

# Extracorporeal Kegel exercise device HnJ-7000 for Hospital use



Urinary Incontinence Equipment

# Urinary Incontinence

[www.furunmedical.com](http://www.furunmedical.com)

## The necessity of biofeedback

### ● Difficulty of the Pelvic Floor Muscle Exercises

- Pelvic floor muscles are not only invisible, but also not usual muscles to use at ordinary time, so It is very difficult for the people to exercise by themselves.

– More than 30% of patients do not recognize the pelvic floor muscles.they exercise not correctly so that they worsening the disease(symptom).

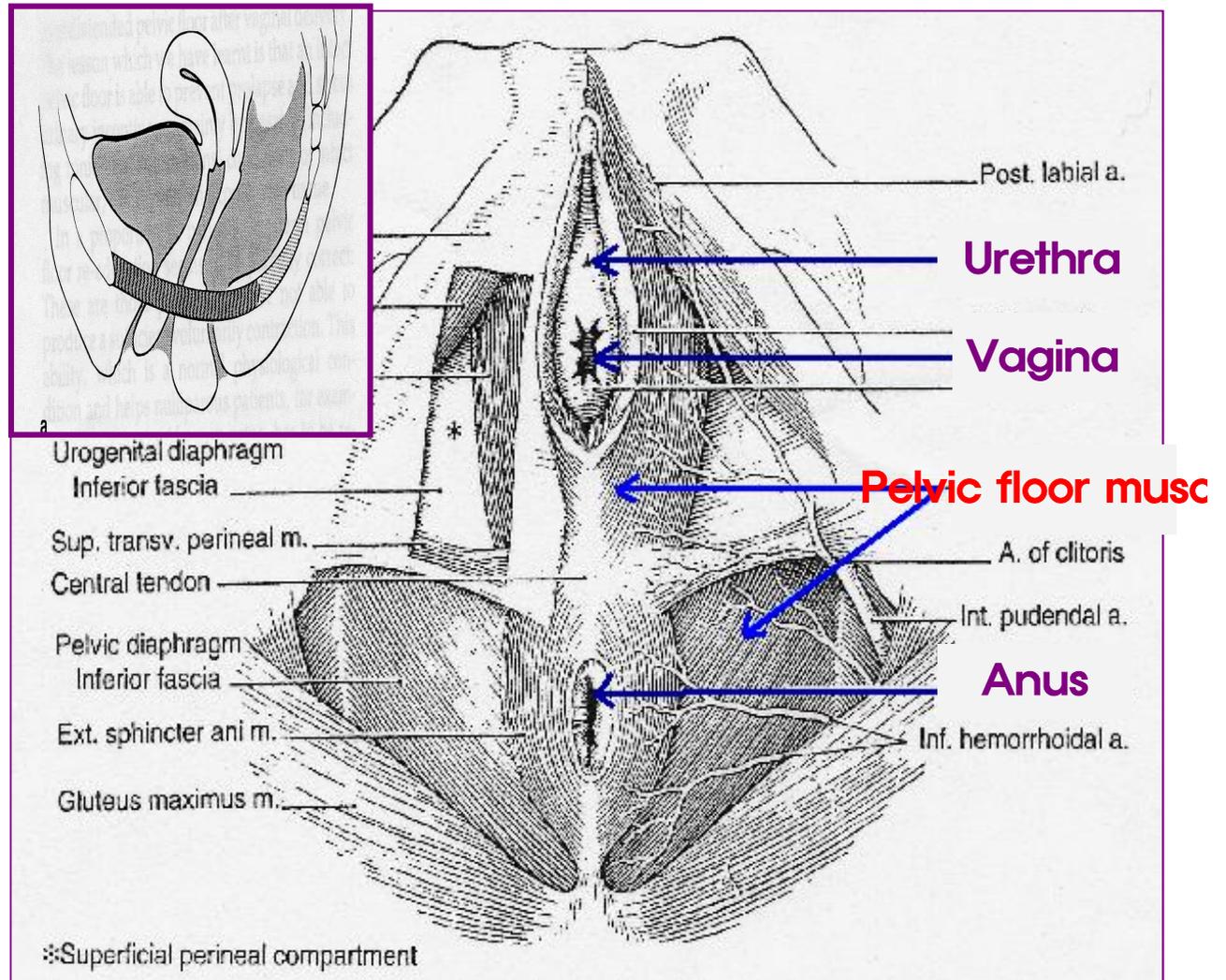
### ● The necessity of biofeedback

👉 Biofeed back shows the actual training(moving) status of the pelvic floor muscle to the patients through computer monitor, so that it encourage and increase patient's ability to self contract and relax pelvic floor muscles.

👉 Can **activate** both **fast and slow muscle** by suggesting various kinds of the target exercising graph, it **increase** not only **max contraction** but also **relaxing muscles** so that it **maximize therapy effect**.

# Pelvic floor Muscles

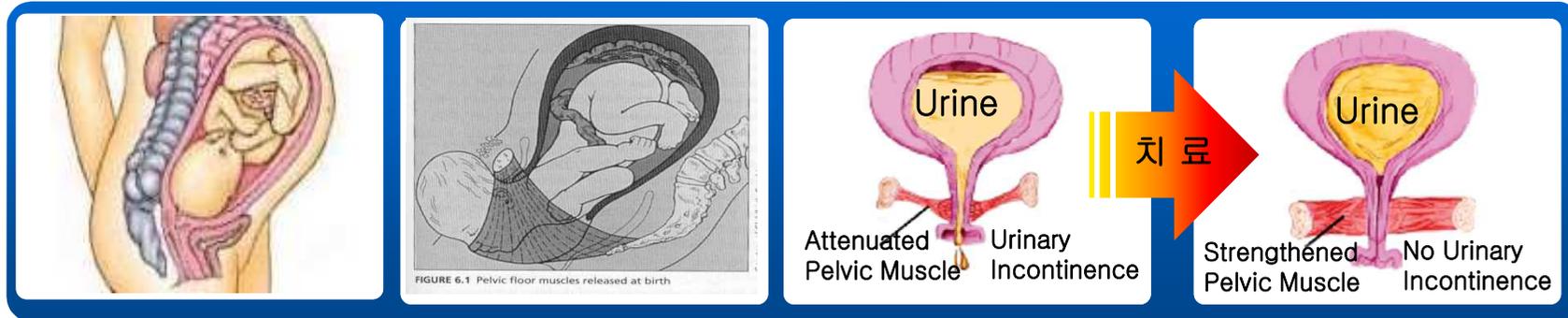
- Support Pelvic organs like a hammock
- Control urine and feces.
- The function of giving birth to a baby and Should need to be recovered
- It plays an important role in sexual function.
- Propping role against abdominal pressure.



## Summary of the product

- effectiveness : urinary incontinence, fecal incontinence, constipation, improve sexual function

- Urinary incontinence: more than 40% of adult women suffer a lot, it can be recovered by strengthening pelvic floor muscles which is weakened by birth and aging



- Working mechanism

- Detecting patient's weight by sensor, and apply proper load(pressure) to the patient's pelvic floor muscle, system detect the contraction power of the patient when patient contract pelvic floor muscle and it display to the monitor and save to the data base

# Comparison table with global competitors

- For Hospital Use

Classification	Biofeedback device (Probe insertion type)	Electromagnetic device	Biofeedback device (without probe insertion)
	Global Competition Company		Unique product in the world
Shape & Function			
How it works	Insert probe into vagina / Active Exercise	No insertion / Magnetic stimulation	No insertion / Active Exercise
Ease of use	Take off / Probe insertion <b>(X)</b>	Put on / No insertion <b>(O)</b>	Put on / No insertion <b>(O)</b>
Muscle strengthening	No-load training <b>(O)</b> (active type)	Magnetic stimulation <b>(X)</b> (passive type)	Excellent <b>(O)</b> weight training (active)
Muscles control ability	good <b>(Δ)</b>	None <b>(X)</b>	Excellent <b>(O)</b>
Learning	Difficulty <b>(Δ)</b>	None <b>(X)</b>	Easy to learn <b>(O)</b>

## Working principle(Bio feed back)



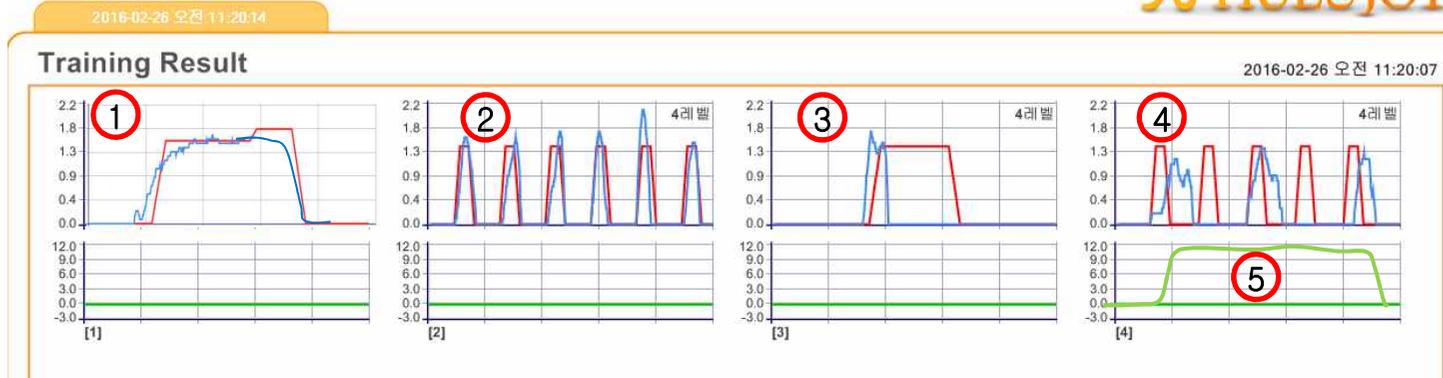
① Put the proper pressure to the pelvic floor muscle with cloth on (10~12kg), **let patient know exact muscle for exercise**, make the environment for exercise.

② Detect the strength of the muscle in extracorporeal when patient contract pelvic floor muscle against applying load(pressure) by system

③ The strength of the pelvic floor muscle is real time Displayed through monitor after amplified and signal processed (1kgf : is the power to raise **water 1,000ml.**)

**Can recognize exactly** how to **contract and relax** the pelvic floor muscle with cloth on, and increase and recover the contraction power of the pelvic floor muscle.  
(Recover ability to withstand urine when Urinary incontinence, oversensitive bladder )

# Bio feed back screen



	contents	Etc
1	The control status of the slow muscle is good. ( maintain contraction till end of the target graph) (Pelvic floor muscle control ability is good. Can support bladder and urethra continuously )	
2	The control status of the fast muscle is good. (Can react properly against all multi target graph) (Can maintain quickly bladder and urethra when exercising jump rope, cough)	
3	The maintaining ability of the slow muscle is not good. (Have to do exercise more for maintaining contraction status till end of the target graph)	
4	The control status of the fast muscle is not good. (Can not react properly against all multi target graph) (be careful exercising jump rope, cough)	
5	Too big abdominal pressure (be raised up more than 60% of the graph) (Put too big abdominal pressure when doing pelvic muscle exercising- need to be careful)	

# Analysis Measured data



## ● Pelvic floor muscle strength

구 분	Low	Normal	Good	비 고
result	1.0kgf lower (power to support 1ℓ of the water – can support 2times of the bladder weight)	1.0 ~ 3.0kgf (power to support 1ℓ ~3ℓ of the water)	3.0kgf over (power to support 3ℓ of the water – can support 6times of the bladder weight)	
meaning	Need Kegel Exercise	careful	Muscle is OK	

## How to use

- ① The best way is to exercise every day , But due to the inconvenience of the patient must need to go to hospital everyday, need 2 times therapy in every week at least.
- ② 1 time therapy : 10 minutes/time . More than 20 minutes is not easy for patient.
- ③ Let patient know exact muscle for exercise by pressing around 10kg load to the pelvic floor muscle, and patient need to contract muscle against this load  
Normally patient easily can do within 2 ~3 minutes.
- ④ the contraction ability will increase after 3~4 times therapy,  
symptom start to get better after 5 times therapy .
- ⑤ Recommand : more than 12 times therapy.
- ⑥ It is easy for patient to do Kegel exercise in home after finish therapy in hospital because patient know already how to do Kegel exercise by our system .

# Clinic trials(test)

- Samsung Medical center(Seoul) clinic trial center
- Asan Medical Center(Seoul) Clinic trial center



**1.Name of the Article :Pelvic floor muscle training using an extracorporeal biofeedback device for female stress urinary incontinence**

**2.Number of test patients : 100 persons**

**3.Used device : HnJ-5000 (for Hospital use)**

**4.conclusion**



The result of this research and study significantly improved all urinary incontinence symptoms and significantly improved pelvic muscle strength.

In addition, 98% of the patients benefited from treatment,

94% were satisfied with the treatment, and 94% of the patient

willing to recommend this treatment to the patient who have same symptom.

Therefore ,non insertion type biofeedback system is effective without inconveniences caused by insertion of probe into the vagina

It is a safe therapy, by noninvasive method that can be applied to patients with stress incontinence

## Benefit of the device : Urinary Incontinence



1. It is very easy to use because it is used with **cloth on**,
- 2.the pelvic floor muscles are pushed about 10kg to inform patient the location of the pelvic floor muscles, Patient need to contract against this pressure, So it is **easy to follow..**
- 3.There is **no fear of infection** because there is no probe to be inserted into the vagina,  
Also it be convenient because **no need for advance preparation work.**
- 4.Cost savings due to no consumable components.
- 5.**Increase hospital profit** due to the 10 minutes of **short treatment time and insurance**



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