

## PHOTOGRAPHIC CONSIDERATIONS IN ESTHETIC DENTISTRY

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**ABSTRACT.** Photography in dental technology aimed at improving in terms of quality and number of the information necessary collaboration between the dentist and the dental technician to create a prosthetic with esthetic result. Photos are an integral part of diagnosis and also keep proof procedures in aesthetic dental restorations. Photographs provide documentation not only in terms of dental aesthetics but also the presentation of the case, or in the case of specialized publications.

**KEYWORDS.** Photos, cosmetic dentistry, prosthetic, medical documentation.

### INTRODUCTION

Cameras are of two types: fixed and active. Professional fixed versions are cameras that use film or print the image on a digital electronic. If using film cameras there are many video formats, each corresponding to a different type of format camera.

Typical sizes are 4, 5, 2 1/4 square, 35mm and 126 and the new format is an advanced and modified 35mm format. 35mm format is the most popular dental photography, because enlargement compact accessories available, easy use, image quality.

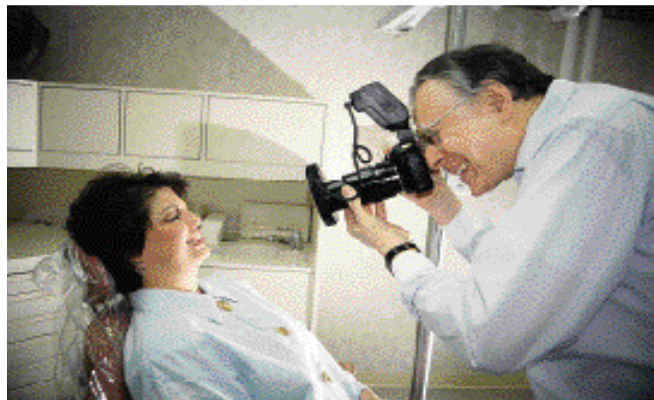


Figure 1. Professional active cameras versions

Digital photography:

#### 1. The advantages of digital photography.

Dental digital photography brings a number of benefits (Sandler and Murray, 2001):

- A quick positioning;
- No film or film processing costs
- Images do not age;
- Dust and scratches do not damage the image:
- white balance built;
- checking the accuracy of the exposure;
- Immediate viewing;
- Cheap storage;
- Easy recovery;
- Easy multiplication;
- Fast transmission.

#### 2. Disadvantages of digital photography

Digital camera and recording environment presents a number of disadvantages being sensitive to:

- talc gloves can infiltrate camera or lens;
- surface disinfectant sprays, of which the gas can alter the electronic circuits;
- disinfectant wipes are aggressive for cleaning the front lens of the objective
- when changing objectives, digital cameras with interchangeable lenses hazard deposition of impurities on the surface of the sensor.
- sometimes unfortunately the record can not be accessed so it is recommended to save the backup data media (CDs, memory-stik).

**Lenses:** There are a wide variety of lenses for 35mm cameras: it is possible to limit the number of lenses especially if you take into account a number of

additional factors such as focal length, working distance, perspective. There are special lenses for details necessary because ordinary lenses can not cope. Macro lens (detail), allowing proximity to the object a few inches and the picture quality is superior.

**Shooting conditions- lighting:**

- The amount of light, quality and heat, are important criteria for choosing the type of light used.
- Theoretically, almost any light source can be used for capturing.
- Basically but the choice is between continuous light and light discontinuous type flash.
- The most appropriate is using Flash, which offers light quality and produces no heat.

The film is multilayered antiscratch. Film categories: there are 4 categories:

- black and white negatives,
- black and white positive,
- negative and
- positive color.

Dental photography often uses the color positive, black and white are used when following the highlighting of contrasts.

Storing film: when using 35mm, can be stored in plastic sheets 24 or 36 tabs. To store an unexposed film a longer period of time is indicated a cool room without light.

Color quality- the accuracy of color reproduction is

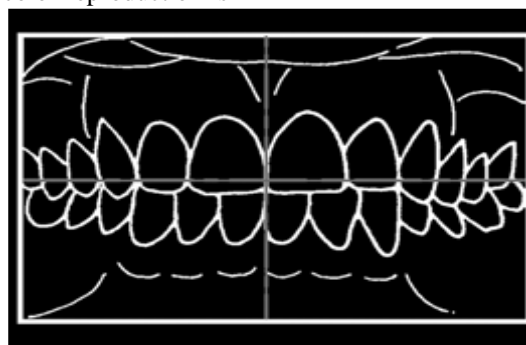


Figure 2. Front labyrinth image scheme (M.V. Constantinescu\*, Doina Constantinescu\*\*, Elena Podoleanu\*\*\*, F.E. Constantinescu-Fotografia digitală în practica medicinei dentare- Stoma.1-2 , 2006)

achieved only if it is an identical match between the film and the spectral sensitivity distribution of the light source. The filmmakers have done film types for different types of light source: for tungsten to fluorescent light and natural light of day.

If there is a discrepancy between the type of light and film photography is not balanced coloring.

Contrasts- it is very important to choose the background of the person or objects photographed. Usually choose neutral backgrounds blue medium gray, but must consider the color of the objects or clothing, skin color of the patient.

Thanks to modern computer techniques can make changes regarding brightness contrasts, change the background but they are significantly lower and the choice of using a photographic technique right from the start.

Printing can be immediate (Polaroid), the classic way by developing the film or direct transfer of digital media on the paper depending on the case.

**MATERIAL AND METHODS**

We conducted an extensive photographic imaging study in 11 patients. We illustrate in the following different aspects and phases we considered important in 5 cases and photographic data correlation between the dental office and dental laboratory in one case we considered representative for this study.

Face-Profile photos are usually made for recording the effects of dental treatment in the whole face. In this sense it is necessary to have a camera that is able to focus just to record all the wrinkles, folds in the sides before performing aesthetic dental treatment. The patient must be registered and smile, photographs with the patient when not smiling and facial muscles relaxed.



Figure 3. Photos of smiling 1th patient needed but not necessarily the incised lines to highlight in the photos.

2. Occlusal photos to view the dental status of this standard:



Figure 4. Occlusal photos of 2th patient

The best results are obtained using photographic mirrors, glass or metal, sterilized.

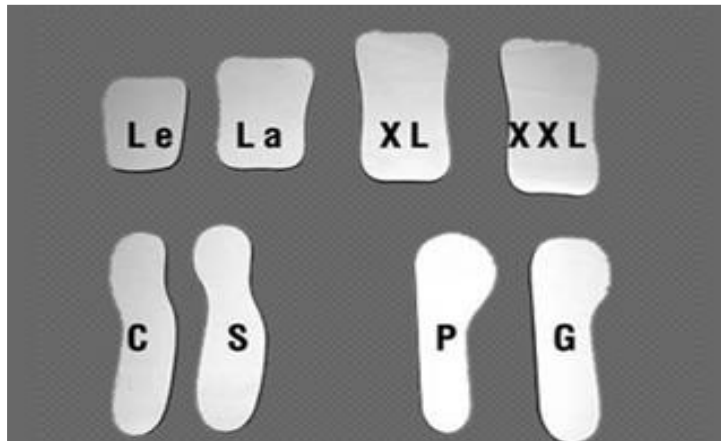


Figure 5. Photographics mirrors (PTJ International)

3. Special Photos include details such as photos lingual / palatal region of the inferior / higher frontal group.



Figure 6. Photos lingual region of the inferior frontal group of the 3th patient

4. Parafunctional photos at patients suffering from bruxism .



Figure 7. Shooting abrasive dental surfaces 4<sup>th</sup> patient.

5. Photos before and post treatment follow surrounding tissue healing and adaptation prosthetic work done correctly.



Figure 8 . Before and posttreatment 5th patient

6. Shooting of prosthetic parts, devices, appliances will help the patient to better understand what the treatment options that I suggested him.





Figure 9. Shooting of prosthetic parts.

## CONCLUSIONS

Hyperdimensional aspect of a photo gives the doctor and technician a new way of viewing, sometimes a different interpretation from the three dimensions that we perceive with the naked eye in the oral cavity of the patient. Such tooth silhouette is more easily seen and can be detected by direct visualization features that are not detected in the first phase.

Getting a better result, ideal as possible in aesthetic dentistry requires research in detail tooth shape, its color, which is easily obtained based on the information given by a picture (two-dimensional plane).

Photo is proof of the case itself before starting remedial procedure, which involves shooting from all angles before but very important, and the completion of prosthetic restorative procedure, because there are few patients remember exactly their appearance before cosmetic surgery.

In literature and in practice all demonstrated that the vast majority of failures dental prosthetics aesthetically due to insufficient communication team of patient, physician and dental technician.

Photograph goal is to eliminate misconceptions that and could make members of this team and store the information on each case.

Our final objective is to give the patient an ideal

prosthetic or adjusting the particular case.

Although it requires more time and patience from both the physician and the patient's dental technician, and this time it proved the phrase "a picture is worth 1000 words".

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