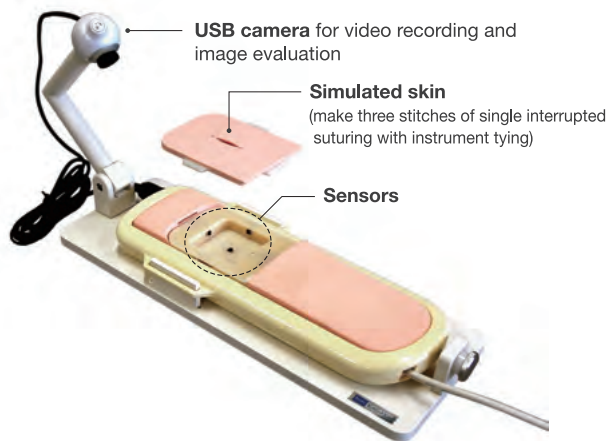


# Suture Evaluation Simulator



Simple interrupted skin suturing can be evaluated quantitatively by operation time, tension and force added to the skin, evenness of stitch placement as well as that of each stitch and the degree of the wound closure.



## M57 Suture Evaluation Simulator



### Set includes:

- 1 unit base
- 1 skin suturing unit
- 40 simulated skin
- 1 USB unit
- 1 software (CD) for set up
- 1 demonstration movie (CD)
- 1 carrying case

\*PC is not included in the standard set

## M57B Suture Evaluation Simulator (PC set) Software installed

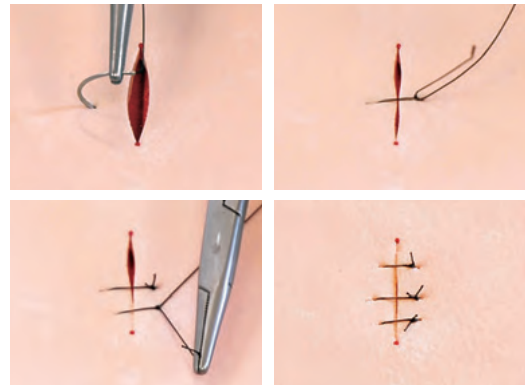
Replacement parts 11230-010 simulated skin 40 pcs

## Objective and quantitative suturing evaluation.

Make three single interrupted stitches with instrument tying.



The sensors measure force and tension to the skin.

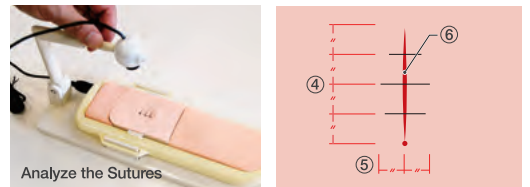


Evaluation items

- ① Time ② Force on the tissue ③ Suture tension



## USB camera for Image evaluation

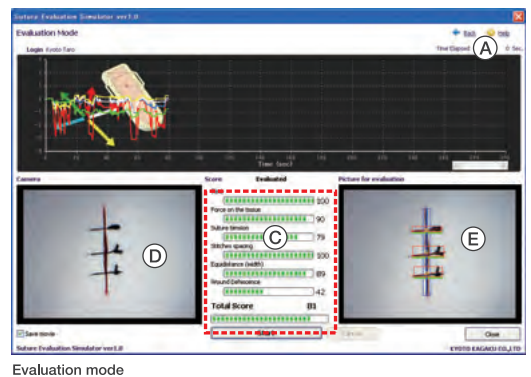


Evaluation items

- ④ Stitches spacing ⑤ Equidistance (width)  
⑥ Wound Dehiscence



Total score is given integrating six evaluation items.



A) Time elapsed

B) Chart data (Movement of the skin)

C) Scores

D) Camera (Image captured by the USB camera)

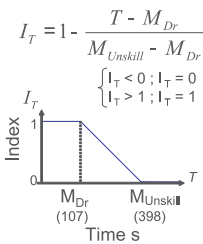
E) Evaluation image (The picture evaluated for giving scores)

## Evaluation Method: Quantification and Grading

The basic idea of "good" sutures that earn high score is sutures which close wounds properly giving minimum impact to the patients.

Through research and experiments, six evaluation items are recognized, normalized and then made in a formula to calculate scores.

If necessary, weighing coefficients of the formula can be modified by the administrator.



Time		
	Unskilled Person	Surgeon
Time [s]	384	122
Time (Normalize)	0.05	0.95

### Platform Information

It is prerequisites for using suture evaluation simulator.  
Microsoft Windows Vista XP (Over SP2)  
Microsoft Windows Vista (Over SP1)

### Hardware

CPU: Intel Pentium III Over 1GHz  
Memory: Over 1GB  
Display: High Color (Over 16 bit)  
Desktop: Over 800 x 600 (Recommended: over 1024 x 768)  
Drive: CD-ROM Driver (For Installation)  
Interface: USB 2.0 Port (For Connection of the Suture Simulator)

### Software

Windows Media Player over 9  
Internet Explorer over 6

**M57C** **New**

## Laparoscopic Suture Evaluation Simulator

*A new suture evaluation simulator for laparoscopic surgery is now available.*



### M57C Laparoscopic Suture Evaluation Simulator



#### Set includes:

- 1 M57C suturing unit
- 40 simulated skin
- 1 USB unit
- 1 software (CD) for set up
- 1 demonstration movie (CD)

\*Training Box and PC are not included in the standard set

Specifications are subject to change.

### M57C2 Laparoscopic Suture Evaluation Simulator (PC set)

Software installed

Replacement parts 11230-010 simulated skin 40 pcs

## Ultrasound Examination

US-3

Abdominal Intraoperative & Laparoscopic Ultrasound Phantom

## "IOUSFAN"

Japanese Patent No. 3650096

Innovative phantom simulating abdominal open intraoperative and laparoscopic ultrasound

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