



Laparoscopic Suture Simulator -Assessment System-

Real and objective assessment to develop first class surgeons

Laparoscopic Suture Simulator evaluates skills in laparoscopic intestinal suture, as well as simple skin suture and forceps training. Simulate true-to-life scenarios by using real clinical devices, life-like softness and anatomy of the intestinal wall and dermis.

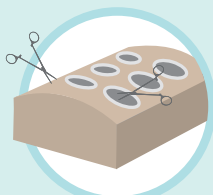


FEATURES

- 1 | Innovative assessment criteria provide quantitative and objective feedback
- 2 | Individual assessment data can be saved for reviewing and analysis
- 3 | True-to-life simulated tissue that provides convincing hands-on experiences.
- 4 | Actual clinical instruments can be used.
- 5 | A variety of training options
- 6 | Convenient all-in-one unit

SKILLS

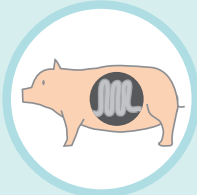
- | Laparoscopic intestinal suture
- | Skin suture under direct vision
- | Handling of laparoscopic instruments



Box trainer only

Disadvantage Limited to simple tasks

Advantage Easy to use



Wet-lab

Disadvantage Hard to set & clean up, concerns in ethical issues

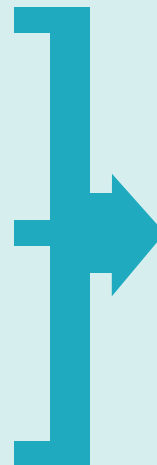
Advantage Realistic



Virtual reality simulators

Disadvantage Lack of realistic feel

Advantage Objective skills assessment



Integrating Advantages of Different Training Methods

- 1 | Easy to use
- 2 | Realistic tissue response
- 3 | Objective feedback

Laparoscopic Intestinal Tract Suture

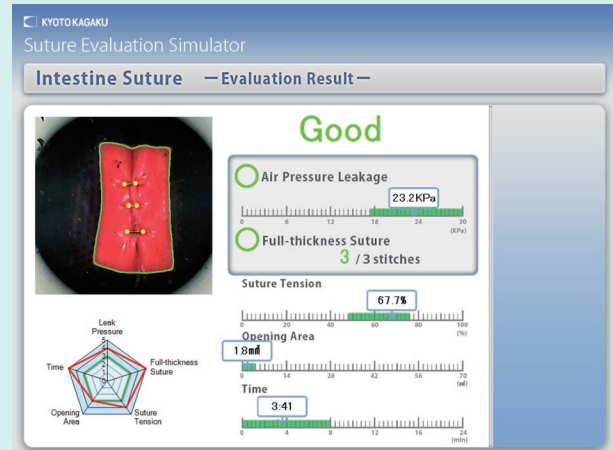
1 Quantitative Feedback combined with Realistic Hands-on Experience

Judging success or failure

- 1 Is the wound sutured without a leak?
- 2 Is suture completed through muscular layer to mucosal layer?
- 3 Is ligature appropriate for suture?
- 4 How much open area is there in mucosal layer?
- 5 How long does it take for suturing procedure?

The system utilizes five criteria to evaluate laparoscopic suturing skills.

Each criteria has an "acceptable" range based on expert surgeons to help improve performance.



Air leak from the sutured area can be checked by applying air pressure on the intestinal tract sheet.

* Uemura M et al. Surg Endosc. 2014. PMID: 25005015 / DOI: 10.1007/s00464-014-3681-9

2 Life-like Intestinal Tract

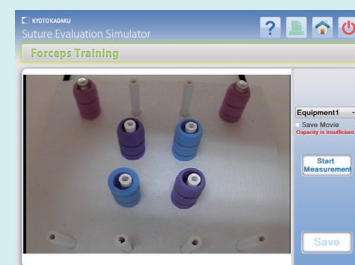
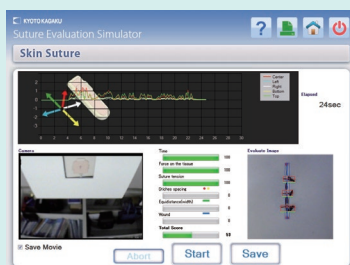
Intestinal tract has four layers with respective characteristics. When holding with forceps and suturing, these four layers react like real tissue.



Laparoscopic Forceps Training

Evaluate simple interrupted skin suturing via quantitative assessment criteria. The Objective evaluation encourages honing of skills.

Forceps Training mode enables dry box training to handle laparoscopic instruments.



DESCRIPTIONS

SPECIFICATIONS

Size: W50 x D110 x H160 cm Weight: 93 kg/205lbs Power: AC100-240V, 50/60 Hz
W19.7 x D43.3 x H63 inch Power Consumption: 180 VA

SET INCLUDES

1 monitor	1 video camera for procedure recording
1 touch-monitor	1 torso body
1 video camera for assessment (intestinal tract suture)	1 unit base
1 video camera for assessment (skin suture)	1 printer
	1 key board

MATERIALS

Soft resin
Latex free
1 set of trocar
1 container
1 instruction manual
30 pieces of suturing sheet (intestinal tract)
40 pieces suturing sheet (skin)

RECOMMENDED DEVICES

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Forceps are not included.

REPLACEMENT PARTS

11395-010	30 pieces of suturing sheet (intestinal tract)
11230-010	40 pieces suturing sheet (skin)