

OLYMPUS[®]

Your Vision, Our Future

EVIS LUCERA
SPECTRUM

EVIS LUCERA COLONOVIDEOSCOPE
CF-FH260AZL/I

Unprecedented Imaging Performance with Dual-CCD System for AFI and
HDTV Imaging, Plus Optical Magnification and NBI Capability



High-sensitivity CCD for fluorescence imaging provides a powerful new way to observe the mucosa

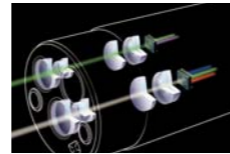
AFI Auto Fluorescence Imaging

Visualizing subtle differences in mucosal structures

Although it has been known for some time that fluorescence is generated when blue light is irradiated on the mucosa, there has been no effective way to exploit this phenomenon because the fluorescence is so weak that conventional CCDs can barely detect it. Now, thanks to a newly developed high-sensitivity CCD, Olympus has developed an AFI system able to accurately detect this fluorescence, making it possible to visualize subtle differences in mucosal structures that would be difficult to discern in normal observation.

The world's first GI scope for AFI fluorescence observation

In addition to a conventional CCD for normal and NBI observation, the CF-FH260AZL/I incorporates a second, high-sensitivity CCD designed specifically for fluorescence observation. The incorporation of both a dedicated AFI CCD and conventional CCD has made it possible to integrate functions for normal observation and fluorescence observation into a single scope.



HDTV, NBI, and optical magnification, as well as AFI

In addition to a dedicated AFI CCD, the remarkable CF-FH260AZL/I also boasts a state-of-the-art HDTV-compatible CCD that enables it to provide today's best possible image quality. This impressive image capturing performance is supported by an optical magnification*¹ function with maximum power of 75×*², as well as by NBI (Narrow Band Imaging). Together, these features make it possible for this single scope to provide three different observation modes — normal, AFI, and NBI. Switchable at the touch of a button, AFI and NBI modes can be used to view the same site — something that is expected to help increase diagnostic accuracy.

*¹ Optical magnification is available in normal and NBI mode.
*² When displayed on a 19-inch monitor. On an 18-inch monitor, magnification is 70×.

Water jet to improve examination efficiency and quality

For best results when performing a high-precision examination with AFI or NBI, debris that may affect imaging needs to be removed from the site. To facilitate this, the CF-FH260AZL/I is equipped with a water jet function that removes blood and stool inside the colon. When the optional OFP-2 flushing pump is combined, even faster irrigation is possible.



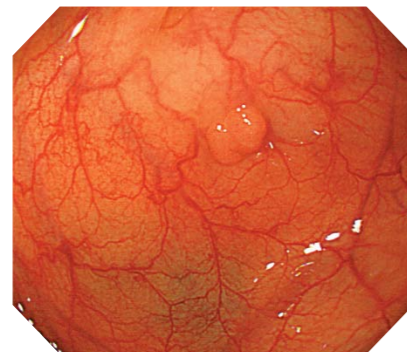
Variable Stiffness design for even better insertability

The flexibility of the CF-FH260AZL/I's Variable Stiffness insertion tube can be adjusted. This enables discretionary modification according to the contours of the colon, ensuring optimum insertability no matter where the scope is in the colon.

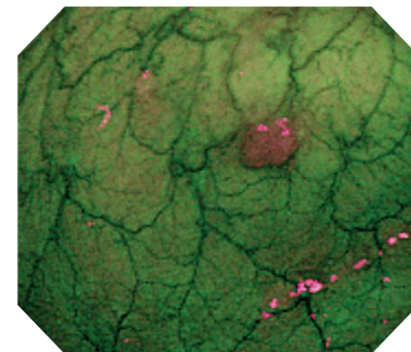
Scope ID function for simplified scope management and setup

A built-in memory chip stores scope-specific information such as product code, serial number, and basic specifications. Every time the scope is connected to a processor, the stored information and updated settings are transmitted to the processor. This saves time when preparing for an examination since you won't have to readjust settings such as white balance each time.

Image Comparison — Colon

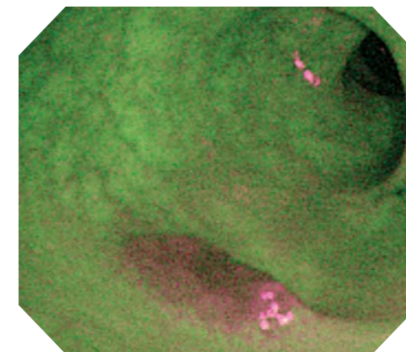


Normal image

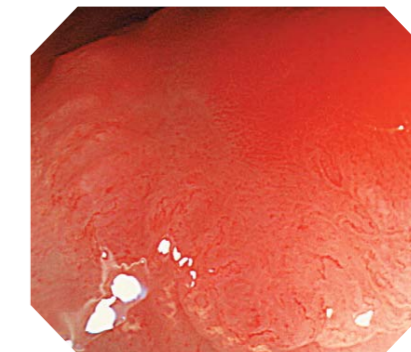


AFI image

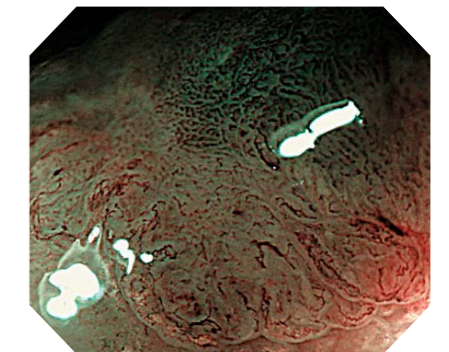
Observation Mode Selection — Colon



AFI image



Normal image (magnified)

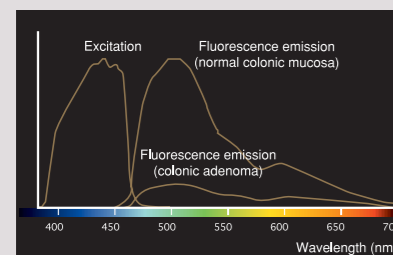


NBI image (magnified)

The Principle of AFI

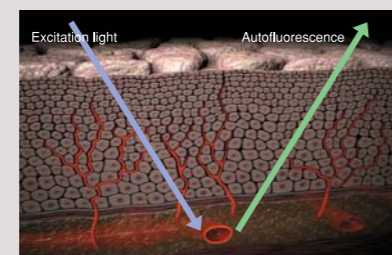
Differences in fluorescence intensity on the mucosal surface

When blue light is irradiated on mucosal tissues, green fluorescence is produced. AFI takes advantage of the fact that the intensity of this fluorescence differs between normal and diseased mucosa.



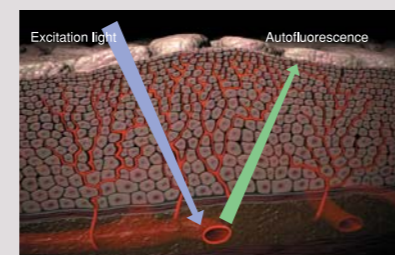
How AFI images are created

When blue light reaches the submucosal layer, strong fluorescence is produced. If there is any change relevant to the development of a lesion such as an abnormal aggregation of capillaries in the superficial layer or thickening of the mucosa, the light is blocked, attenuating the fluorescence. These changes are



Normal mucosa

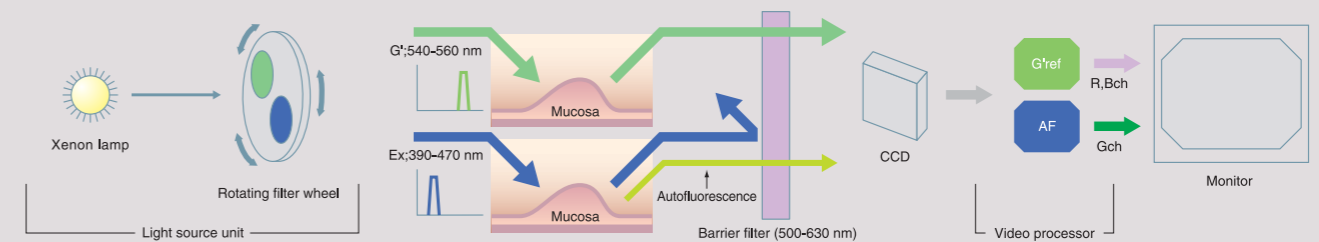
depicted by AFI as color information, so that changes in fluorescence strength between a normal section and a lesion are shown chromatically. Normal sections are depicted with a greenish color tone, while areas where the fluorescence is attenuated are shown with a magenta color tone.



Hyperplastic mucosa

AFI imaging process:

Blue and green light is generated by the optical filters and irradiated on the tissue, and the weak fluorescence is imaged by the processing circuitry.



OLYMPUS CF TYPE FH260AZL/I







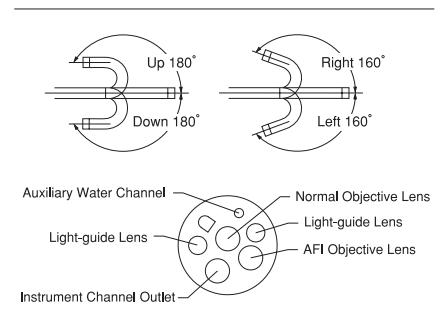
Main Features

- HDTV* imaging reproduces subtle details and textures inside the colon with exceptional clarity and sharpness.
*Available only in combination with HDTV System.
- Two exclusive new image enhancement functions: Auto Fluorescence Imaging, which is designed to help image the difference between normal and tumorous mucosa; and Narrow Band Imaging, which is designed to help emphasize pit patterns without using dye.
- Optical magnification function enlarges images up to 75X (when displayed on a 19-inch monitor) without sacrificing image quality.
- Water jet removes blood and stool inside the colon at the touch of a button, ensuring a clear view at all times.
- Variable Stiffness capability for discretionary adjustment of the insertion tube to suit the internal conditions and contours of the colon.
- Scope ID function retains individual scope information in the memory chip and displays it on the monitor. Also stores settings such as Automatic White Balance to facilitate endoscopy suite management.



Specifications

Optical System	Field of view	Normal: WIDE – 140°, TELE – 80°; AFI: 140°
	Direction of view	Forward viewing
	Depth of field	Normal: WIDE – 7 to 100 mm, TELE – 2 to 3 mm; AFI: 5 to 100 mm
Distal End	Outer diameter	14.8 mm
Insertion Tube	Outer diameter	13.2 mm
Bending Section	Angulation range	Up 180°, Down 180°, Right 160°, Left 160°
Working Length		L: 1680 mm, I: 1330 mm
	Total Length	L: 2010 mm, I: 1660 mm
Instrument Channel	Inner diameter	3.2 mm
	Minimum visible distance	Normal: 5 mm from distal end; AFI: 7 mm from distal end
	Endotherapy accessory entrance/exit position in field of view	  Normal AFI
Water Jet	Water discharge position in field of view	  Normal AFI



Specifications, design and accessories are subject to change without any notice or obligation on the part of the manufacturer.