

PENTAX Medical – Expand your possibilities for optical diagnosis.

The PENTAX Medical platform for high-end endoscopy.

PENTAX
MEDICAL





Choose your system for success.

New possibilities for optical diagnosis with the unique premium series from PENTAX Medical.

High-Definition (HD+) endoscopy and optical diagnosis have become the new standard in clinical care. An increasing number of endoscopists regularly makes use of advanced technologies in their daily work. PENTAX Medical's imaging equipment can meet individual needs and technical requirements. The premium video processor EPK-i7000 and the high performance i10 series endoscopes offer the latest advances in endoscopic imaging technology.

PENTAX Medical provides the best solutions to support physicians all over the world in fulfilling their key roles in the health system. It provides aspiring endoscopists and leading physicians with highly sophisticated equipment and instruments to help sharing their latest findings with colleagues and fellows. Its innovative platform allows you to see better, achieve more and work more effectively.

See better

Exceptional image quality and full i-scan Management.

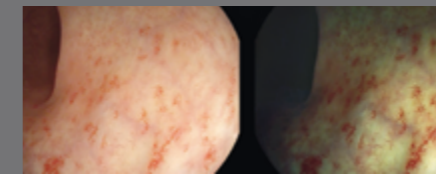
Achieve more

Double your information: more detailed information.

Work easier

With innovative features to support your daily challenges.

"An extraordinary product platform, designed to meet the needs of our customers."



Angiodysplasia rectum



- HD+ high resolution imaging across the full range of endoscopes for better orientation
- Full i-scan Management to support detection, demarcation and complete pattern characterisation
- Close view of the mucosa for diagnostic as well as therapeutic procedures

- State-of-the-art image resolution (HD+) and i-scan functions combined in the Twin Mode for improved assessment of lesions
- Expanded therapeutic options in a standard endoscope: ratio outer diameter-working channel
- Videos, images and voice can be collected at the same time

- Integrated HD+ Video Recording and freeze scan to collect and share clinical findings
- Ergonomic design for improved comfort for users and patients
- Graduated flexibility (GDF) for a smooth intubation of the caecum

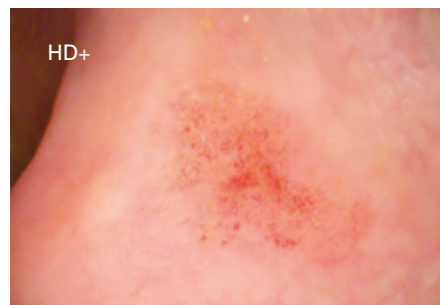
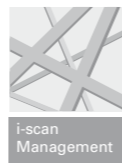


PENTAX Medical – The ultimate video processor: EPK-i7000.

Detect & define

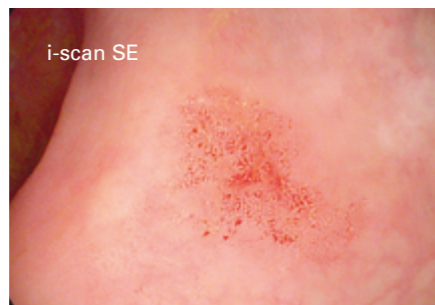
Enhance your endoscopic options with HD+ and full i-scan Management.

Tailor your i-scan settings to current and future needs for enhanced detection and complete pattern characterisation.



Extraordinarily High-Definition (HD+) images and excellent illumination

- Supports fast orientation and detection
- Significant improvement in the visibility and evaluation of minute lesions
- Integrated zoom function for more detailed inspection of suspicious surface structures



Detection and delineation support with i-scan Surface Enhancement (SE)

- i-scan SE retains the natural color tones
- Accentuation of tissue structures at the touch of a button
- Mucosal enhancement potentially supports the detection of flat lesions



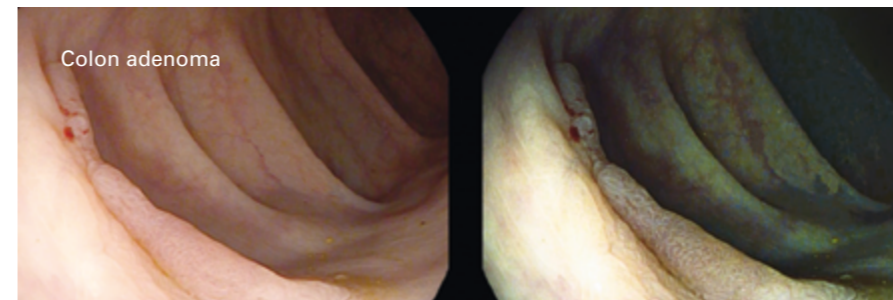
Support in characterisation with i-scan Tone Enhancement (TE)

- Specific imaging technology for further assistance in endoscopic procedures
- Allows more accentuated display of mucosal structures which may support lesion characterisation
- Virtual chromoendoscopy may help to improve endoscopic diagnosis

Teach & assess

Twin Mode: State-of-the-art endoscopy with two images side-by-side.

The PENTAX Medical Twin Mode is an advanced technology that combines leading-edge HD+ quality and i-scan images to support detection and characterisation of lesions.



- Twin Mode doubles your information: different lesion details can be seen and compared at the same time
- Twin Mode allows simultaneous comparison of side-by-side endoscopic images during the entire examination
- Twin Mode facilitates the assessment of detected lesions by direct evaluation of different i-scan modes

Among tutors and speakers, the new Twin Mode is highly appreciated as an educational tool for “building the bridge” between HD+ white light images and i-scan findings.

The simultaneous comparison of enhanced clinical images is useful in teaching the appropriate characterisation of lesions.

Collect & share

Capture your examinations with integrated HD+ Video Recording.

It is all about collecting and sharing the latest scientific findings in the same HD+ image quality as experienced in the endoscopy room.



The EPK-i7000 provides integrated HD+ Video Recording and freeze scan to:

- Collect High-Definition (HD+) videos, images and voice at the same time – at the touch of a button
- Share the most important findings within your scientific network
- Record your reports and personal comments on the HD+ video
- Save cost: built-in Video Recording provides easy & quick recording

Diagnostic proof

Improved support along the diagnostic pathway.

For better detection

	HD+	HD+ and i-scan	p-value	The use of i-scan increases overall polyp detection rates, adenoma detection rates, and increases the number of advanced lesions detected during screening colonoscopy.
n	931	1033		
Number of patients with an adenoma	27%	33%	P< .01	
Number of adenomas per examined patient	.45	.59	P< .01	
Number of non-adenomatous polyps/ examined patients	.51	.61	P=0.02	
Number of advanced polyps/ examined patients	.061	.095	P< .01	

"High-Definition Colonoscopy Combined With i-scan Imaging Technology is Superior in the Detection of Adenomas and Advanced Lesions Compared to High-Definition Colonoscopy Alone."
Gagovic V. et al, Abstract DDW, 2011

For better detection

Results	HD+	Standard*	p-value	With PENTAX HD+ endoscopes, the adenoma detection rate is significantly superior to standard resolution endoscopes.*
Patients	100	100		
Patients with at least one adenoma	38	18	< .0001	
Total number of lesions	145	37	< .0001	
Total number of neoplasias	80	16	< .0001	
Number of flat adenomas	22	3	< .0001	
p<0.0001 Mann-Whitney Test				

"High-Definition Colonoscopy Combined With i-scan Imaging Technology is Superior in the Detection of Adenomas and Advanced Lesions Compared to High-Definition Colonoscopy Alone."
Gagovic V. et al, Abstract DDW, 2011

For easier characterisation

Pit pattern	Hyperplasia	Neoplasia	Total	Histology could be predicted with a high sensitivity (98 %) and a high specificity (100 %) using i-scan TE.
Hyperplasia pit pattern I/II	63	2	65	
Neoplastic lesions pit pattern III/IV/V	0	80	80	

"High-definition colonoscopy combined with i-scan is superior in the detection of colorectal neoplasias compared to standard video colonoscopy."
Hoffman A. et al, Endoscopy 2010

For more accurate diagnosis in GERD

	HD+	i-scan	Lugol's solution	i-scan as well as Lugol's solution (chromoendoscopy) significantly improve the identification of patients with oesophagitis.
Number of patients with macroscopically defined oesophagitis	9	12 ²	25 ¹	
Number of small lesions	21	58 ¹	85	
¹ Significant p<0.01				
² Not significant p<0.01				

"High-definition endoscopy with i-scan and Lugol's solution for more precise detection of mucosal breaks in patients with reflux symptoms."
Hoffman A. et al, Endoscopy 2009

For reliable surveillance in Barrett's oesophagus

i-scan	Histolog. Barrett	Histolog. Ø Barrett	Total	Under the guidance of i-scan, targeted biopsies are reliable for predicting Barrett's epithelium.
Type III-IV	26	2	28	
Type I - II	2	13	15	
Sensitivity: 92,8%, Specificity: 86,7%, Accuracy: 90,1%				

"Acetic acid guided biopsies compared with high-definition endoscopy and i-scan guided biopsies in the detection of Barrett's oesophagus."
Hoffman A. et al, Poster Presentation, DDW 2010

A range that meets your individual needs.



EPK-i7000

The new premium HD+ video processor.

As fully equipped flagship model, the new EPK-i7000 video processor supports innovative and advanced endoscopic diagnosis. The EPK-i7000 is designed to provide individual solutions to master your daily challenges, to help with your research and to share your clinical findings.



i10 endoscope series

High-performance.

The PENTAX Medical i10 endoscope series delivers images of extraordinarily high resolution thanks to a high performance CCD chip. It enables you to fully exploit HD+ performance, offers expanded therapeutic options and gives a close view of mucosal details. The i10 series is the natural choice for endoscopic procedures.



EPK-i5000

From routine applications to challenging examinations.

The PENTAX Medical EPK-i5000 combines excellent illumination and HD+ quality at an optimal price-performance ratio. Ideal for practitioners who require routine functions offered by proven imaging technology in their day-to-day clinical work.



90i and 90K endoscope series

The redefinition of High-Definition.

The PENTAX Medical 90i and 90K endoscope series are the optimal choice for an exceptional high resolution image. Combined with excellent illumination, they support better orientation and detection in endoscopic procedures. With the 90i endoscope series you can fully experience HD+ during routine examinations.

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