10 top tips on clinical digital photography

Drs David Bloom and Jay Padayachy offers tips on improving your knowledge of digital photography and how it is beneficial to both practice and patients

1. Invest in a digital SLR camera rather than a prosumer-type point and shoot. Whilst the latter are fine for full face pictures and possibly natural smile views, they do not have the depth of field for close-up photography. The image sensor should be a minimum of six megapixels to ensure good quality images with no pixilation, even when they are blown up to the size of a 17" computer monitor. For dental photography, the best two cameras are currently made by Nikon and Canon as they have sensors which best reflect the type of images we need to demonstrate our work (see www.bacd.com for current recommendations). The newer models are also able to take the views in a raw and jpeg format, which is important if you are considering entering on the BACD accreditation journey, whereas with older cameras you will need to take the picture in raw and convert to jpeg. (Fig 1)

2. Use a dedicated macro lens for the reason described. Use a 105mm macro lens and not a 60mm one as again the required depth of field will not be achieved. Depth of field ensures that the entire image is in focus. So, when taking a 2:1 retracted view, it is equally important to have the incisors as well as the pre-molar teeth in focus. (Fig 1)

3. Use a separate dedicated flash source, ie such as a ring flash or hot shoes (twin light source). A ring flash is suitable for most dental uses, however laboratories may find that hot shoes provide the best images of lab work outside the mouth to avoid the casting of shadows.

   Ideally, the lens and ring flash should be manufactured by the same company ie if using a Canon ring flash. (Fig 1)

4. Cheek retractors are essential for all intra oral shots including occlusal views. Whilst one-piece ones are available, we prefer individual “C” shaped retractors and not ‘fish eye’ shaped ones. (Fig 2)

5. Use high quality mirrors for occlusal or buccal views. These must be treated with care as they scratch very easily. To prevent fogging you can hold it over a bowl of steam before use, or puff air from the 3 in 1 syringe...
to delay the mirror whilst it is in the patient's mouth. (Figs 5&6)

A contrast will help high contrast incisal effects, especially in a close up 1:1 shot. These again are prone to scratching and are not inexpensive. An alternative can be made cheaply by cutting out black card from stationery suppliers into the correct shape - then they have the advantage of being disposable. For something more robust, shaped hard black plastic can be used. (Figs 5&6)

Consistency of the views (how the picture is framed) is important if showing before and after images so that like for like can be compared. The 12 BACD accreditation shots (some examples shown in Figs 7 and 8) are a good starting point and we take these views together with two further views (lips at rest and retracted 2:1 of teeth in occlusion) for all new patients as a matter of course. They also provide an invaluable medico-legal record of the patient's mouth when they first attended. Other views would of course be taken for orthodontic purposes, to highlight dental techniques or for laboratory communication (Fig 9) or for medico-legal records i.e. during whitening. (Fig 10)

Attend a hands-on photographic course to hone your skills and make digital photography an effortless task. There is a steep learning curve but once mastered, the 14 standard views we take can be done in as little as three minutes.

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HANDS-ON CLINICAL PHOTOGRAPHY
Speaker: Peter Gordon
LDSRCs; MF GDP(UK) Joint Author of Dental Photography and Honorary Clinical Teacher UCL Eastman Dental Hospital in conjunction with Dr David Bloom BDS and Dr Jay Padayachy BDS
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About the authors
David Bloom is a graduate of the Newcastle-upon-Tyne Dental School, and has been a principal at Senova Dental Studios since 1998. He is a past president of the British Academy of Cosmetic Dentistry (2003/2004), the UK’s largest national dental society. He is also a member of the BACD, and a clinical director of Co-op Seminars, instructing and lecturing on all aspects of cosmetic dentistry in the UK and the U.S. (www.coop8.com).
Jay Padayachy is a graduate of the Newcastle-upon-Tyne Dental school, and has been a principal at Senova Dental Studios since 1998. He’s a full member of the BACD and is on the board of directors. He is also a clinical director for Co-op Seminars.