

CLINICAL PHOTOGRAPHY IN PLASTIC SURGERY?

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What is Photography?

Photography is an art of using the camera to record stories and events.

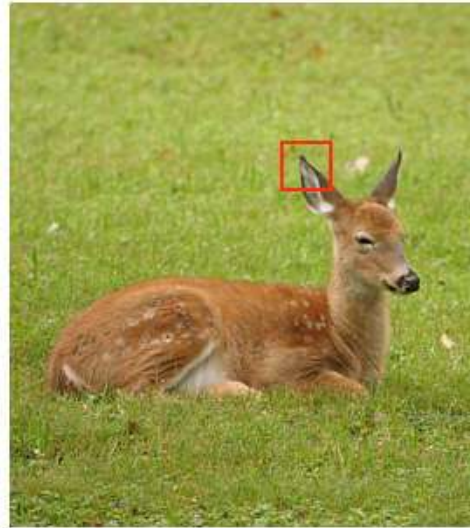
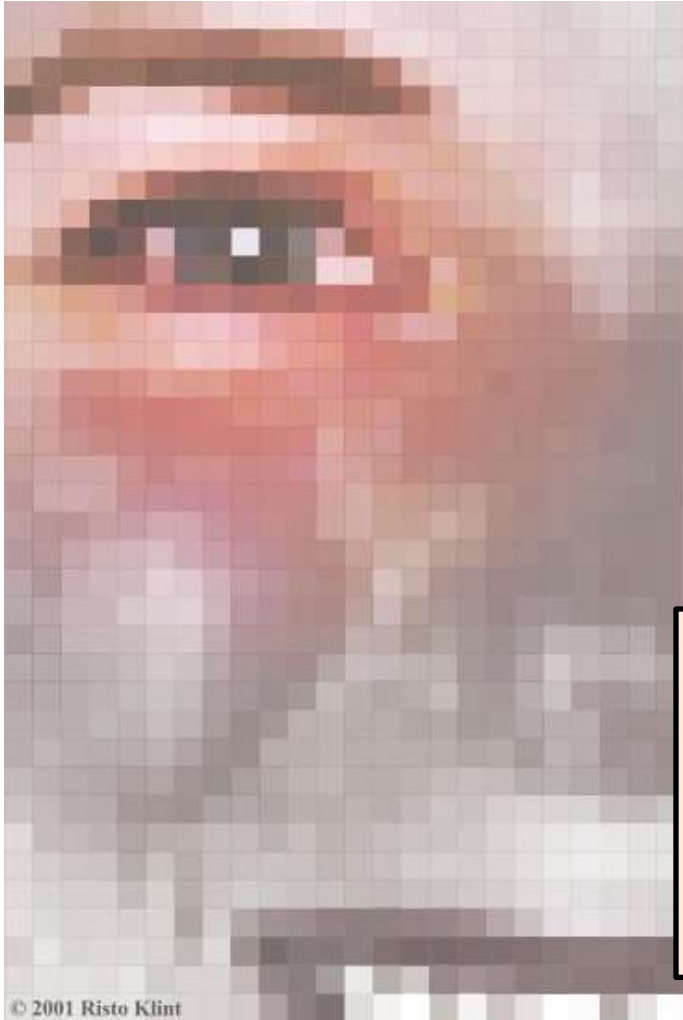
of m. l. r. b.

Basics of digital Photography

- *Pixels* (***picture elements***) are the small sections of color and/or tone that together form a digital image.
- Pixels form an image like pieces of a mosaic. A digital image is a grid of pixels.
- When the pixels are viewed together in proper registration, the image is formed.
- When there are enough pixels and they are small enough so as not to be individually discernible, the digital image can achieve photo quality.
- Increased magnification of any digital image will eventually show the individual pixels.

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Digital Photography is based on the Pixel - Picture Element



The more pixels per square in the better the quality of the image – it is that simple

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MegaPixels

- Megapixel—A unit equal to **one million pixels**.
- The higher the resolution, the more pixels in an image and therefore the greater the image quality.
- An image file that is 1 **megapixel** (MP) can make a photo realistic print of **5 x 7 inches**; a **2 MP** file can make an **8 x 10-inch** print; a **3 MP** file can make an **11 x 14-inch** print.

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Medical Photography –uses

- **Medicolegal Purposes**
- **Medical Teaching**
- **Medical Presentations**
- **For Publishing**
- **Documenting Surgical Procedures**
- **Documenting Personal Injury Litigation**

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Photography in Plastic Surgery

—uses

- Recording and Documenting the pre-op state of the patient.

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History of Medical Photography

Medical photography dates back to mid 19th century.

In 1845, a surgeon, *Gordon Buck*, incorporated a preoperative photography of his patient into an article.

In 1852, pre and postoperative photos of a patient was published by an orthopedist *Dr. Berhrend*.

In 1863, *James Balossa*, a romanian *plastic* surgeon, published a book containing 7 photographs of a two-stage nasal reconstruction procedure.

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Why Do we need Standards?

Standardized photographs ensure that comparison of pre-op and post-op images will yield meaningful observations.

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How to maintain Standards?

When capturing post-operative photos, it is a good idea to have the patient's pre-op images on hand as well.

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What Standards ... ?

All clinical photographs should be taken using the same equipment and procedures.

Camera, lighting, magnification, framing, patient positioning and patient preparation all need to be consistent.

Standard photography has to document the pertinent anatomy of the patient without distortion or distraction.

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Conditions of A Standard Photo

- **Standardization of lighting and background**
- **Consistent camera-to-subject distances**
- **Proper Pose (patient positioning)**
- **Standardized positioning of the camera (vertical or horizontal view)**

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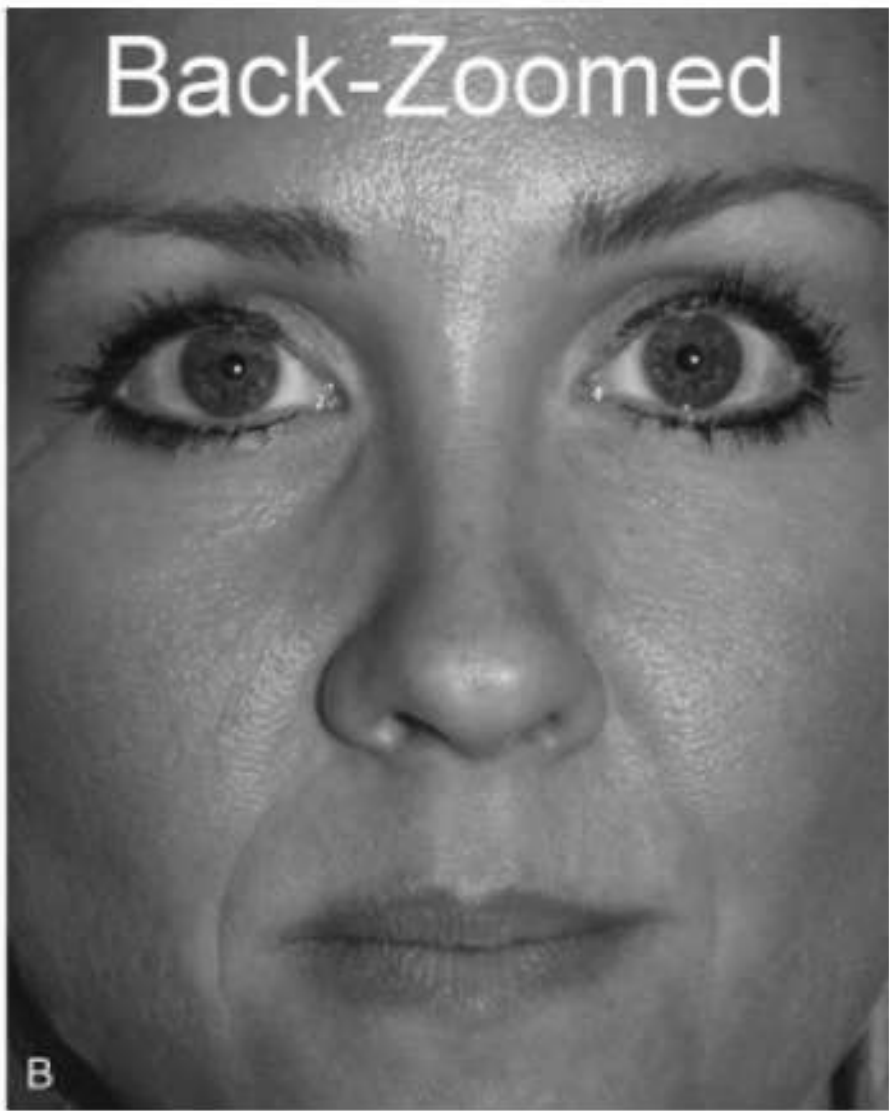
What Standards?

- One of the goals of standardized photography is to maintain consistent magnification from photo to photo.
- For a given camera system, this may be achieved by controlling the distance from camera to patient. However, the distance required for a particular magnification is not the same for all camera systems - it is affected by the size of the imaging sensor and the focal length of the lens.

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of neck



of m/10/12

Pearls of Clinical Photography

- **Take many Pictures.**
- **Pay attention to jewelry, glasses, and makeup.**
- **Always takes a series of preoperative images with the patient in full makeup and without makeup immediately preoperatively.**

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Pearls of Clinical Photography

A step stool is also necessary, as the patient may be considerable taller or shorter than the photographer.

No smiling, patient should look directly into the camera in front views otherwise a fixed target is used.

Dr. M. R. B.

Pearls of Clinical Photography

If the patient had glasses in the preoperative image, they should have them in the postoperative image.

Jewelry that is large, obtrusive, or distracting should be removed.

When taking facial views, a collarless shirt or blouse is preferable.

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of neck

Some Basic Shooting Tips

Don't always shoot standing up (eye level)

Stay away from busy / chaotic backgrounds

Move in close to your subject.

Ask Yourself what is my main subject before shooting.

Watch the light - Light is the key to great photos

Use flash Outdoors (Opens Shadows)

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Lighting

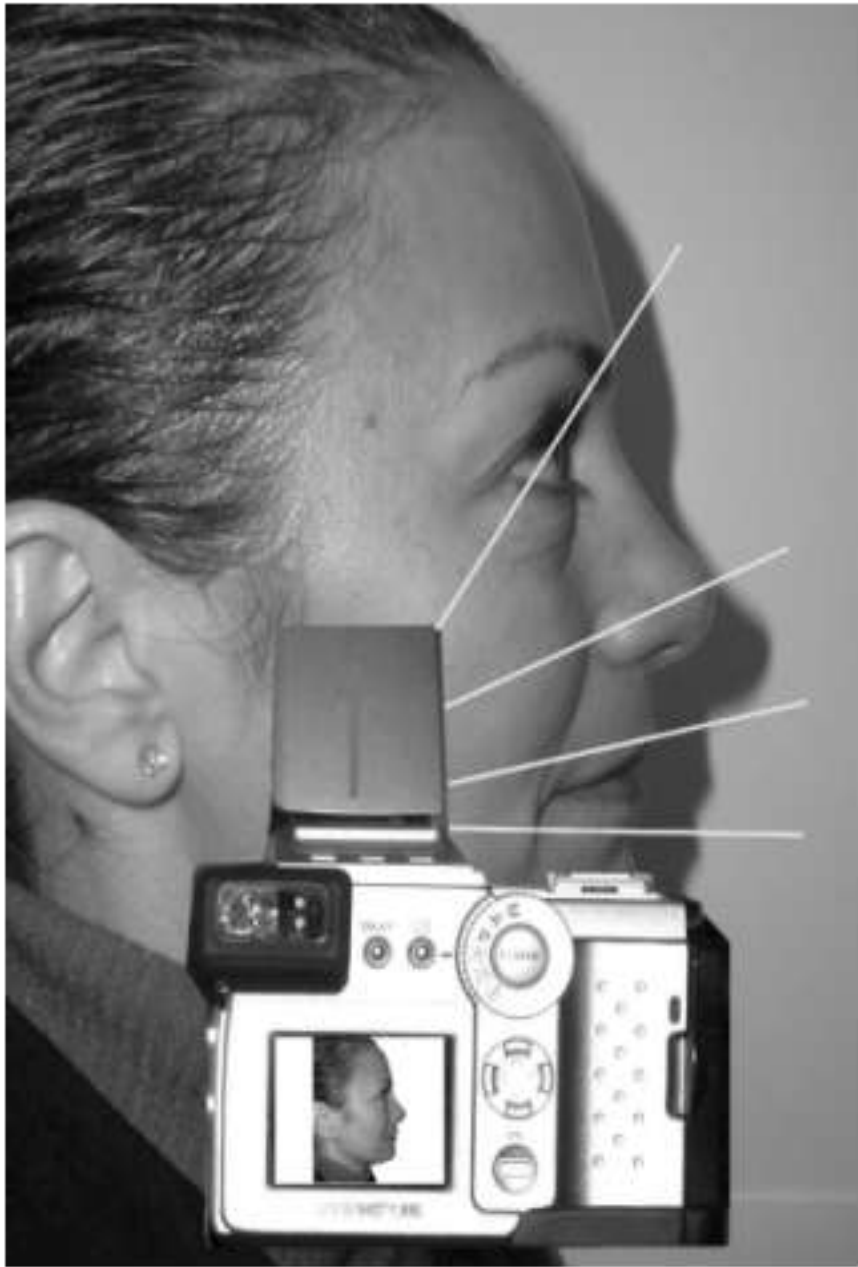
- The lighting requirements for medical photography are different than the requirements for other kinds of photography.
- Patients are always lit so that the appearance is completely realistic, providing physicians with the perfect visual tool.

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Lighting

- The secret to getting professional quality photos with natural color and shadows is lighting equipment.
- Using lights that are always in the same location that have natural color balance is the solution to getting publication quality photographs.
- Lighting is better to be wall mounted unless the room shape will not allow this method then we offer light stands without legs that can not be tripped over, and are easy to mark their position on the floor.

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of our work



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Standard Photos

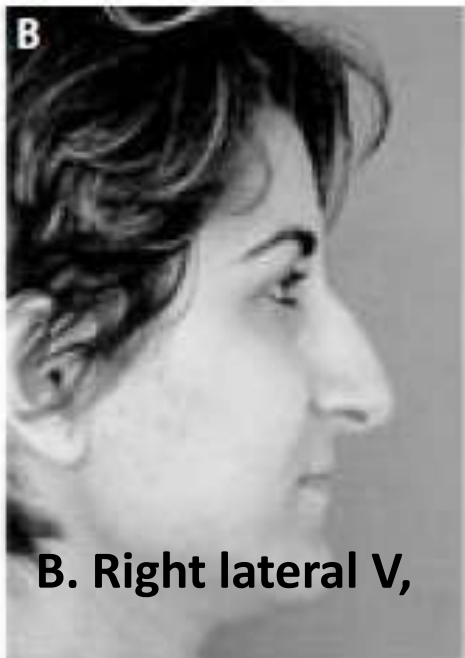
- The American Society of Plastic Surgeons has done a great job in establishing standards for plastic surgeons taking before and after photos of patients. This includes a publication called [“Photographic Standards in Plastic Surgery”](#) and a PDF version is available for [your viewing](#).

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Standard Poses For Common Plastic Surgery Procedures



A. Anterior



B. Right lateral V,



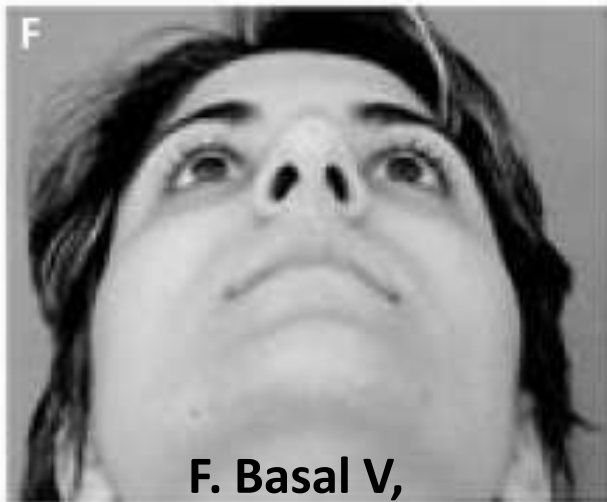
C. Right oblique V,



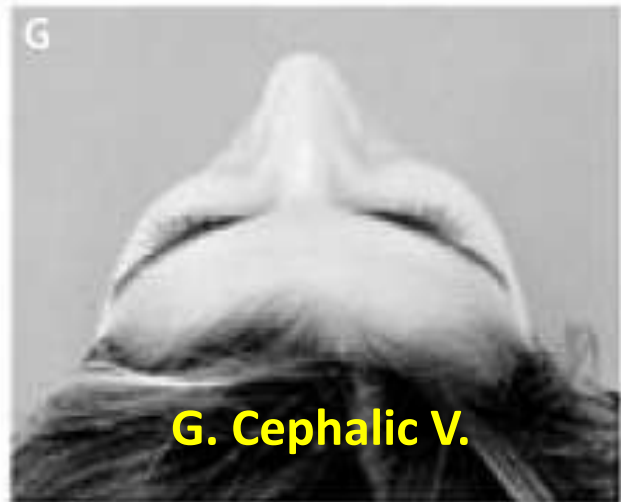
D. Left lateral V,



E. Left oblique V



F. Basal V,



G. Cephalic V.

Standard Views of Rhinoplasty

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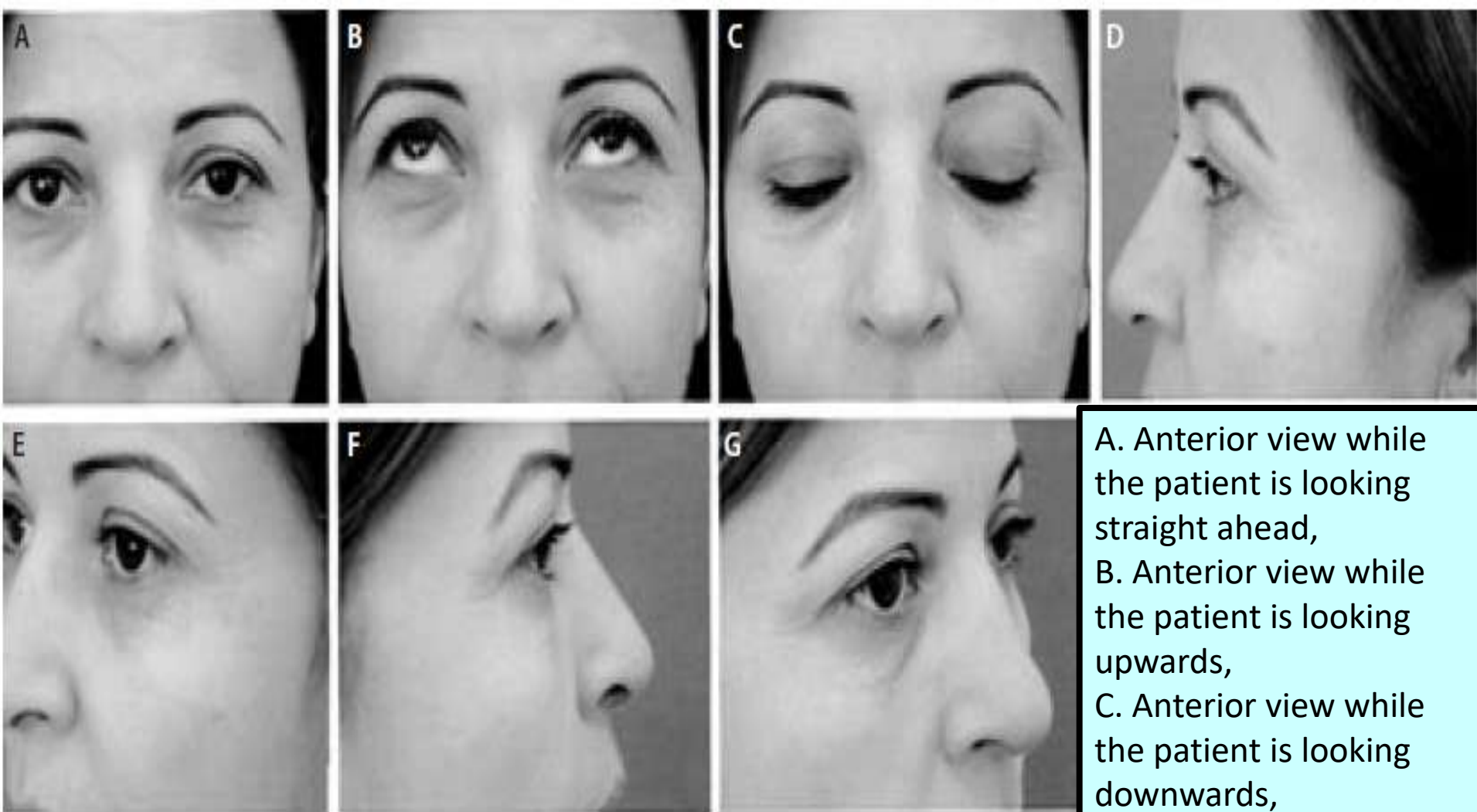


Dr. M. R. B.



A. Anterior V, B. Right lateral V, C. Right oblique V, D. Left lateral V, E. Left oblique V, F. Right close-up V, G. Left close-up V, H. Anterior view of the neck while the patient is gnashing her teeth, I. Left lateral view in reading position, J. Right lateral view in reading position.

Standard Views of rhytidectomy



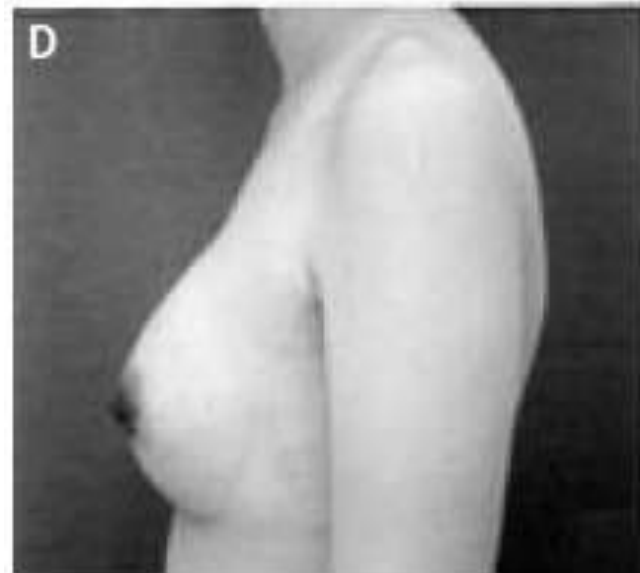
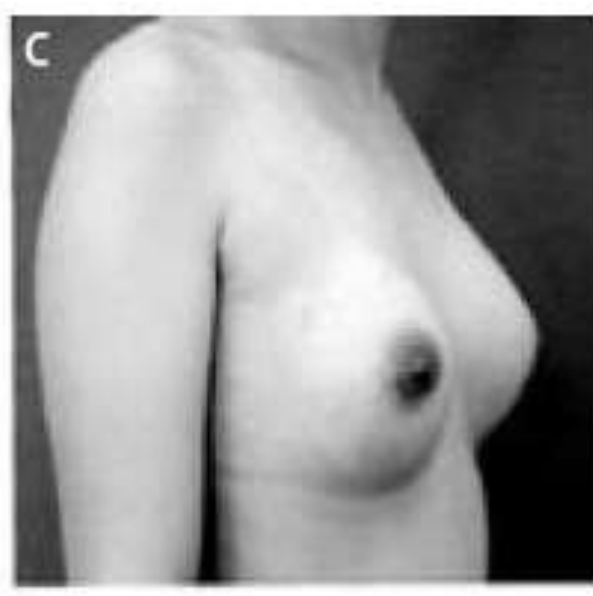
A. Anterior view while the patient is looking straight ahead,
B. Anterior view while the patient is looking upwards,
C. Anterior view while the patient is looking downwards,
D. Left lateral view,
E. Left oblique view,
F. Right lateral view,
G. Right oblique view.

Standard Views of Blepharoplasty

Dr. [unclear]



of my look:



- A. Anterior V
- B. Right lateral V
- C. Right oblique V
- D. Left lateral V
- E. Left oblique V

Standard Views of Mammoplasty

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Standard Views of Otoplasty

Dr. W. N. B.



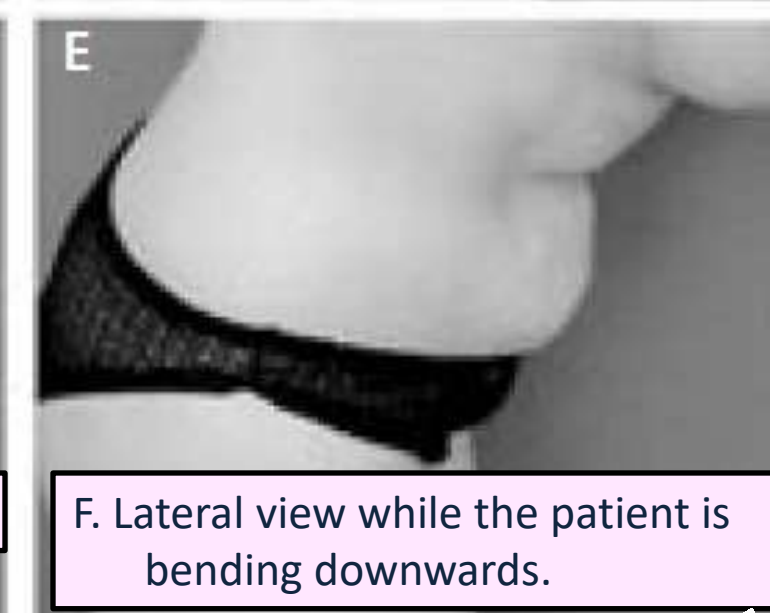
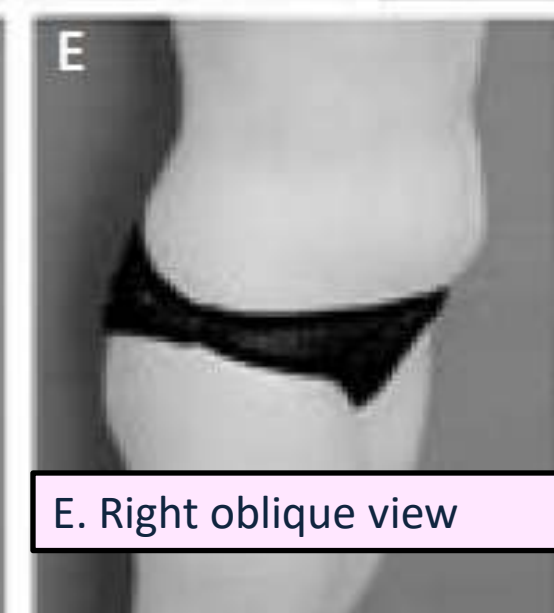
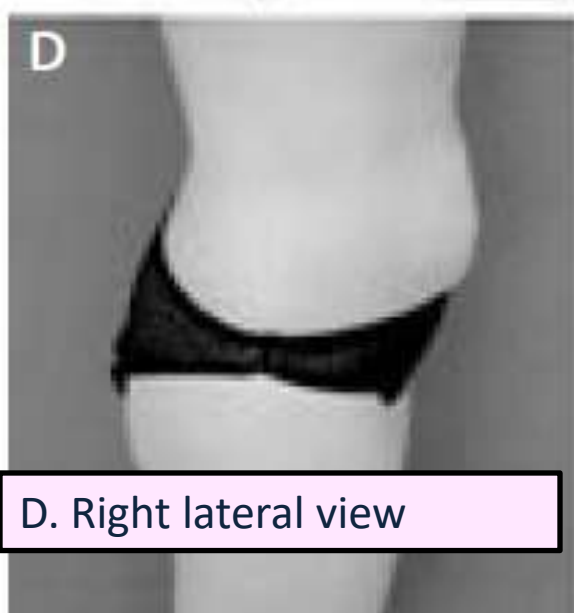
A. Anterior view,
B. Posterior view,
C. Right close-up view,
D. Left close-up view.



A. Anterior view,

B. Left lateral view,

C. Left oblique view,



D. Right lateral view

E. Right oblique view

F. Lateral view while the patient is bending downwards.

Standard Views of Abdominoplasty

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Archiving Images

Just taking digital images is of little use if you cannot find them.

- Folder for each procedure with a subfolder for each case.
- The Date the photos were taken.
- Using archiving software.

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Thank You!