

PRODUCTS IN PRACTICE

PROTOCOL

Ó

EFFICIENCY MARKETING I USE THAT ROI INFECTION CONTROL

Excellence in photography

Capturing images for treatment planning and documentation is easy and efficient with the innovative EyeSpecial CII.

[By Shannon Pace Brinker CDA, CDD and Robert Lowe, DDS]



SHANNON PACE BRINKER (LEFT) AND DR. ROBERT LOWE

WHAT IS THE FIRST THING that

comes to mind when asked to name the product that has revolutionized the way dentistry is performed? Many dental professionals may list a material such as a direct composite resin, or a technology such as in-office CAD/CAM. Few would probably list something as commonplace as a camera.

Yet cameras and photography have transformed dentistry from a passive practice to an active art, one in which collaboration and patient education play important roles. Photography has enhanced communication between dentists and laboratory technicians, eliminating unclear or vague directives and leaving little room for misinterpretation of desired treatment planning and outcomes.

Dental photography has also aided in patient education and communication. Now, clinicians can show their patients the problems they may be experiencing or what a proposed treatment plan would mean for their smiles and overall oral health. With such definitive visual aids, patient acceptance of suggested treatments may be higher, simultaneously ensuring patients' dental needs are met and increasing dental practice productivity.



Photography has also revolutionized teaching and lecturing in the field of dentistry. While there are many camera models available to dental professionals, they generally fall into two categories, each of which has its advantages and disadvantages. Both have traditionally been a very expensive investment for dental practices.

Point and shoot cameras are simple and easy to use. They are generally lightweight and small in size, and are typically less expensive than the other type of camera available, the single lens reflex camera. However, point and shoot cameras are limited by fixed settings, a slower shutter speed, and focusing capabilities that produce lower quality images.

Single lens reflex cameras, on the other hand, produce higher quality images due to their high-quality lenses and lighting options. They are usually fully customizable, allowing the user to dictate the manner in which they are used. However, these cameras are typically more expensive. They require a working knowledge of all the customizable settings and photography training. They are also heavier due to their extra flash capabilities and macro lenses.

What you need in a camera

While both types of cameras described are adequate solutions to the issues in dentistry that require the use of photography, they do not fully address all the conditions and needs that dental professionals require in a camera. The ideal dental camera should be customizable, with settings specific for various stages of treatment planning or potential outcomes. It must be durable and designed for proper infection control protocols that are exclusive to dentistry. It also needs to be compatible and/or designed with applicable dental software that can be used by the dental office and laboratory.

The ideal dental camera must also be appropriate for use by multiple types of users. Dentists should be able to use it in their practices to demonstrate current and potential views of patients' dentition. Orthodontists should be able to use it to track the progress their patients are making between treatments. Laboratory technicians should find it helpful in designing the perfect restorations per patient and dentist requests.

EyeSpecial CII

Thankfully, the ideal dental camera is now available. The EyeSpecial CII (Shofu Dental Corp.) makes excellence in dental photography easy to achieve. This smart, intuitive digital camera has been designed with the everyday applications of dentistry in mind. Its sophisticated features make sharing information and communication more streamlined and efficient than ever.

A lightweight device that is easy to hold in one hand, the camera has a 49 mm close-up lens that measures only 2 inches in diameter to capture images in extensive detail. Its large LCD screen makes viewing images simple, and its touchscreen capabilities enhance the efficiency of the overall process. The screen is pressure sensitive and can be operated with or without gloves. It has a built-in dual flash that does not require any changes or modifications when taking pictures, eliminating the potential for less than perfect images to be captured.

The camera also possesses functions that allow the user to edit and draw on images to show areas of focus. Images can be rotated and enhanced to show patients and educate them on the current state of their oral health, or what a proposed treatment would alter. Any of these images can be instantly uploaded onto a computer, tablet, or smartphone using the Eye-Fi card, perfect for showing progress throughout a treatment plan.

The camera is extremely durable and designed to withstand the rigorous infection control protocols that dental offices employ after use. Also, images taken can be automatically sorted and imported into individual folders for each patient.

Capabilities for dentistry

This camera produces high-quality images that are enhanced by infrared, UV, and anti-reflection filters. It provides an excellent depth of field range, with fast autofocusing and anti-shake capabilities that ensure clear images with each use. It employs a spot focus and cropping grid lines that assure the user of a concise photograph with the first use. It is extremely user-friendly, with no background knowledge of photography required. It is also extremely lightweight, weighing only one pound.

The EyeSpecial CII is neither a traditional point and shoot camera

PROTOCOL

PRODUCTS IN **PRACTICE**

nor a single lens reflex camera, but an innovative hybrid that combines the best of both models for an ideal dental camera. Specifically designed for dental professionals, the camera is also equipped with several different modes that can be used for specific dental applications.

Standard mode will most likely be used most frequently. Suitable for general images of the patient's dentition, this mode can be used with normal operatory lighting. Ideal distance from the patient is approximately 9.4 inches, and the patient should be sitting up in a chair or standing, preferably with cheek retractors in place. A variety of images can be taken in this mode, including reposing, smile, and profile facial images, smile and retracted anterior images, left and right buccal images, and upper/ lower occlusal images.

Surgery mode is designed for intraoral photography from a greater distance, at least 15.7 inches, to remain clear of the dentist's area of operation. The settings for this mode are similar to the standard mode, but it has increased zoom capabilities to ensure the necessary intricate details of the patient's mouth are properly captured before invasive surgical procedures.

Mirror mode can be used for traditional intraoral photography that requires use of a mirror; thus, the image taken can also be reversed. The original image and its respective mirror image can both be retained in the camera's memory, and either image can be rotated horizontally or vertically as



[**Figs. 1-8**] Whitening mode (Fig. 1). Tele-Macro Mode (Fig. 2). Built in dental grid lines/spot focus (Fig. 3). Edit/Draw function (Fig. 4). Mirror Mode can flip images (Fig. 5). Clear aligner series photos (Fig. 6). Surgery Mode (Fig. 7). 8 dental shooting modes: one-touch operation (Fig. 8).

needed. Photographs in this mode are automatically taken with a "low glare" setting to reduce reflected light. This mode is ideal for upper and lower occlusal images.

Face mode is used for capturing facial views or upper torso photos. The patient should be standing against a plain background, and the ideal distance is 66.9 inches. This mode captures images in reposing, smile, and profile facial views, but can be used for more than just clinical applications. For example, images taken in this mode can be used for the patient's chart, or for "before and after" photos that demonstrate treatment progress.

Low-glare mode is designed for

photographing the details of the patient's anterior teeth, in addition to photographing working models and indirect restorations. The flash adjusts to reduce glare from any reflective objects.

Tele-Macro mode should be selected when higher magnification photos of anterior teeth, working models, and indirect restorations are needed. The Macro Lens should be attached when using this mode, and the ideal distance away from the patient is 4.7 inches. This mode requires the camera's only attachment, which is small and screws on easily.

Isolate shade mode is used to identify and match the optimal

shade for the patient's dentition. The gingival shades are removed, and visual acuity is greatly improved. The patient should have cheek retractors in place when being photographed in this mode. This mode is especially useful when used with the SureFile photo management software to keep records of the patient's information for treatment planning.

Whitening mode is perhaps the most innovative and beneficial of all the camera's features. It enables dental professionals to perform a shade comparison of the patient's dentition before and after whitening. This allows a patient to see their teeth after a proposed whitening treatment and is an excellent selling point to garner case acceptance. Photographing in this mode is highly intuitive and does not require extensive technical knowledge or familiarity with supplementary computer software to show patients a realistic image of their new smile.

Similar to the low-glare mode but with lower light intensity, this mode should be used when photographing patients sitting with cheek retractors in place, approximately 5.5 inches away. This mode reduces glare and emphasizes the surface texture and shade of the patient's teeth, allowing the dentist to more accurately determine the proper level of whitening treatment for a patient, since decisions are not influenced by unnatural lighting, glares, or other lighting issues experienced with traditional cameras.

Conclusion

Superior and simplified photographic equipment with cutting-edge and innovative abilities are a need, not a want, in today's dental practices. The EyeSpecial CII is revolutionizing the way photography is used in dental practices and laboratories. Its intuitive design and features contribute to ease-ofuse, accuracy, and precision when capturing images for treatment planning and documentation.

