delmont imaging

Our colposcopes

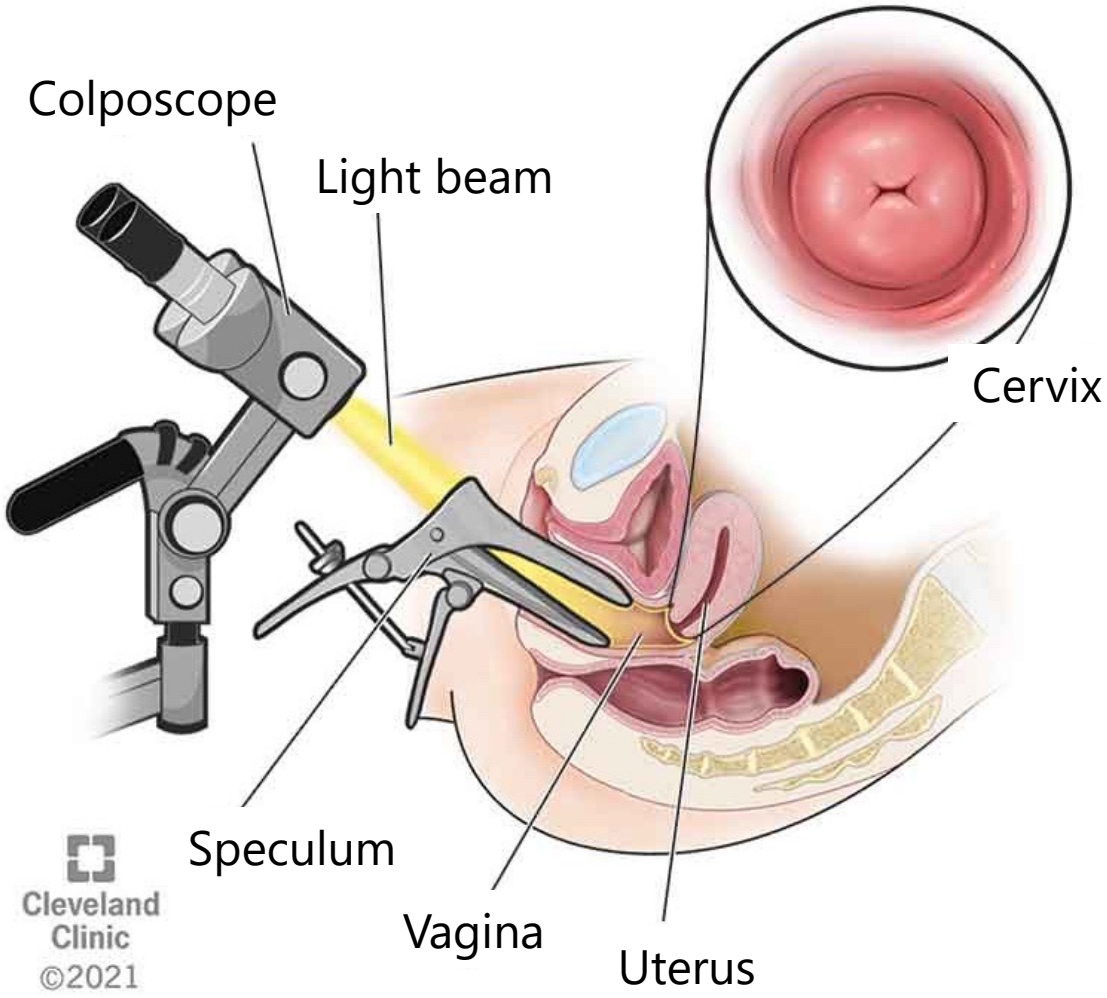
now combined with iCare mini

for even greater performance

1. THE PRINCIPLE

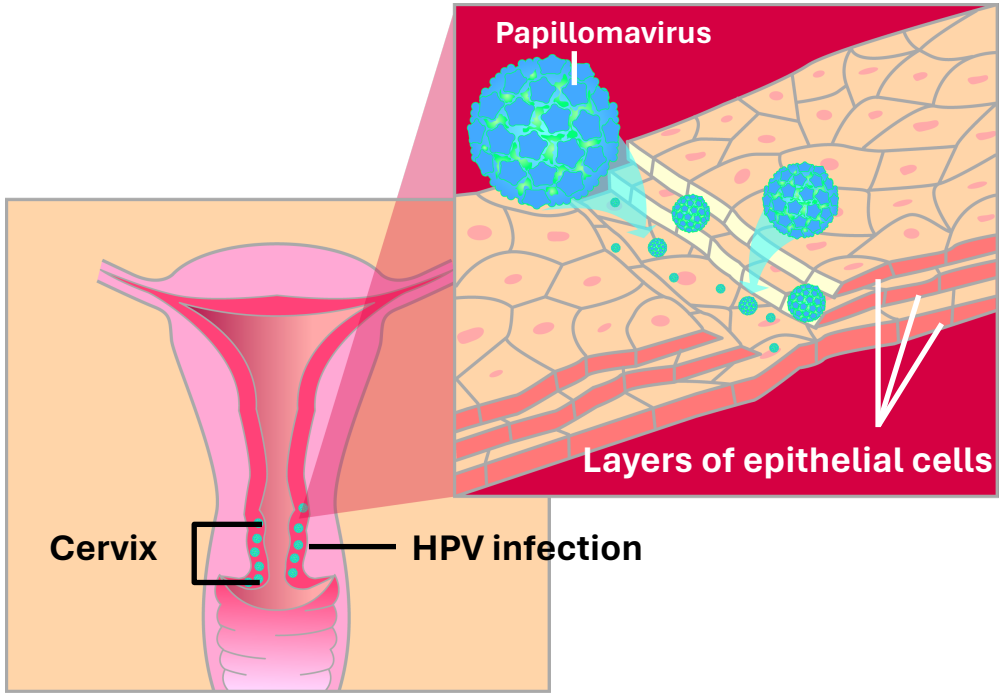
What is **colposcopy?**

- **Colposcopy** is an in-depth examination that allows **direct visualization** of:
  - The cervix
  - The vagina walls
- It is carried out using a **binocular magnifying instrument (microscope)** combined with a light source.
- The aim of this examination is to localize **any abnormal lesions**, and consequently to locate **sites for biopsies**.
- Colposcopy is a relatively painless examination that requires **no anaesthetic**.



HPV, the human papillomavirus

- The vast majority of **cervical cancers** are caused by the **human papillomavirus (HPV),** which is sexually transmitted. It is a very common infection among sexually active men and women.
- There are over **100 different types** of HPV:
  - In most cases, HPV causes no health problems and disappears naturally.
  - Some types only cause genital warts.
  - But sometimes a woman is infected with a **"high-risk" HPV (~15 types)** that doesn't go away on its own.
  - And in rare cases, an HPV infection that doesn't disappear **turns into cervical cancer**.



- Cervical cancer takes **10 to 20 years to develop** following HPV infection.

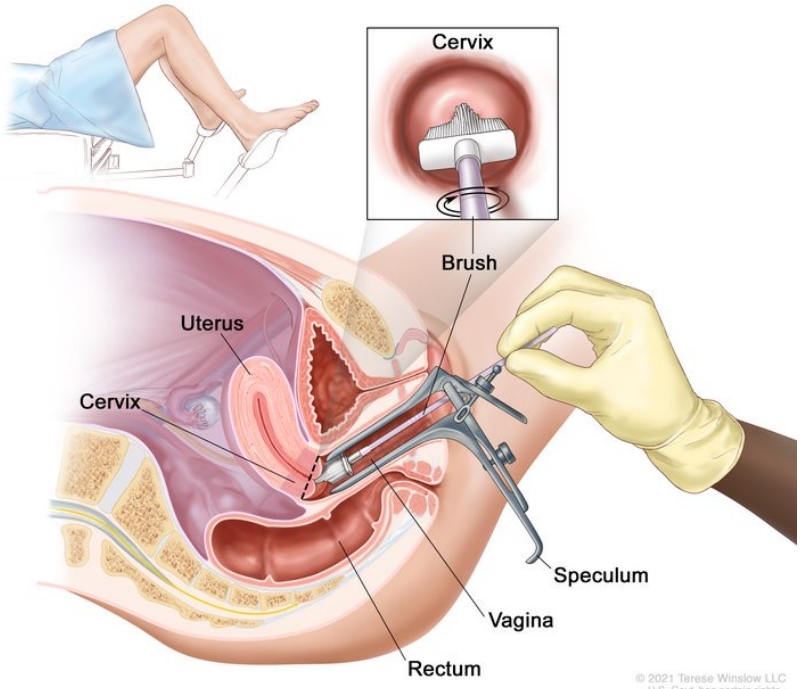
Colposcopy in screening

- The **process of screening for uterine cancer** and the recommendations of medical societies vary from country to country.
- Overall, however, **colposcopy is recommended** in the following cases:
  - A positive HPV test
  - One pathological PAP (papanicolaou) test
  - Two consecutive unsatisfactory PAP tests.
  - Follow-up examination after surgery.

An **HPV test** uses molecular research to detect the presence or absence of **viral DNA**.

A **PAP test** is the microscopic examination (cytology) of the sample **for abnormal or precancerous cells**.

Cervico-uterine smear test



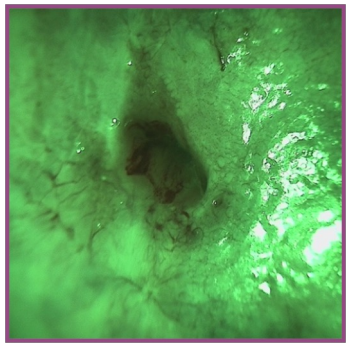
- Cervical cancer is one of the most common cancers in women. But it's also **one of the easiest to prevent**!

The **different steps** of the examination

- After **inserting a speculum** to keep the vaginal walls apart, and **positioning the colposcope**, the doctor follows the steps below:

1. Visualization of the cervix without dye or filter for an initial **general assessment** (secretions, inflammation, outgrowth, etc.).
2. Use of the **green filter** for **vascularization analysis**. The cervix must be cleaned with saline beforehand.
3. **Acetic acid test**: vinegar in very dilute concentration which whitens tissues with a high protein load, i.e. abnormal cells called "acidophilic".
4. **Lugol test**: iodine base that blackens normal mucous membranes. Complementary to acetic acid, the test confirms a diagnosis and better defines the limits of abnormal areas.
5. Depending on the results, a **cervical biopsy and/or endocervical curettage** may be performed.
6. Examination of the **vaginal walls** (the acetic acid test can also be performed on these areas).

No dyes or filters



Green filter

Acetic acid test

Lugol test

Different locations and **types of use**

- Depending on the purpose of the colposcopy (diagnostic or operative), the examination will not be performed under the same conditions:

DIAGNOSTIC COLPOSCOPY

- In the consultation room, whether in private practice or in a healthcare center (private or public).
- No anesthesia.
- No advanced surgical interventions.
- Examination carried out with the primary aim of locating biopsy sites and performing them, as described above.

OPERATIVE COLPOSCOPY

- Procedure performed **when HPV lesions are detected** following the results of a biopsy performed during a previous diagnostic colposcopy.
- In the operating room of a healthcare center (private or public).
- With general or locoregional anesthesia.
- Treatment options to remove lesions include cryotherapy, laser ablation, thermoelectric loop or scalpel conization.

2. RANGE OVERVIEW

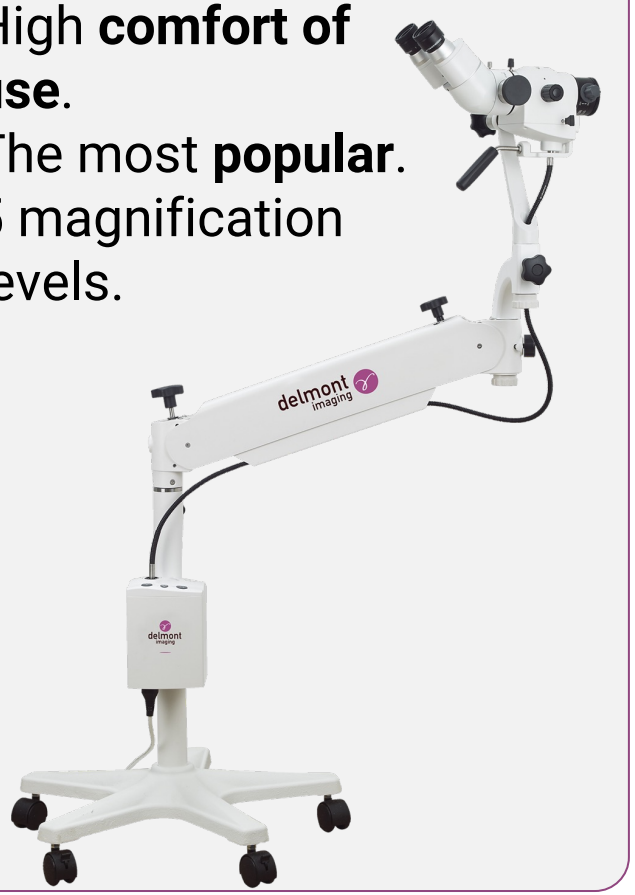
Three ergonomics available

Vertical post colposcope

- Suitable for **small rooms**.
- The **least expensive** in the range.
- 3 magnification levels.

Swing-arm colposcope

- High **comfort of use**.
- The most **popular**.
- 5 magnification levels.



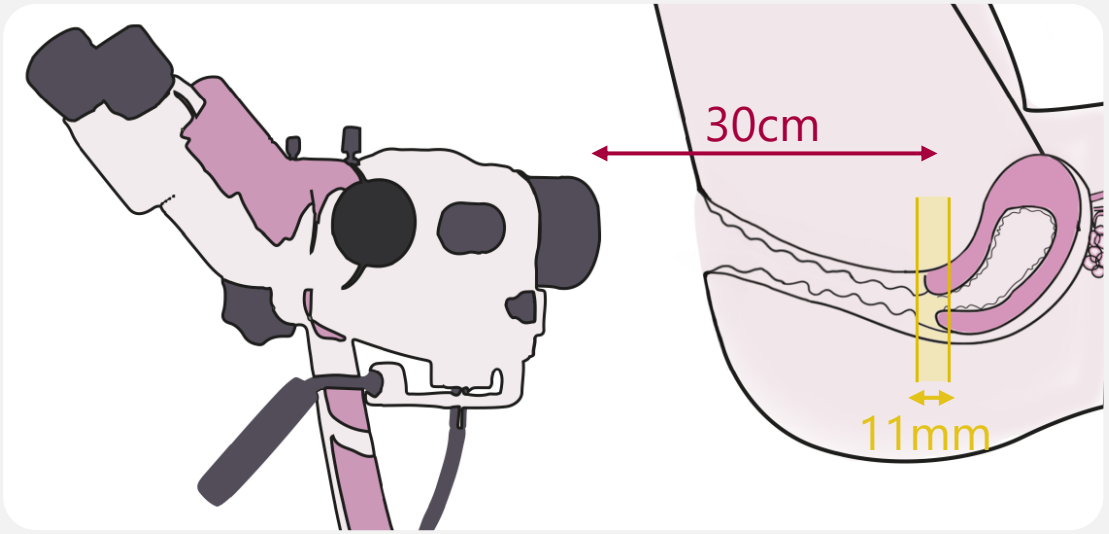
Over-the-shoulder colposcope

- Ergonomics designed for the **operating room**.
- 5 magnification levels

Two types of lens available

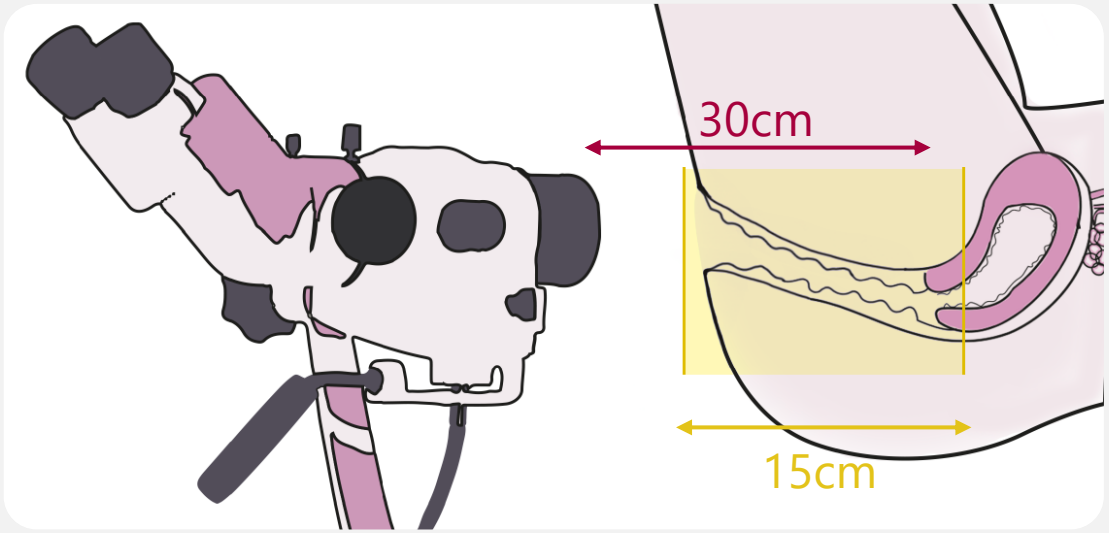
Fixed focus lens

- The colposcope must be positioned at the exact distance of the lens focal length (usually 30cm for colposcopy).
- **Focus range of 11mm.**
- The colposcope must be moved regularly during the examination.



Variable-focus lens

- The colposcope can be positioned without high precision (ideally ~30cm from the cervix).
- **Focus range from 20 to 35cm**.
- The colposcope does not need to be moved during the examination.



Optical customization possible

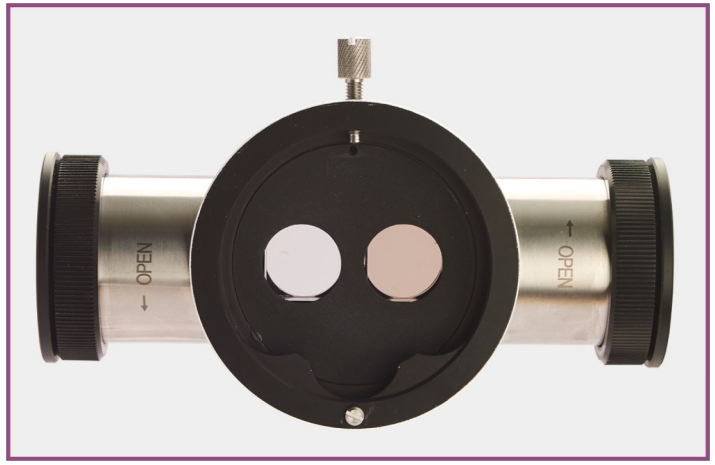
Three eyepiece models available:
- 10x / 18mm
- **12,5x / 16mm (by default)**
- 16x / 16mm

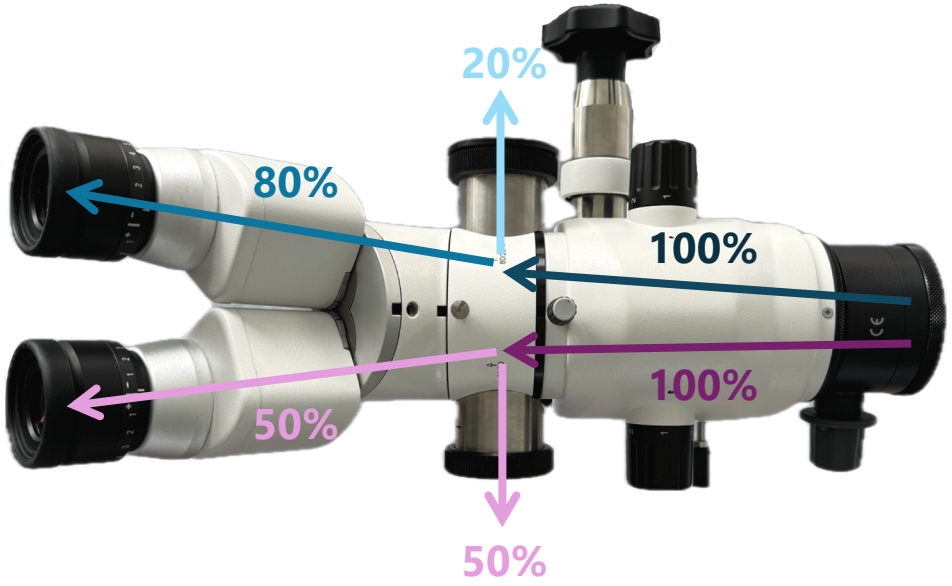
Three binocular models available:
- **45° binocular (by default)**
- 0° binocular
- Tiltable binocular from 0° to 220°

Regarding the eyepieces:
- The different models have an impact on **the diameter of the field of vision.**
- **Optional reticles can be added** inside them at the time of purchase.

Two types of lens available:
- **Fixed-focus** lens: 175mm, 200mm, 250mm, 300mm or 400mm.
- **Variable-focus** lens: Range from 200 to 350mm

The beam splitter





- As soon as an additional imaging device is to be connected, **a beam splitter is required**.
- Our beam splitter is **double**: it divides each of the two initial optical beams in two, to enable the connection of two separate devices.
- Division is made possible by the use of **prisms**.
- Depending on the **prism's coating,** the incident light beam will not be equally separated between the two beams created.
- In our case, our beam splitter consists of:
  - a **50/50** splitting prism
  - an **80/20** splitting prism

Connecting a DSLR camera

- To connect a DSLR camera to the colposcope, a **special camera adapter** must be attached to the beam splitter.
- **Three connector versions** are available:
  - Canon brand
  - Nikon brand
  - Sony brand

DSLR cameras require a significant amount of light to produce resolute photos.
We recommend installing them on the **50/50 connector** of the beam splitter.

Connecting a video camera

- To connect a video camera to the colposcope, a **specific video adapter** must be attached to the beam splitter (80/20 connector).
- **The connection of the adaptor is CS-mount**, but a ring is available to obtain a C-mount.

Dedicated colposcope camera

- Direct connection to video adapter.
- Several types of video camera available:

Camera not dedicated to colposcope

- For example, when a hysteroscopy column is already present in the room.
- **Add a bonnette adapter** for easier use.

Adding a monitor

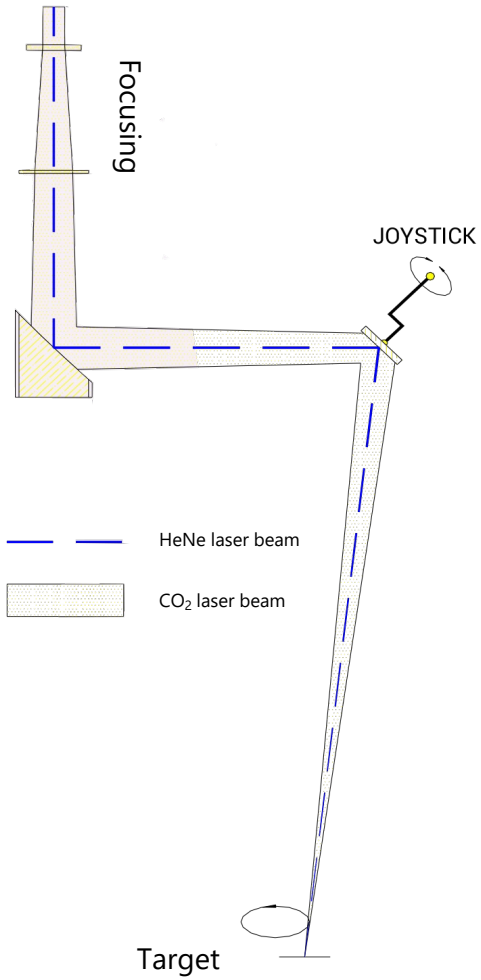
- A monitor support is available in the catalog for **integrated video display** on the colposcope:
  - Compatible monitor size: up to 24".
  - VESA mount 100x100
- An image capture device with video output must be connected to the beam splitter (DSLR camera, iCare mini, etc.).

This monitor support **is not compatible with the vertical post colposcope**.

Micromanipulator

- A micromanipulator **couples a surgical CO_2 laser to the colposcope's vision** for the treatment of uterine lesions.
- The joystick moves the laser beam to the desired target.
- A **laser adapter** is also required, but will differ according to the brand and model of the customer's laser:

Reference	Designation
D100 300 511	Micromanipulator for Delmont colposcope
D100 300 013	CO_2 laser adapter for micromanipulator



Armchair mounting

- The colposcope can be mounted on a chair frame using **an additional mounting arm**.
- Only **Schmitz gynecological chairs** are compatible with our mounting arm.
- This configuration **considerably reduces overall footprint**.

Only swing-arm colposcope ergonomics are compatible with this installation.

And even more accessories

Protective cover

- For use in **operating rooms**.
- **Sterile**, single-use device.
- Allows the user to manipulate the colposcope head while wearing sterile clothing.

Co-observation arm

- Allows **two separate operators to look through** the colposcope simultaneously.
- Two versions are available:

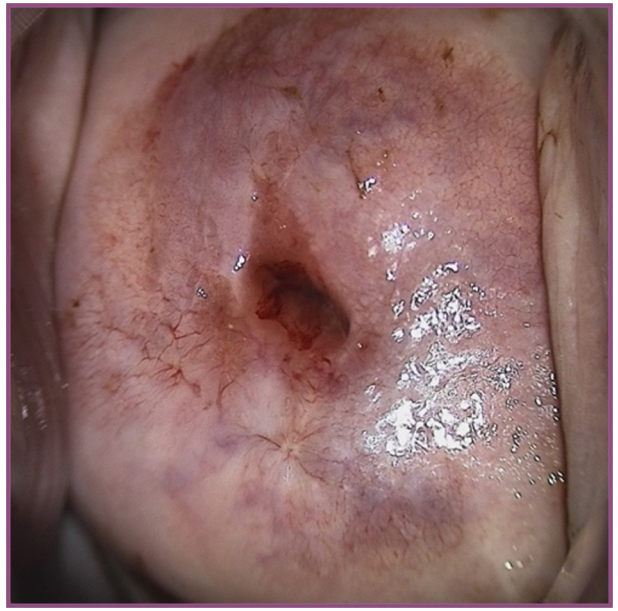
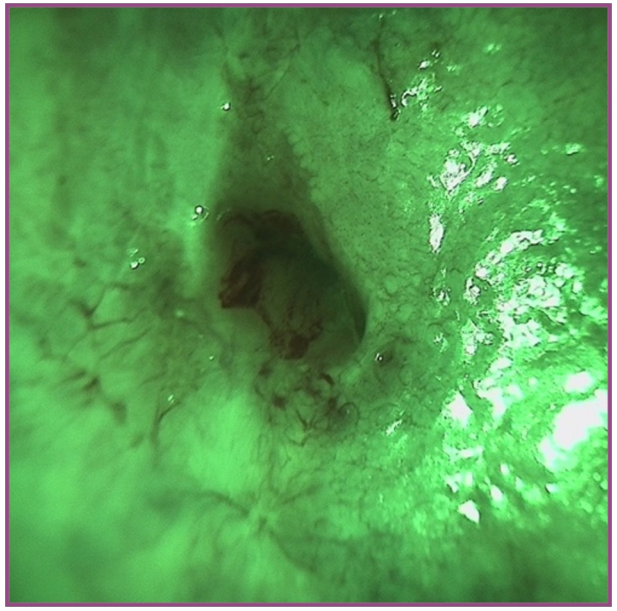
2D assistant arm

3D assistant arm

3. STRENGTHS

High-definition optical quality

- The primary aim of colposcopy is to **make a correct diagnosis, and to detect potential uterine cancer as early as possible.**
- Good quality of vision is therefore the **most important feature**.
- Our colposcopes incorporate **very high-definition optical components.**
- And our lenses are **apochromatic** (chromatic aberration correction).

Complete and ultra-customizable range

- Three different ergonomics, a wide range of accessories**: we have the perfect solution for every customer**.
- **Upgradeable at any time** and for any accessory!

We launched the range in 2020. **In France alone**, by the end of 2022 we had sold **57 colposcopes**. And in 2023 alone, we have sold **42 units**.
The ratio between the three ergonomics is as follows:

57%

38%

5%

Variofocus, optimised comfort

- The variable-focus lens s**ignificantly increases the gynecologist's ease of use**.
- Having a **sharp image throughout the examination** becomes extremely easy.
- Ultimately, this ease of use translates into **significant time savings** for the doctor, for each examination.

We sell 89% of our colposcopes with a variofocus lens.

Colposcopy report

- Via our imagyn application, available on iPad, **a colposcopy report is available** with many advantages:
  - ➢ Integration of exam photos.
  - ➢ Anatomical drawings that you can annotate.
  - ➢ Complete list of fields, fillable in just a few clicks.

To use the imagyn application, customers must also **have iCare or iCare mini**.

Download on the App Store

imagyn

4. THE USE

Head operation

Magnification knob available on either side (3 or 5 magnifications depending on model)

Beam splitter for connecting accessories

Integrated mechanical green filter. Push/Pull tab.

Handle for positioning the colposcope head

Interpupillary distance and diopter adjustment

Focus knob 360° positionable:

- Variofocus: range from 200 to 350mm
- Fixed lens: 11mm range

Setting the **mobility hardness** of the colposcope head

Light cable connection

Colposcope body operation

Vertical post colposcope

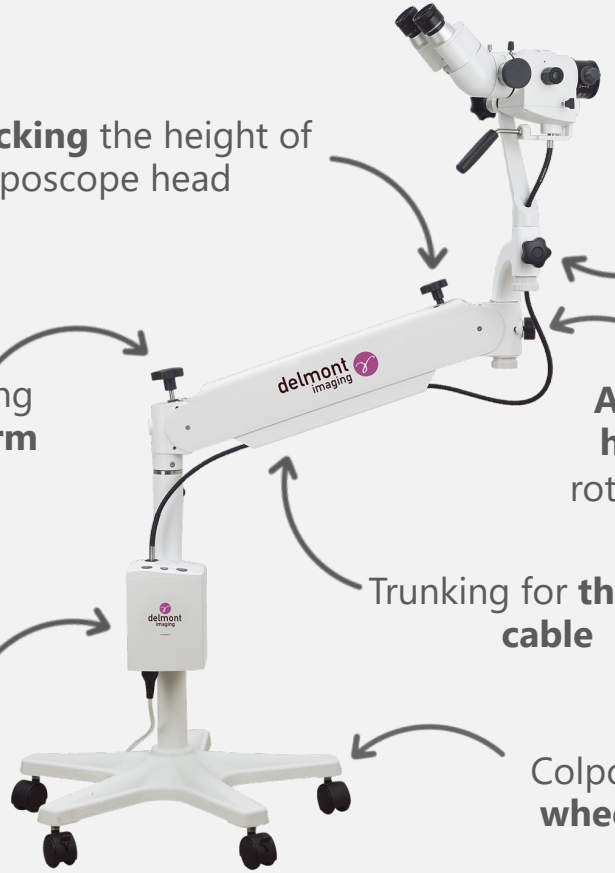
Knob for **adjusting the hardness** of the right/left rotation of the colposcope head

Unlockable knob for **colposcope head height adjustment**

LED light source

Colposcope base with **5 wheels, 2 with brakes**

Swing-arm / Over-the-shoulder colposcope



Knob for **locking** the height of the colposcope head

Knob for **adjusting the hardness** of the right/left rotation of the colposcope head

Knob for adjusting **pantographic arm weight**

Adjustment knob for hardness of right/left rotation of the offset arm

Trunking for **the light cable**

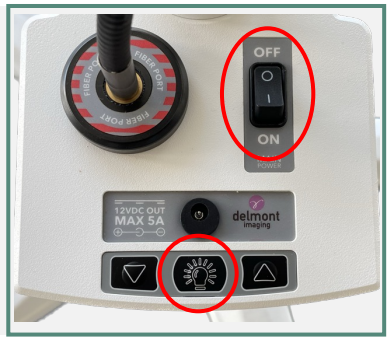
LED light source

Colposcope base with **5 wheels, 3 with brakes**

How to set up a colposcope?

1. Turn ON the light source

Switch ON the main button. Once the light source is ready, press the Lamp button.



2. Inter-pupil space setup

Look through both eyepieces. Adjust the distance manually until each eye image overlaps.

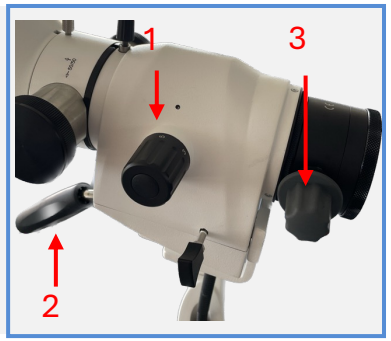
3. Diopter adjustment (1/4)

Only for myopia and/or hyperopia.

Set each eyepiece to 0 (line to line). Target the view on an object.

4. Diopter adjustment (2/4)

Set the magnification to 5. Make a rough focus by moving the head and a precise one with the knob.



5. Diopter adjustment (3/4)

Without moving the colposcope position or the focus knob, set the magnification to 1.

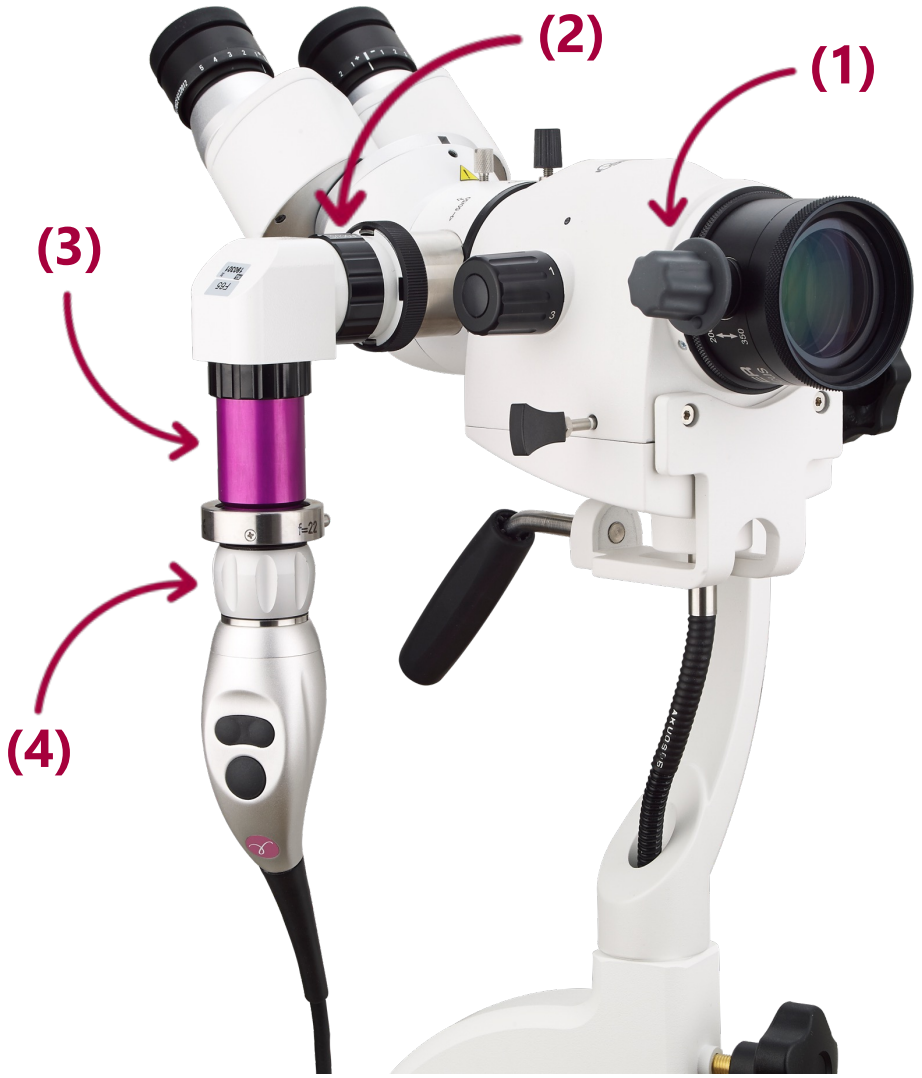
6. Diopter adjustment (4/4)

Adjust both eyepiece diopters by turning them until you reach a sharp image.

Record your values for future use.

Use with a video camera

- Set up the colposcope as shown in the previous slide.
- Target a white surface with the colposcope head and **launch a white balance** via the camera head.
- Place the colposcope ~30 cm from the cervix and **focus with the objective knob (1)** while looking through the eyepieces.
- Then look at the image on the monitor and **focus using the video adapter ring (2).**
- If the bonnette adapter (3) is installed, **focus using the two rings (2) and (4)** to obtain sharpness on the screen.
- For the rest of the examination, **use only the lens knob (1)**. Rings (2) and (4) must not be used!



iCare mini buttons

- The iCare mini buttons allow you to:

  - Short press: **take photos**
  - Long press: start/stop **video recording**

Launch **white balance (long press)**

  - Short press: activates or deactivates **image freeze**
  - Long press: launch or exit **preview mode**

Video recording status indicator (**flashes red** when recording)

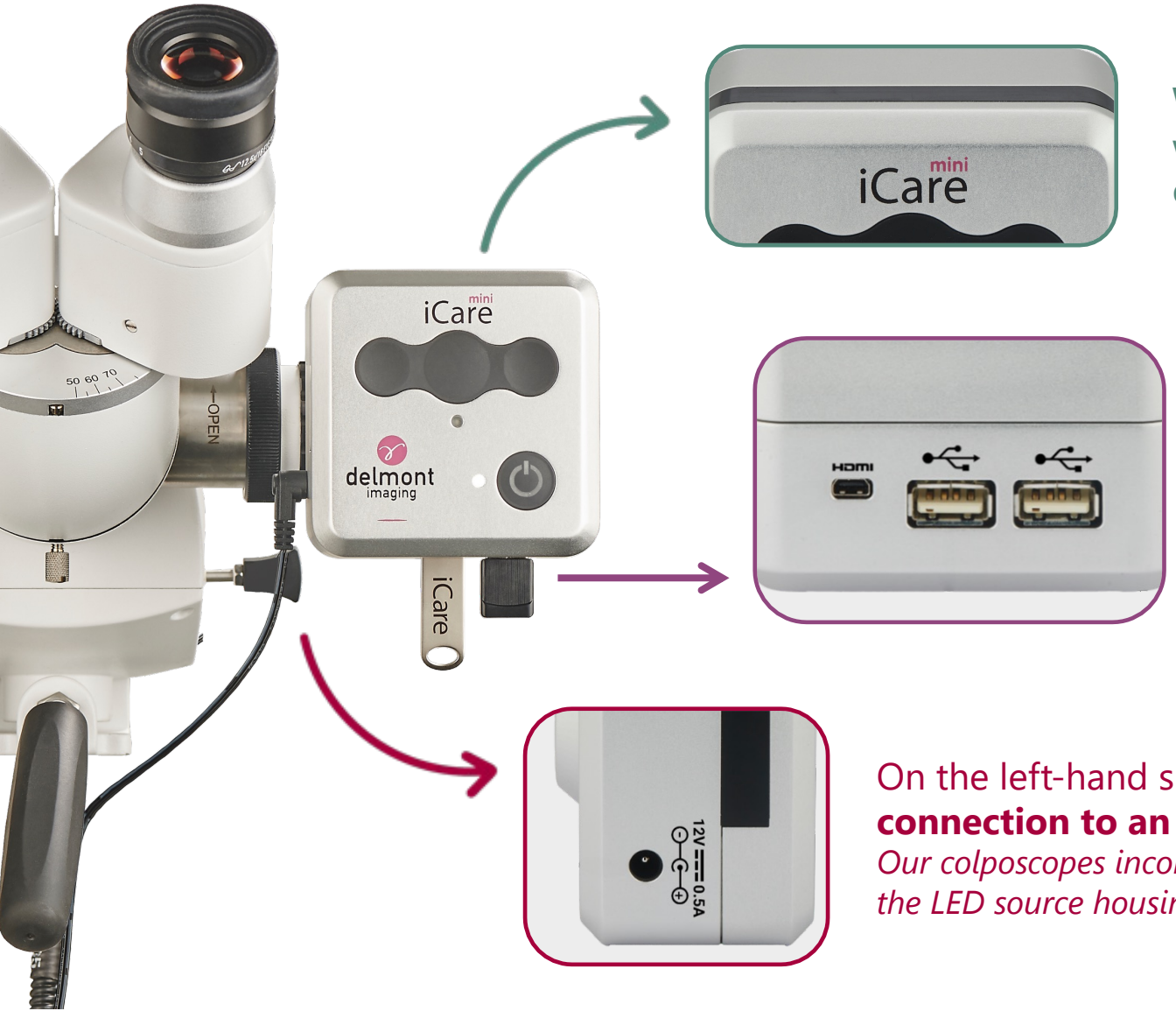
Switch between **standby and exam mode**

Product status indicator ligh :

- Rapid white flash: booting phase (~30sec)
- Slow white flash: standby mode
- Steady white light: examination mode

The three main buttons are also used to navigate the home and settings screens.

iCare mini connectors



Wi-Fi antennae built into the device for communication with imagyn: transfer of streaming video and photos of the examination.

Three connectors available on the underside:

- 1 USB 2.0 output for connecting **a USB storage key for photos and videos.**
- 1 USB 2.0 output for connecting a **Wi-Fi dongle** to connect the camera to the healthcare centre network.
- **1 micro-HDMI video output** for connection to a monitor.

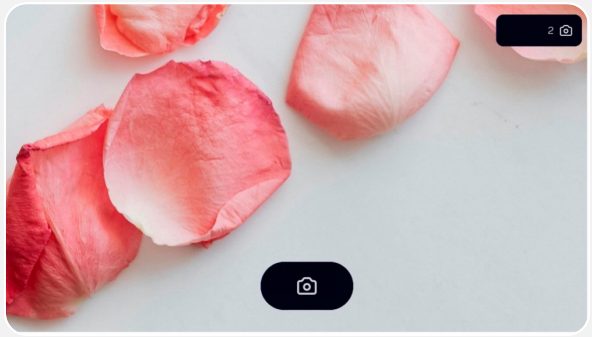
On the left-hand side, there is a **Jack input for connection to an external power supply**.
Our colposcopes incorporate an external power supply in the LED source housing.

iCare mini interface

Home and settings screen

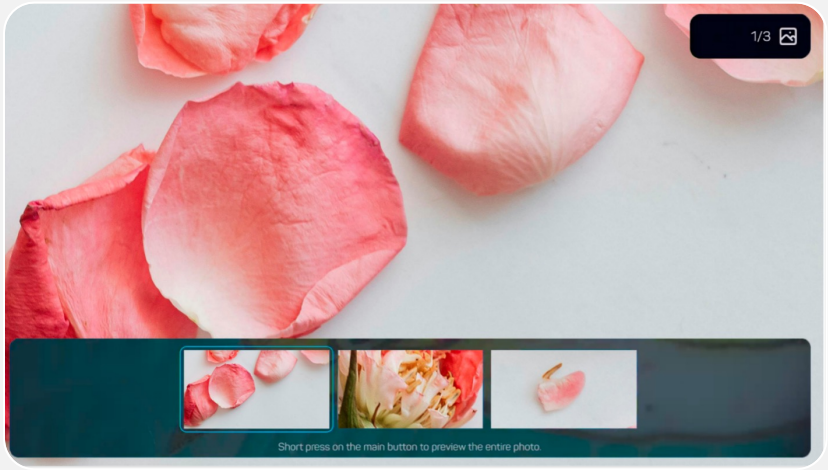
- Several settings are possible:
  - **iPad connection configuration**
  - **Language**: 14 languages available
  - **Image**: choice of 3 presets or manual adjustment
  - **USB key**: current capacity and deleting option
  - **General information**: launch camera software updates and factory reset.

Features in Exam mode



- Taking photos

- Video recording



- Photo preview mode

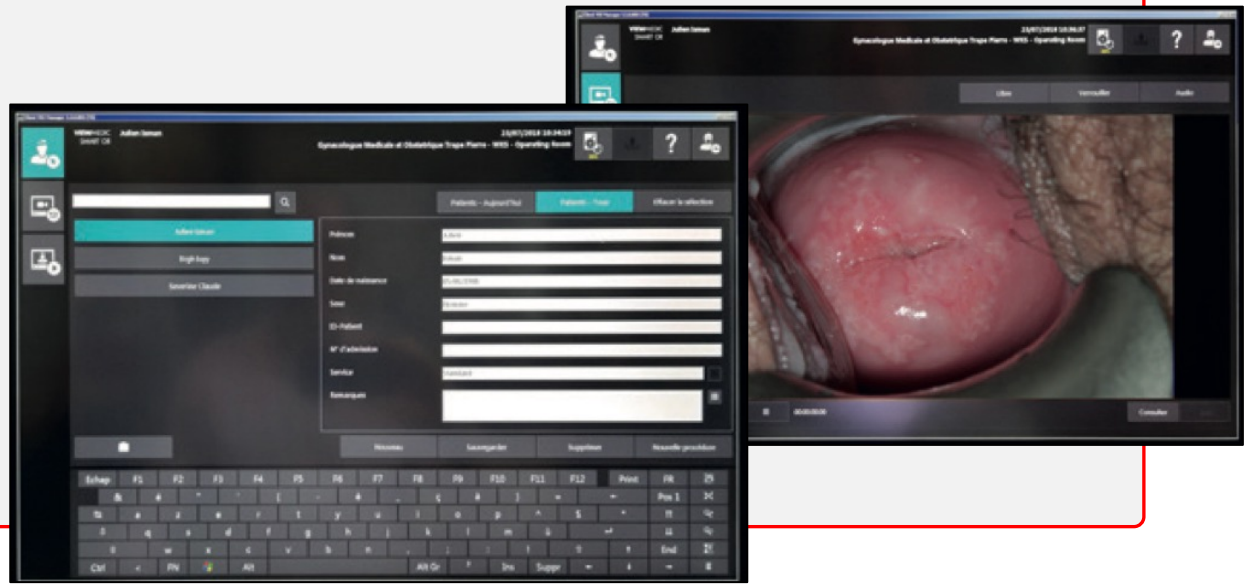
5. THE COMPETITION

KP 3000

SOM 52

- **Motorized** magnification and focus available on the swing-arm version (SOM 52).

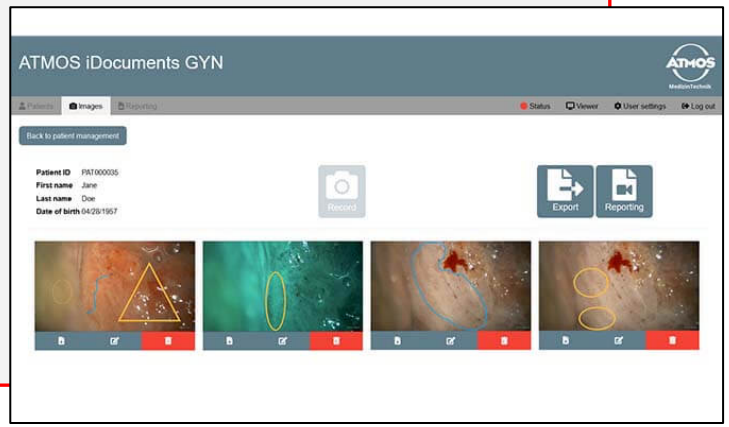
- No **variable-focus lens** available (variofocus).
- **Overall inferior quality:** weight and stability of colposcope stand, quality of optical components, etc.
- **Unintuitive software**, with limited reporting quality.



iView 21 or 31

- **Specific H.A.S.I filter** for better contrast than conventional green filters.
- **Measurement scale overlay** available at any time.

- **Limited range of ergonomics available:** stand-mounted or chair-mounted swing-arm versions.
- **No upgradability of image capture possible wi**th Model 21.
- **Unintuitive software,** with limited reporting quality.



CooperSurgical®

LEISEGANG
The Colposcope Company

OptiK Model 1

OptiK Model 2

- **Reticles available** by default on all their models for lesion measurement.

- No **variable-focus lens** available (variofocus).
- **"Old-generation" design.**
- **No model upgradability.**
- All models **only have a maximum of three magnifications levels**.
- **Overall inferior quality:** weight and stability of colposcope stand, quality of optical components, etc.
- **Panel PC software** with limited reporting quality (captioned photos and videos only).

OPTOMIC
producing quality

delmont imaging

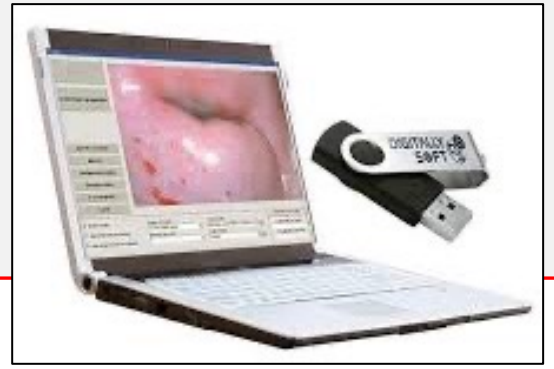

OP-C2L

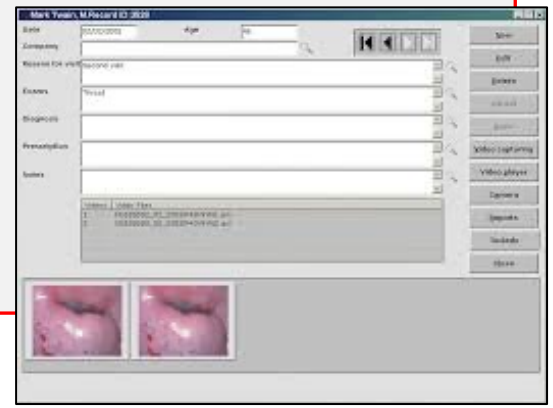

OP-C2


OP-C5

- **Upgradability of image capture** possible on all models.

- **Only one ergonomic design available:** swing-arm colposcope.
- **Variable-focus lens** available only on the most expensive model.
- **Overall inferior quality:** weight and stability of colposcope stand, quality of optical components, etc.
- **Old-generation software,** not very intuitive, with limited reporting quality.





Centrel
The Clear Vision

delmont imaging

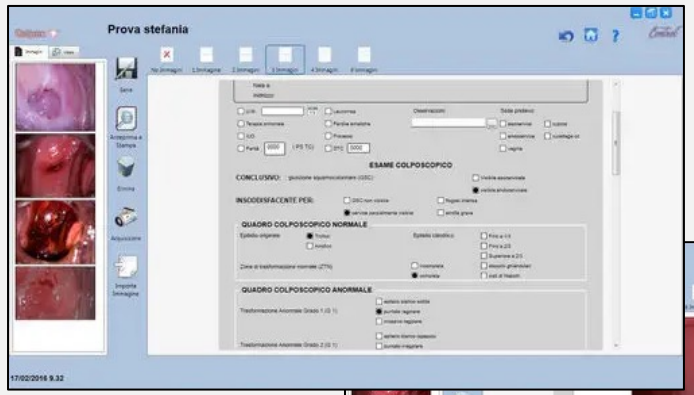
C23

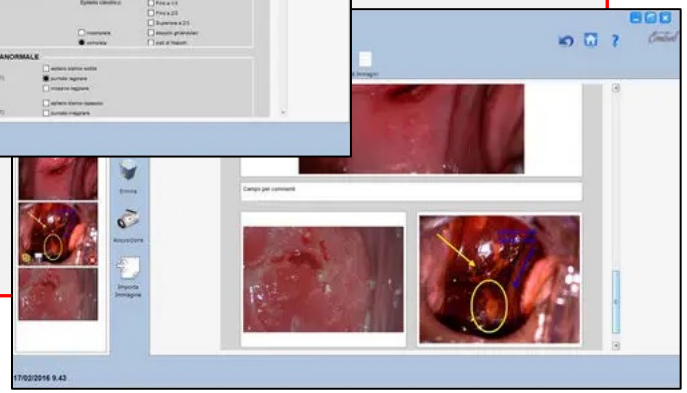
C43

Z4

- **Continuous magnification available** only on the most expensive model (Z4).

- No **variable-focus lens** available (variofocus).
- **Overall inferior quality:** weight and stability of colposcope stand, quality of optical components, etc.
- **Old-generation software,** not very intuitive, with limited reporting quality.





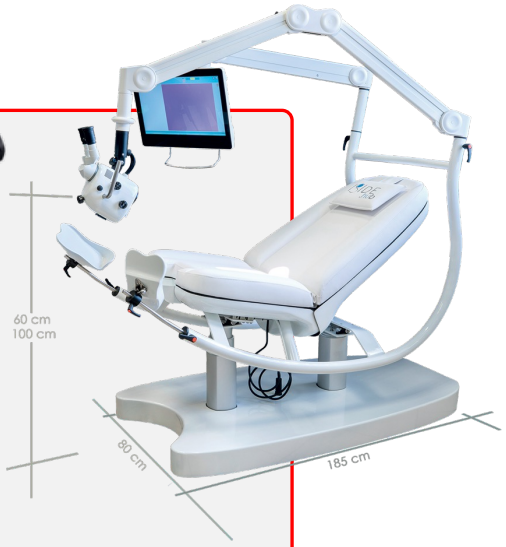
adamo

KOLPOVIEW ISIDE

Kv 20

ISIDE BETA

ISIDE.hub



- A **wide choice** of models with different image capture solutions available.

- **No variable-focus lens** available (variofocus).
- **No model upgradability.**
- Still not very popular in gynecology, and highly variable from country to country (Italian manufacturer). A company **initially focused on dermatology.**
- Software on PC or Panel PC (depending on model) with **limited reporting quality.**

Video-colposcopes

- The video-colposcopy market is a completely different market (2D), for very specific users. **It should not be considered as direct competition.**
- Some examples of brands and models:

Schmitz – Vidan 2

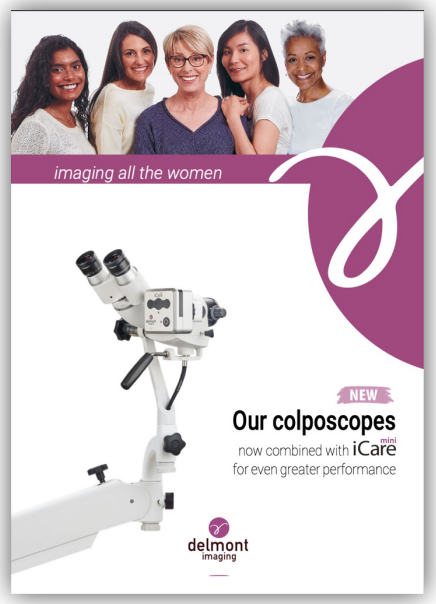
KAPS – ViCo S HD

Duomed – Dysis

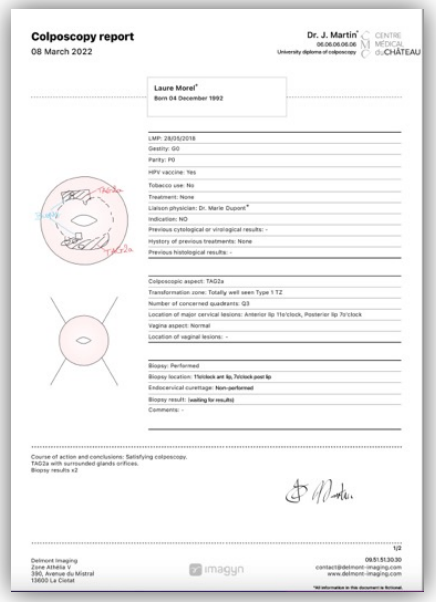
Edan – C3A

6. AND FINALLY…

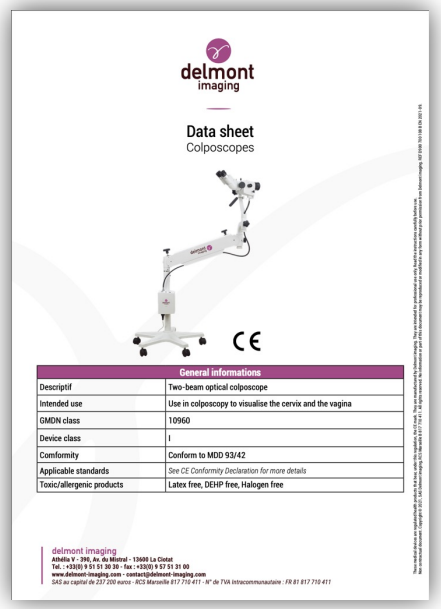
Documents to have



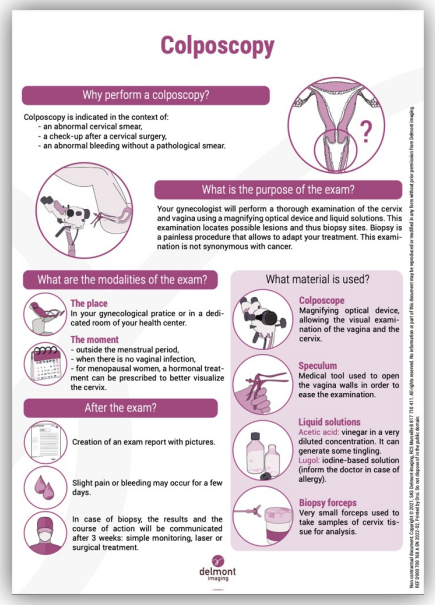
Sales leaflet



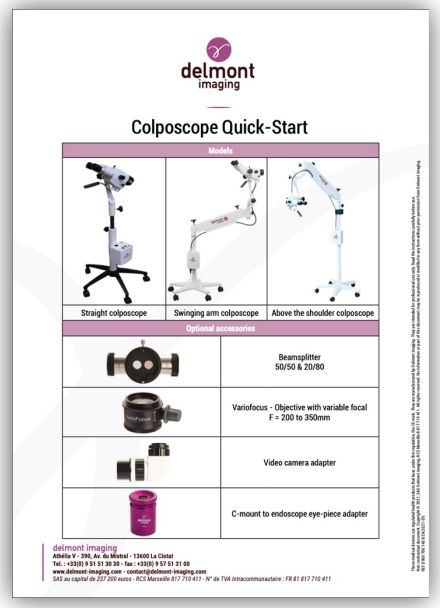
Example of a report



Datasheet



Patient information sheet



Quick-start

All documents are available on **our website and Extranet**.