the art of digital dental photography

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contact information

www.photographyfordentists.com
www.cosmeticdentalseminars.org
www.bloomsburydental.co.uk
1. inspire those who are not using photography
2. achieve predictable, high quality results
what is good photography?

Everything clear

Focus

Exposure
- not too light
- not too dark

Framing
- area of interest
- and nothing else
size of the hole letting the light in

measurement is the f-Stop f2.8-32
**APERTURE**

\[ f/2.8 = \text{big hole = more light} < \text{depth of field} \]

\[ f/22 = \text{small hole = less light} > \text{depth of field} \]
EXPOSURE

- **Aperture**
  - require min f22 for depth of field

- **Time**
  - camera shake/ patient movement
  - 1/focal length rule
  - 1/100 sec

- **Light**
  - flash

Theory
set time to 1/200 second

set aperture to f22 - f32 for maximum depth of field

set camera to fully manual
the size of the subject relative to the image on the film (35mm) - set on lens barrel

MAGNIFICATION RATIOS

1:2

1:1

2:1

object

image

10mm 10mm 10mm

5mm 10mm 20mm

1:1

2:1
<table>
<thead>
<tr>
<th>Magnification</th>
<th>Magnification</th>
<th>Description</th>
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</thead>
<tbody>
<tr>
<td>1:2</td>
<td>1:3</td>
<td>set of teeth</td>
</tr>
<tr>
<td>1:1</td>
<td>1:15</td>
<td>4 front teeth</td>
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Film picture is cropped therefore magnification ratio changes.
<table>
<thead>
<tr>
<th>Component</th>
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<tr>
<td>Canon 1100D (12.2 MP)</td>
<td>319</td>
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<tr>
<td>Macro lens EF 100mm f2.8</td>
<td>439</td>
</tr>
<tr>
<td>Ringflash MR-14EX</td>
<td>523</td>
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quotes obtained on 1/11/11
WHERE TO BUY FROM?

- Amazon.com
- The Dental Directory
- Henry Schein
- Orthodontics db
REPRODUCIBILITY IS THE KEY

- magnification ratio
- direction of photograph
- framing
- exposure

before

after
1. portrait

- plain background
- correct framing
- focus on eyes/ teeth
- use built in flash or ringflash
- use anti-red eye/ bounce flash or correct if needed with software
essential for any cosmetic work

make sure patient displays full smile to assess gingival display

focus on canine to ensure maximum depth of field

AACD VIEWS

2. smile

vertical: midline of teeth or face

horizontal: occlusal plane or horizon

f22 or >
focus on upper right lateral

3. smile (right)

AACD VIEWS

lateral view
non retracted
1:2

f22 or >
4. smile (left)

- focus on upper left lateral

AACD VIEWS

lateral view  non retracted  1:2

f22 or >
5. anterior retracted

- Teeth slightly apart to show lower incisal edges
- Focus on canine to ensure maximum depth of field

AACD VIEWS
6. right retracted

- Teeth slightly apart to show lower incisal edges
- Focus on upper right lateral
7. Left retracted

- Teeth slightly apart to show lower incisal edges
- Focus on upper left lateral

AACD VIEWS

1:2

Lateral view

Retracted

f22 or >
8. close up (upper incisors)

- focus on the contact point of central incisors
- contraster optional
9. close up (upper right)

- focus on upper right lateral
- contraster optional

f22 or >
10. close up (upper left)

- focus on upper left lateral
- contraster optional

f22 or >
MIRROR VIEWS
11. upper occlusal

- Remember to warm mirror or use 3:1 air to prevent fogging.

**Vertical:** midline of teeth or face

**Horizontal:** imaginary line through 4’s

Focus

Oclusal view

Retracted mirror

1:2

f22 or >
12. lower occlusal

- Remember to warm mirror or use 3:1 air to prevent fogging
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18. COPYING RADIOGRAPHS

- copy to other dentists/specialists/hospitals
- show on monitor to patient
- set camera to aperture priority (usually Av mode)
- set F-stop of 5.6
- focus manually
- use lightbox
- use daylight (tape x-ray to window)
the new manual of PHOTOGRAPHY
JOHN HEDGECOE

£25
Reality
the techniques

www.reality.com
$70
Welcome

“The aim of the lectures and hands on sessions is to show the theory, practice, and many uses of photography so that dentists will be inspired to incorporate it into their daily practice.”

Dr Ian Cline, Dental Surgeon

free downloads, links and further information
9 day Aesthetic Dentistry Certificate course starts April 2013

www.cosmeticdentALSEMINARS.org