

TRAINING DECK 2020

# Optomed Aurora IQ Basic

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# Intended use of medical cameras and modules

Optomed Aurora® Camera is a medical digital camera that is used with dedicated optics modules intended to capture images and video of the fundus of the eye and surface of the eye.

Optomed Aurora Camera with Optomed Aurora® Retinal Module is intended to capture digital images and video of the fundus of the human eye.

Optomed Aurora Camera with Optomed Aurora® Anterior Module is intended to capture digital images and video of the surface of the human eye and surrounding areas.



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# Sales versions

1.

## RETINAL SET

has all parts needed for  
imaging the retina

2.

## FULL SET

includes all parts of the retinal set  
plus an optic module for imaging  
the surface of the eye

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# Carry Case

**Optomed Aurora IQ full set case contains the following items**

## DEVICES

1. Optomed Aurora Camera
2. Optomed Aurora Retinal Module
3. Optomed Aurora Anterior Module\*

## ACCESSORIES

1. Charging Station
2. USB Cable
3. Power Supply
4. Eye Cup (2 pcs)
5. Battery (2 pcs)
6. USB Flash Drive
7. Cleaning Cloth
8. User Manual and other material

*\*Not included in retinal set*



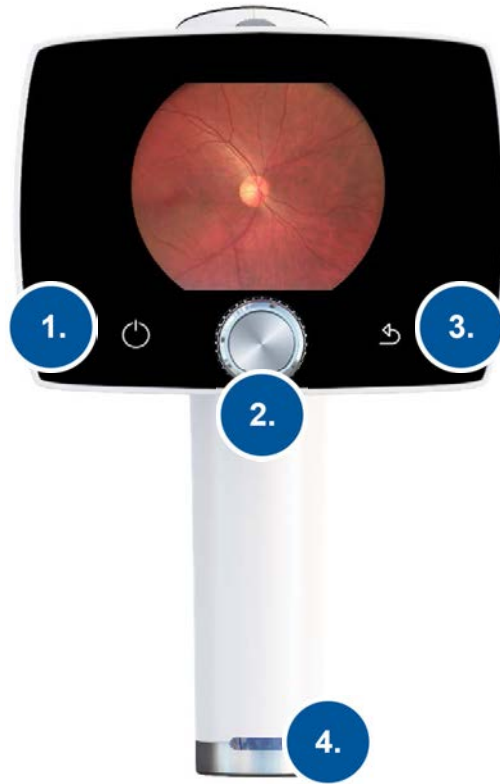
# Parts

1. Retinal module
2. Anterior module
3. Spare battery
4. Camera
5. Battery
6. Charging Station



# Parts

1. Power button
2. Optoroller
3. Back button
4. Battery Charging Indicator
5. Dual Action Shutter



# Charging Station

Placing camera onto the Charging Station:

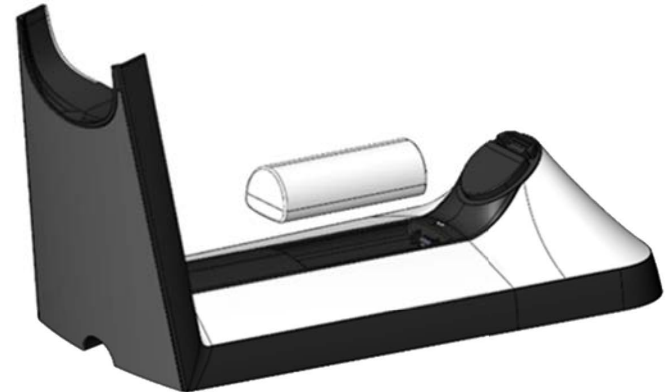
- Place camera on the Charging Station when Retinal Module is attached.
- Place the handle of the camera carefully onto the connector of Charging Station and move the front part of the optics module onto the support.
- Avoid excessive force in order to prevent camera and Charging Station connectors from breaking.





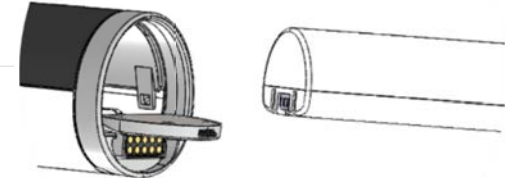
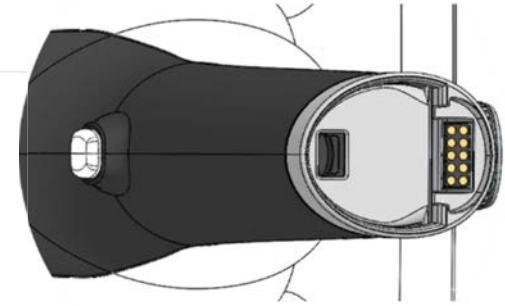
# Battery

- Optomed Aurora camera has rechargeable Lithium-ion battery.
- Battery usage time in continuous use is approximately two hours.
- Battery charges once the **camera is placed onto the Charging Station.**
- Charge extra battery by placing it onto Charging Station.



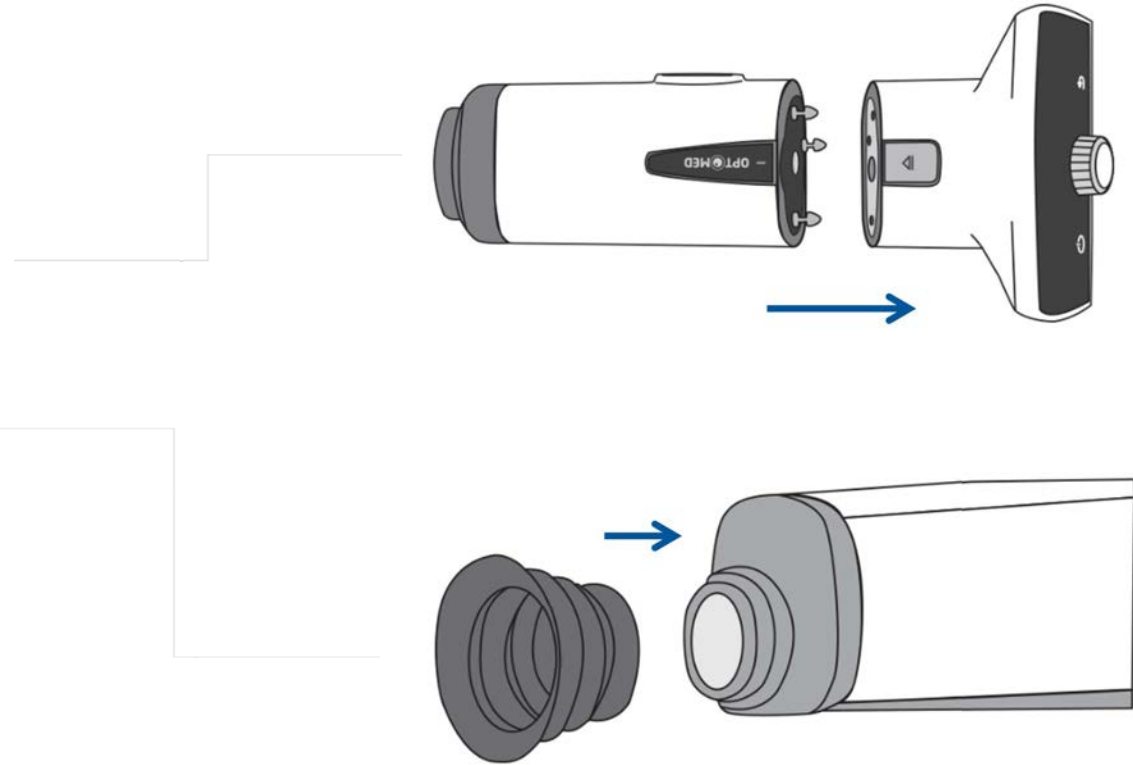
# Replacing battery

- Ensure that the camera is powered off when placing the battery.
- Open the battery cover by sliding the battery cover release knob.
- Insert the battery and press the cover firmly into place.



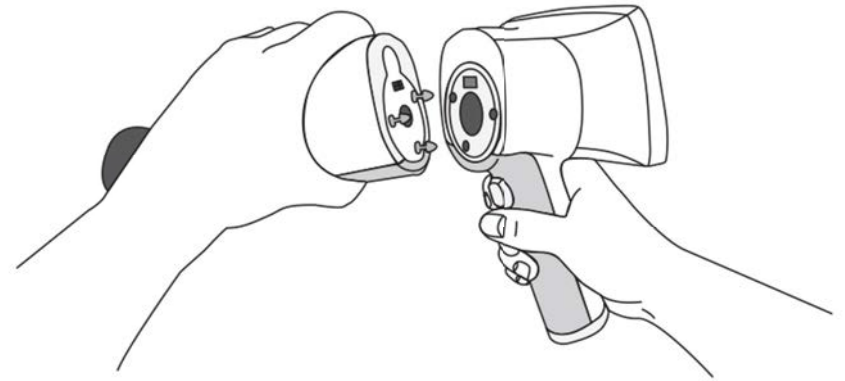
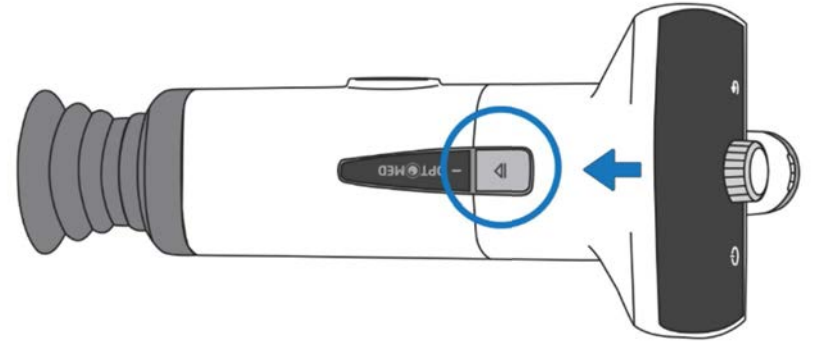
# Attaching optics

- Attach optics module to the camera by connecting firmly the bayonet legs of optics module to bayonet holes of camera.
- Place the eye cup on the optics ring of Aurora Retinal Module.



# Detaching optics

- Detach optics module by pressing the eject button on the top of the camera and take the camera and optics module apart.







# Retinal imaging

Quick Guide for taking good retinal images

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# SkyLine® UI and quick menu

Enter quick menu by pressing Optoroller



## BEFORE RETINAL IMAGING

# Preparations



### **DIM THE LIGHTS**

The examination room should be as dark as possible.

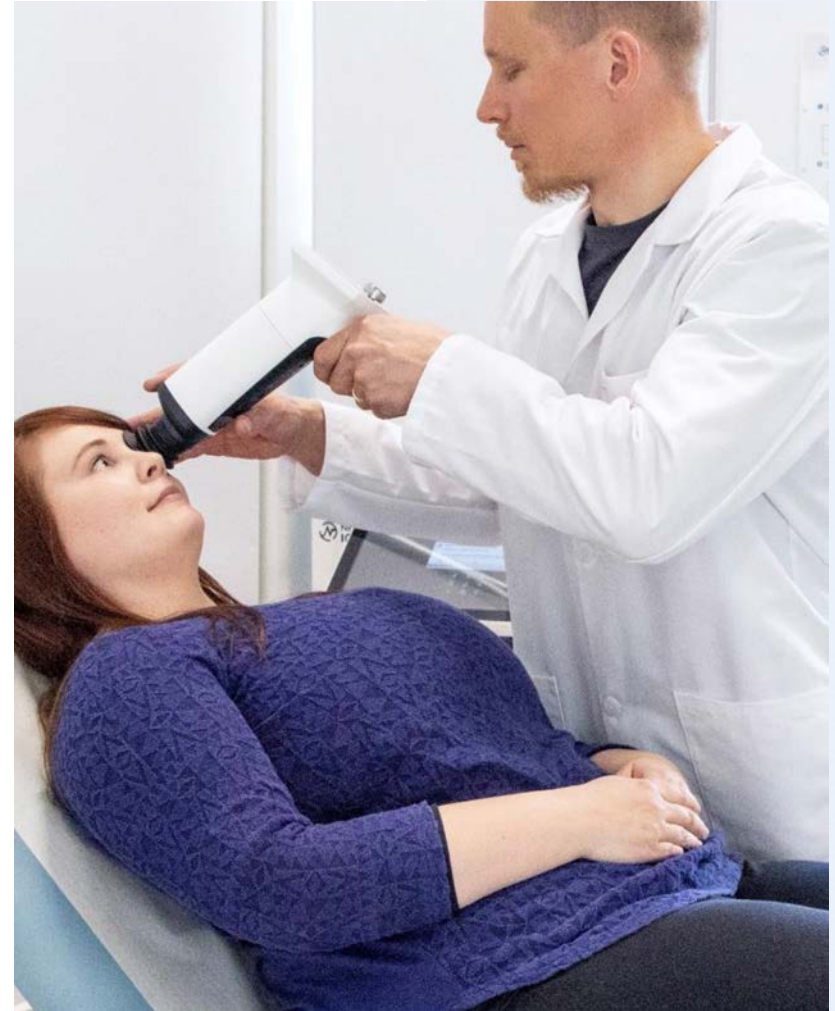


### **TAKE PROPER WORK POSITION**

The patient and the examiner should be seated if possible. Always use both hands to stabilize the camera when taking pictures.



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## BEFORE RETINAL IMAGING

# Camera settings

1.

**Create a new study** Create a new study to separate images from previous patient. Add patient details manually, import worklist or take images without patient details.

2.

**Select target led**

Adjust fixation target to get macula or disc centered image.

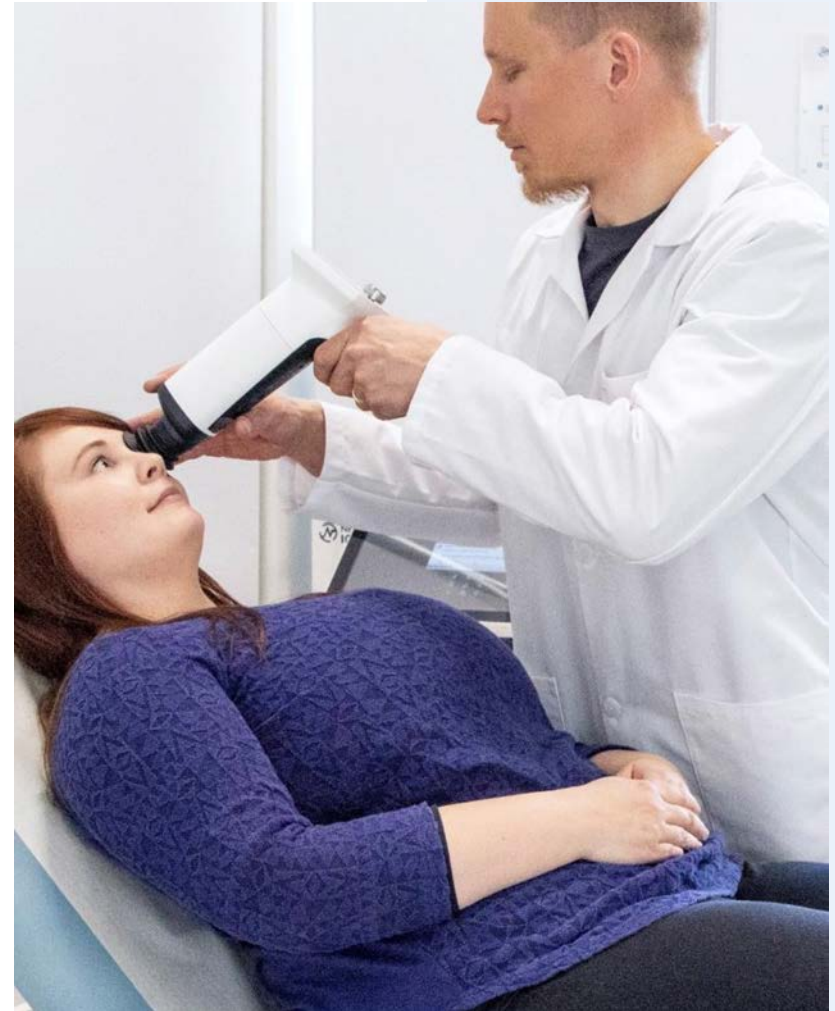
3.

**Use automatic exposure** Aurora adjusts image brightness automatically according to patient's eye color or guides to use correct brightness level.

4.

**Select focusing mode**

In autofocus mode Aurora will automatically focus on retina. Manual focus mode can be used if patient's refraction error is known.





# Aiming view

View of camera display when aiming is successful

## Aim help circle

The aim help circle on the display guides when to capture an image. When the retina is not fully in view, the circle is red. Once the aim is good and the retina fully appears on the screen, the circle turns green.

## Optic disc

Optic disc and main blood vessels must be visible and in good focus when taking an image.



# Imaging



## STEP 1

Use both hands to support optics. Stabilize from the forehead.



## STEP 2

Approach from longer distance, look to the camera display and keep the pupil in the middle. The retina can be recognized from the grey reflection.



## STEP 3

Locate the retina. Keep the reflection in the middle of the display when coming closer to the retina.

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#### **STEP 4**

Do small adjustments to front end of the camera when approaching the retina.



#### **STEP 5**

Approach until the retina has fully appeared in the display.



#### **STEP 6**

Aim help turns green when the retina is seen in the full field of view. After this it is recommended to move the camera slightly (1 mm) closer to the eye.



#### **TAKE AN IMAGE**

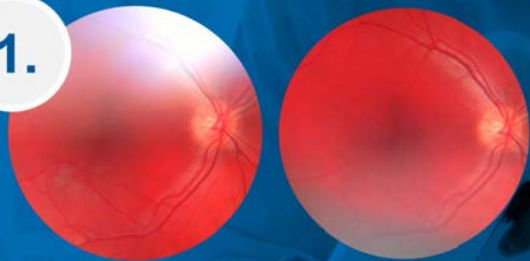
Take an image by pressing the dual action shutter button.

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# Most common fundus imaging problems

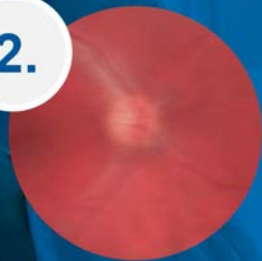
1.



## REFLECTIONS IN THE IMAGE

Imaging distance is too far away if there is a reflection in the bottom of the image. If the imaging distance is too close, a reflection in the top of the image appears.

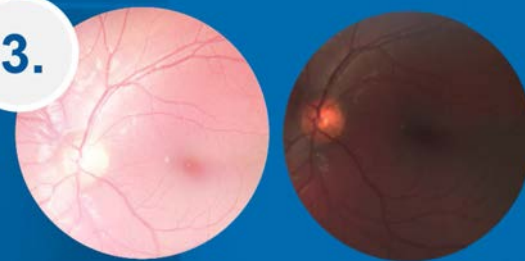
2.



## IMAGE IS NOT IN FOCUS

Check refraction value and ask the patient to fixate to the target LED or use autofocus.

3.



## IMAGE IS TOO DARK OR BRIGHT

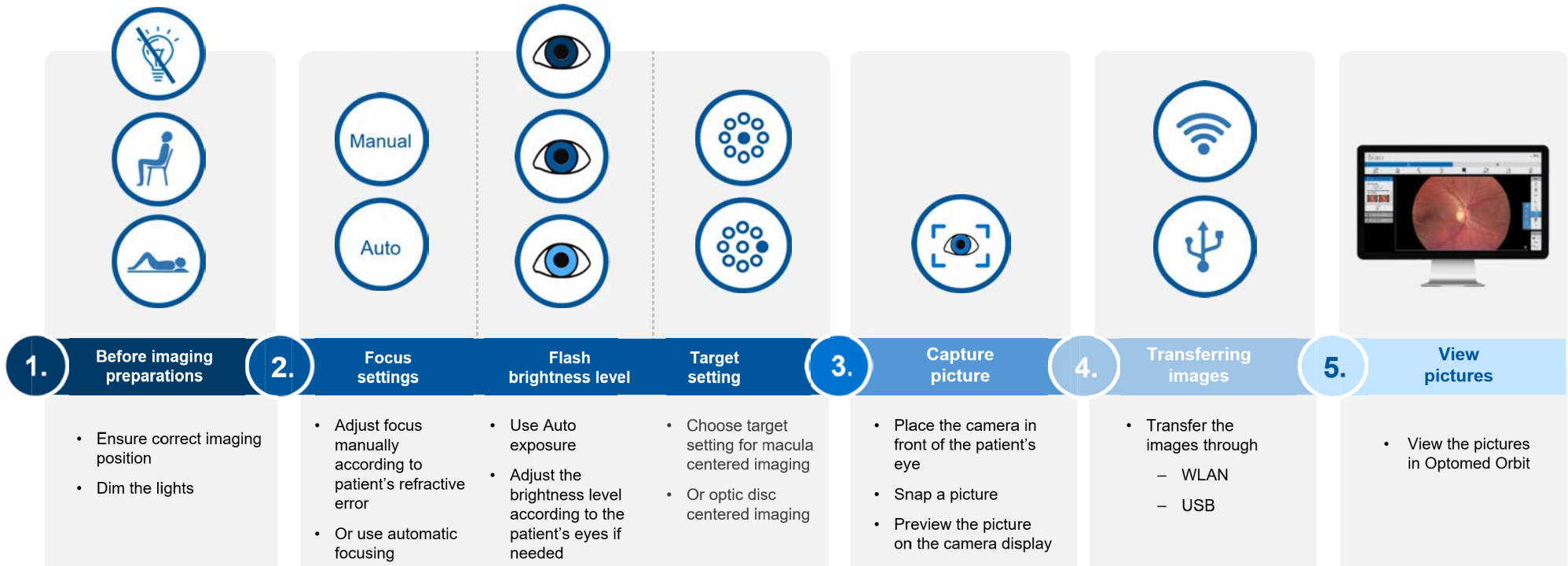
Increase brightness level to brighten image and decrease brightness level to increase brightness

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# Summary of training



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# Anterior imaging

Quick Guide for taking good images of the surface of the eye

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# Quick guide to anterior imaging

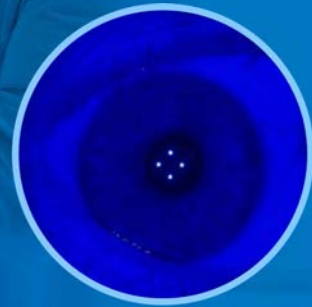


# Imaging modes



## WHITE LEDS

Normal colored images of the eye surface



## COBALT BLUE LEDS

Enhances features of cornea when fluorescein strips are used

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## BEFORE EYE SURFACE IMAGING

# Preparations



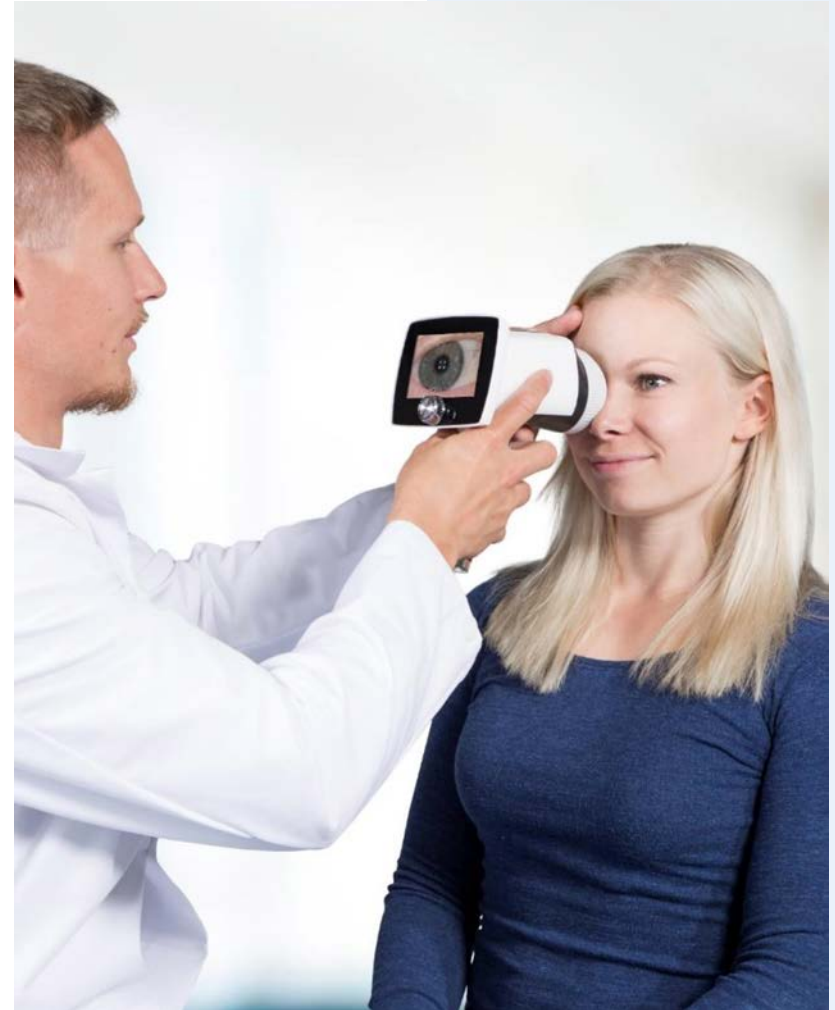
### TAKE A PROPER WORKING POSITION

- The patient and the examiner should be seated if possible.
- Always use both hands to stabilize the camera when taking images.



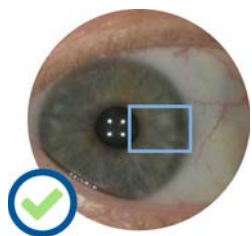
### SET AUTOFOCUS

- Use autofocus when taking an image.



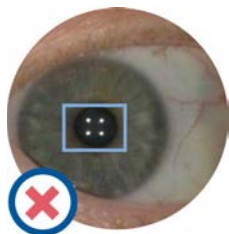


# Positioning and focusing



## POSITIONING

- Position autofocus window to the area of interest, but away from bright reflection spots and eye lashes.



## FOCUSING

- Half press the dual action shutter button and wait until the camera completes focusing. Check focus and full press to take an image.



# Transferring images

Transfer images using USB or WLAN

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# Image transfer methods



## IMAGE TRANSFER THROUGH USB CONNECTION

Transfer images via USB  
by placing camera onto  
charging station



## IMAGE TRANSFER THROUGH WLAN

Enable WLAN by installing  
Optomed Client PC software  
which is found from memory  
stick inside the sales case

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