-invasive and minimally invasive are used selectively in MiCD.

MiCD treatment protocol and clinical technique

Minimally invasive dentistry was developed over a decade ago by restorative experts and founded on sound evidence-based principles. In dentistry, it has focused mainly on prevention, restorative management and minimal dental intervention in caries management and not given sufficient scientific consideration for other health problems. For this reason, I developed the MiCD concept and its treatment protocol in 2006, which integrates the evidence-based minimally invasive philosophy into aesthetic dentistry. This is the concept that will help practitioners achieve optimum results in terms of health, function and aesthetics with minimum intervention treatment and optimum patient satisfaction. The MiCD concept and its treatment protocol are explained in an article titled “Minimally invasive cosmetic dentistry—Concept and treatment protocol” in the Asian Journal of Oral and Maxillofacial Surgery, the current article, I only discuss the MiCD core principles (Table 1). MiCD treatment protocol is minimal and clinical technique briefly (Fig. 2).

Cosmetic components

Minimally invasive procedures deal with the overall structure of the smile. They are classified into three broad groups: macro-aesthetics, mini-aesthetics and micro-aesthetics.

1. Macro-aesthetics; and
2. Mini-aesthetics; and

Aesthetic components and smile design parameters

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**Smile analysis and photoshop smile design technique**

**Introduction: Smile analysis and aesthetic design**

Dental facial aesthetics can be defined in three ways.

Traditionally, dental and facial aesthetics have been defined in terms of macro- and micro-elements. Macro-aesthetics encompasses the interrelationships between the face, lips, gingiva, and teeth and the perception that these relationships are pleasing. Micro-aesthetics involves the aesthetics of an individual tooth and the perception that the colour and form are pleasing.

Historically, accepted smile design concepts and smile parameters have helped to design aesthetic treatments. These specific measurements of form, colour, and tooth/aesthetic elements aid in transferring smile design information between the dentist, ceramist, and patient. Aesthetics in dentistry can encompass a broad area—known as the aesthetic zone.

Rufenacht delineated smile analysis into facial aesthetics, dental facial aesthetics, and dental aesthetics, encompassing the macro- and micro-elements described in the first definition above.2 Further classification identifies five levels of aesthetics: facial, orofacial, oral, dentogingival, and dental (Tab. I).

At the macro level, facial elements are evaluated for form and balance, with an emphasis on how they may be affected by dental treatment.4–6 During the macro-analysis, the balance of the facial thirds is examined (Fig. 1). If something appears unbalanced in any one of those zones, the face and/or smile will appear unesthetic.

**Initiating smile analysis: Evaluating facial and orofacial aesthetics**

The smile analysis/design process begins at the macro level, examining the patient’s face first, progressing to an evaluation of the individual teeth, and finally moving to material selection considerations. Multiple photographic views (e.g., facial and sagittal) facilitate this analysis.

Evaluating oral aesthetics

The dentolabial gingival relationship, which is considered the aesthetic ideal, begins by determining the ideal incisal edge position is the starting point for establishing oral aesthetics. Fig. 4: Evaluating the maxillary incisal edge position is the starting point for establishing oral aesthetics.—Fig. 1: According to the 4.2.2 rule, this patient’s smile is deficient in aesthetic elements, having only 1mm of tooth display at rest (left), minus 1mm of gingival display, and 4mm of space between the incisal edge and the lower lip (right).

**Facial aesthetics**

- Total facial form and balance

**Orofacial aesthetics**

- Maxillomandibular relationship to the face and the dental midline relationship to the face pertaining to the teeth, mouth, and gingiva

**Oral aesthetics**

- Labial, dental, gingival; the relationships of the lips to the arches, gingiva, and teeth

**Dentogingival aesthetics**

- Relationship of the gingiva to the teeth collectively and individually

**Dental aesthetics**

- Macro- and micro-aesthetics, both inter- and intra-tooth

**Table 1: Components of smile analysis and aesthetic design.**

**Fig. 4:** Gingival symmetry in relation to the central incisors, lateral incisors and canines is essential to aesthetics. Optimal aesthetics is achieved when the gingival line is relatively horizontal and symmetrical on both sides of the midline in relation to the central incisors and lateral incisors. —Fig. 5: The aesthetic ideal from the gingival scallop to the tip of the papilla is 4–5mm. —Fig. 6: Acceptable width-to-length ratios fall between 70% and 85%, with the ideal range between 75% and 85%. —Fig. 7: An acceptable starting point for central incisors is 4mm in length, with lateral incisors 3–4mm shorter than the central incisors, and canines 0.5–1mm shorter than the central incisors for an aesthetic smile display. —Fig. 8: The canines and other teeth distally located are visually perceived as occupying less space in the vertical dimension of occlusion to open the bite and enhance aesthetics when a patient presents with relatively even facial thirds (Fig. 1).

**Fig. 5:** Photoshop provides an effective and inexpensive way to design a digital smile with the desired results. Click “edit > stroke,” then use a two-pixel stroke line (with colour set to black) to trace your selection. Make sure the transparent layer is the active working layer.
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Phrased by understanding the incisal edge position relative to several different landmarks. The following questions can be used to determine the ideal incisal edge position:

- Where in the face should the maxillary incisal edges be placed?

- What is the proper tooth display, both statically and dynamically?

- What is the proper intra- and inter-tooth relationship (e.g., length and size of teeth, arch form)?

- Can the ideal position be achieved with restorative dentistry alone, or is orthodontics needed?

In order to facilitate smile evaluation based on these landmarks, the rule of 4.2:2—this refers to the amount of maxillary central display when the lips are at rest, the amount of gingival tissue revealed, and the proximity of the incisal line to the lower lip—is helpful (Fig. 3). At a time when patients perceive fuller and brighter smiles as most aesthetic, 4 mm of maxillary central incisor display while the lips are at rest may be ideal. Finally, an aesthetic smile, seeing no more than 2 mm of gingiva when the patient is talking, is ideal. Ultimately, the incisal line should come very close to and almost touch the lower lip, being no more than 2 mm away. These guidelines are somewhat subjective and should be used as a starting point for determining proper incisal edge position.

Gingival margin placement and the scalloped shape, in particular, are well discussed in the literature. As gingival heights are measured, heights relative to the central incisor, lateral incisor, and canine in an up/down/up relationship are considered aesthetic (Fig. 6). However, this may create a false perception that the lateral gingival line is incisal to the central incisor. Rather, in most aesthetic tooth relationships, the gingival line of the four incisors is approximately the same line (Fig. 6), with the lateral incisor perhaps being slightly incisal. The gingival line should be relatively parallel to the horizon for the central incisors and the lateral incisors and symmetric on each side of the midline. 4 Gingival contours (i.e., gingival scallop) should follow a radiating arch similar to the incisal line. The gingival scallop shapes the teeth and should be between 4 mm and 5 mm (Fig. 7).

Related to normal gingival form is midline placement. Although usually the first issue addressed in smile design, it is not as significant as tooth form, gingival form, tooth shape, or smile line.

Several rules can be applied when considering modifying the midline to create an aesthetic smile design:

- The midline only should be moved to establish an aesthetic intra- and inter-tooth relationship, with the two central incisors being most important.

- The midline only should be moved restoratively up to the root of the adjacent tooth. If the midline is within 4 mm of the centre of the face, it will be aesthetically pleasing.

- The midline should be vertical when the head is in the postural rest position.

Evaluating dental aesthetics

Part of evaluating dental aesthetics for smile design is choosing tooth shapes for patients based on their facial characteristics (e.g., long and dolichocephalic, or squarish and brachycephalic). When patients present with a longer face, a more rectangular tooth within the aesthetic range is appropriate. For someone with a square face, a tooth with an 80% width-to-length ratio would be more appropriate. The width-to-length ratio most often discussed in the literature is between 75% and 80%, but aesthetic smiles could demonstrate ratios between 70% and 75% or between 80% and 85% (Figs. 8–10).

The length of teeth also affects aesthetics. Maxillary central incisors are between 10 mm and 11 mm in length. According to Magne, the average length of an unworn maxillary central to the cementoenamel junction is slightly over 11 mm. The aesthetic zone for central incisor length, according to the authors, is between 10.5 mm and 12 mm, with 11 mm being a good starting point. Lateral incisors are between 1 mm and a maximum of 2 mm shorter than the central incisors, with the canines slightly shorter than the central incisors by between 0.5 mm and 1 mm (Fig. 11).

The inter-tooth relationship, or arch form, involves the golden proportion and position of tooth width. Although it is a good beginning, it does not reflect natural tooth proportions. Natural proportions demonstrate a lateral incisor between 60% and 70% of the width of the central incisor, and this is larger than the golden proportion. However, a rule guiding proportions is that the canine and all teeth distal should be perceived to occupy less visual space (Fig. 12). Another rule to help maintain proportions throughout the arch is 1:2:3:4:5. However, this may demonstrate ratios between 70% and 75% or between 80% and 85% (Figs. 8–10).

Creating a digital smile designed in Photoshop

Although there are digital smile design services available to dentists for a fee, it is possible to use Photoshop CS5 software (Adobe Systems) to create and demonstrate for patients the proposed smile design treatments.

It starts by choosing tooth grids—predesigned tooth templates in different width-to-length ratios (e.g., 75% central, 80% central)—that can be incorporated into a custom smile design based on patient characteristics. You can create as many different tooth grids as you like with different tooth proportions in the aesthetic zone. Once completed, you will not need to do this step again, since you will save the created tooth grids and use them to create a new desired outline form for the desired teeth.

Follow these recommended steps:

1. To begin creating a tooth grid, use a cheek-retracted image of an attractive smile as a basis (e.g., one with a 75% width-to-length ratio). Open the image in Photoshop and create a new clear transparent layer on top of the teeth (Fig. 13). This transparent layer will allow the image to be outlined with the work being embedded into the image.

2. Name the layer appropriately and, when prompted to identify your choice of fill, choose “no fill,” since the layer will be transparent, except for the tracing of the tooth grid.

3. To begin tracing the tooth grid, activate a selection tool, move to the selection tool in the tool palette, and select either the polygonal lasso tool or the magnetic lasso tool. In the authors’ opinion, the polygonal works best. Once activated, zoom in (Fig. 16) and trace the teeth with the lasso tool.
• To create a pencil outline of the tooth, with the transparent layer active, click on the edit mode menu bar; then, in the edit drop-down menu, select “stroke”; choose black for color. (Note: the pencil stroke pencil line (Fig. 17), which will create a perfect tracing of your selection. Click “OK” to accept the selection. Select (trace with the lasso selection tool) one tooth at a time and then stroke it (Fig. 18). Select and stroke (trace) the teeth up to the second premolar (the first molar is acceptable) (Fig. 19).)

The image should be sized now for easy future use in a smile design. In the adjustments, it is best to adjust the size of the image to a height of 720 pixels (Fig. 20) by opening up the image size menu and selecting 720 pixels for the height. The width will adjust proportionately.

At this time, the tooth grid tracing is completed without the image of the teeth, by double-clicking on the layer of the tooth image. A dialog box reading “no layer” will appear; click “OK.” This process unlocks the layer of the teeth so it can be resized. Drag the layer of the teeth to the trash, leaving only the layer with the tracing of the teeth (Fig. 21). In the file menu, click “save as” and choose “.psd” (Photoshop) as the file type. This will preserve the transparency. You do not want to save it as JPEG, since this format will create a white background around the tracing. Name the file appropriately (e.g., .5% W/L central).

By tracing several patients’ teeth that have tooth size and proportion in the aesthetic zone and saving them, you can create a library of tooth grids to custom design new teeth for your patients to provide what patients demand: a smile that delivers aesthetically pleasing outcomes and the clinical masters magazine. A complete list of references is available from the publisher.

Editorial note: A complete list of references is available from the publisher.

The step by step process is to create a digital conversion of the actual tooth length and width, and then digitally determine the proposed new length and proportion of the tooth.

Determining digital tooth size

To determine digital tooth size, follow these steps:

• Create a conversion factor by dividing the proposed length (developed from the smile analysis) by the existing length of the tooth.

The patient’s tooth can be measured in the mouth or on the cast (Fig. 22). If the length measures 8.5 mm but needs to be at 11 mm for an aesthetic smile, divide by 8.5. The conversion factor (1.29), a 29% digital increase or lengthwise.

• Open the full-arch cheek-retracted view in Photoshop and zoom in on the central incisor.

Select the eyedropper palette. A new menu will appear. Select the ruler tool (Fig. 23).

• Click and drag the ruler tool from the top to the bottom of the tooth to generate a vertical number in this case 170 pixels (Fig. 24). Multiply the number of pixels by the conversion factor. In this case, 170 x 1.29 = 219 pixels digitally equivalent to 11 mm (Fig. 25).

Determine the digital tooth width using the same formula (Fig. 18).

• Create a new layer, leave it transparent, and mark the measurement with the pencil tool (Fig. 26).

Applying a new proposed tooth form

Next, follow these steps:

• After performing the smile analysis and digital measurements, choose a custom tooth grid appropriate for the patient. Select a tooth grid based on the width-to-length ratio of the patient planned with (e.g., 80/70/90 or 80/65/80). Open the image of the chosen tooth grid in Photoshop and drag the grid on to the image of the mouth to be smile designed (Fig. 27).

• If the shape or length is deemed inappropriate, press the command button (control button for PCs) and “z” to delete and select a suitable choice.

• Depending on the original image size, the tooth grid may be proportionally too big or too small. To enlarge or shrink the tooth grid created (with the layer activated), press command (or control) and “t” to bring up the free transform function. While holding the shift key (holding the shift key allows you to transform the object proportionally), click and drag a corner left or right to expand or contract the custom tooth grid.

• Adjust the size of the grid so that the outlines of the central incisors have the new proposed length. Move the grid as necessary using the move tool so that the incisal edge of the tooth grid lines up with the new proposed length (Fig. 28).

• Areas of the grid can be individually altered using the liquid tool (Fig. 29).

Digital creating new aesthetic teeth

Next, follow these suggested steps:

• With the new tooth grid layer and the magic wand tool both activated, click on each tooth to select all of the teeth in the grid (Fig. 30).

• Expand the selection by two pixels in the expand menu; click “select > modify > expand” (Fig. 31). Note that the selection better approximates the grid. You can expand the selection or contract as necessary using the same menu.

• Activate the layer of the teeth (cheek-retracted view) by clicking on it (Fig. 32).

• Next, activate the liquid filter (you will see a red mask around the edges of the proposed teeth). The mask creates a digital limit that the teeth cannot be altered beyond. This is similar to creating a mask with tape for painting a shape (Fig. 33).

The following steps are recommended next:

• Select the whitening tool (dodge tool) to brighten the teeth. In the dodge tool palate, click “midtones” and set the exposure to approximately 20%. Click on the areas of the tooth you want brightened (Figs. 16 & 17).

• Alternatively, with the teeth selected, you can use the brightness adjustment in the brightness/contrast menu; click “image > adjustments > brightness/contrast”.

Performing the changes on the current state of the digital smile design to his/her original teeth before agreeing to treatment.

Create a copy

To save the information you have created for presentation to the patient, follow these tips:

• Go to “file” and select “save as.”

• When the menu appears, click on the “copy” box.

• Name the file at that step.

• Save it as a JPEG file type.

• Designate where you want it saved.

• Click “save”.

A file of the current state of the image will be created in the designated area. You can now continue working on the image and save again as any point you choose.

Conclusion

Knowledge of smile design, coupled with new and innovative dental technologies, allows dentists to diagnose, plan, create, and deliver aesthetically pleasing new smiles. Simultaneously, digital dentistry is enabling dentists to provide what patients demand: quick, comfortable, and predictable dental restorations that satisfy their aesthetic needs.
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