



SPECIALISTS IN THE MANUFACTURE AND DESIGN OF ACTIVE SURGICAL IMPLANTS

### The Finetech-Brindley



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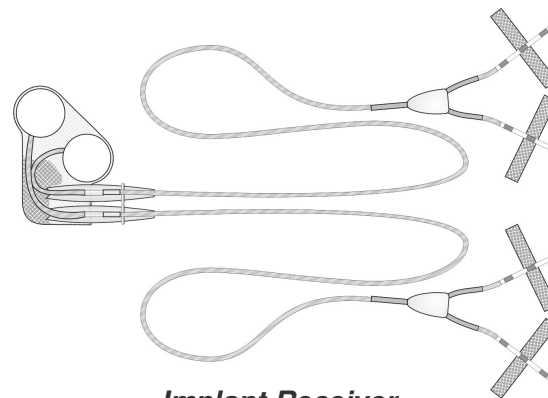
Restore Bladder Control After Spinal Cord Injury

### WHAT IS THE Finetech-Brindley SYSTEM?

The **Finetech-Brindley System** is a proven medical device which can restore

bladder function to people with spinal cord injuries. It can also help with bowel evacuation and, in some men, can promote penile erection.

The original **Finetech-Brindley System** was developed in 1982 with the support of the Medical Research Council of Great Britain.



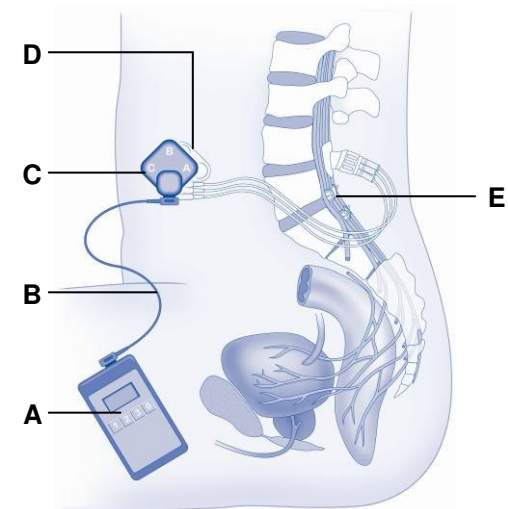
Implant Receiver

### HOW IT WORKS?

The **Finetech-Brindley System** has both internal and external parts.

1. The Controller (A) sends power and control signals through the Transmitter Lead (B) to the Transmitter Block (C).

2. The Implanted Receiver (D) converts the power and control signals received into electrical stimulation signals.
3. These signals are sent in bursts to the Electrodes (E) to stimulate the nerves that lead to the bladder and bowel.
4. These signals cause the muscles of the bladder and urethral sphincter to contract. In the gaps between the bursts, the bladder is still squeezed but the sphincter muscles relax, allowing the bladder to empty.



## **WHAT ARE THE BENEFITS?**

The **Finetech-Brindley System** has a number of benefits for patients. These may include:

- Elimination of urethral catheters
- Decrease in number of urinary tract infections
- Increased bladder capacity
- Improved bladder emptying
- Improved urinary continence
- Improved bowel function
- Ability to promote penile erection
- Greater independence
- Enhanced quality of life

## **A GUIDE TO IMPLANT PROCEDURE**

### **What happens during the procedure?**

Prior to surgery, some pre-operative testing is required. This generally takes two or three days, usually as an out-patient, and takes place over a period of several weeks.

Surgery under general anaesthesia is required to implant the internal parts of the system. This procedure takes about 4-5 hours and typically requires two incisions on your back and two smaller incisions, one on your side and one on your abdomen. These incisions generally heal within three weeks.

During the procedure, the nerves going to and from the bladder are identified using a surgical nerve stimulator. The flexible electrodes are then placed on the sacral nerves going to the bladder and the nerves coming back from the bladder are divided (posterior rhizotomy). The thin, flexible cables from the electrodes are then fed around under the skin of the side of the body to the implant receiver which is placed under the skin of the abdomen.

### **What happens after the procedure?**

After surgery, you will probably stay in bed for two or three days before the **Finetech-Brindley System** is programmed to your individual needs. After these initial tests and adjustments you will be able to use the system and you will be discharged shortly after.

Your doctor will maintain contact with you as an out-patient over the next few weeks to check that the device is working properly.

A follow-up session occurs about three months later followed by annual checkups for fine-tuning of the system to keep it optimised for your needs.

## **IS IT RIGHT FOR YOU?**

If you are interested in this system and wish to investigate further, the next step is to visit a Spinal Cord Injury Centre for a clinical evaluation session. As a guideline, the most suitable candidates are people who:

- Are skeletally mature
- Are neurologically stable
- Have intact reflex bladder contractions
- Have had a clinically complete spinal cord lesion for at least a year

## **Contact us**

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