

**Toyobo's Nerbridge™, a Conduit for peripheral Nerve Regeneration,  
Has Received Permission for Manufacturing and Marketing from  
Japan's Ministry of Health, Labour and Welfare**

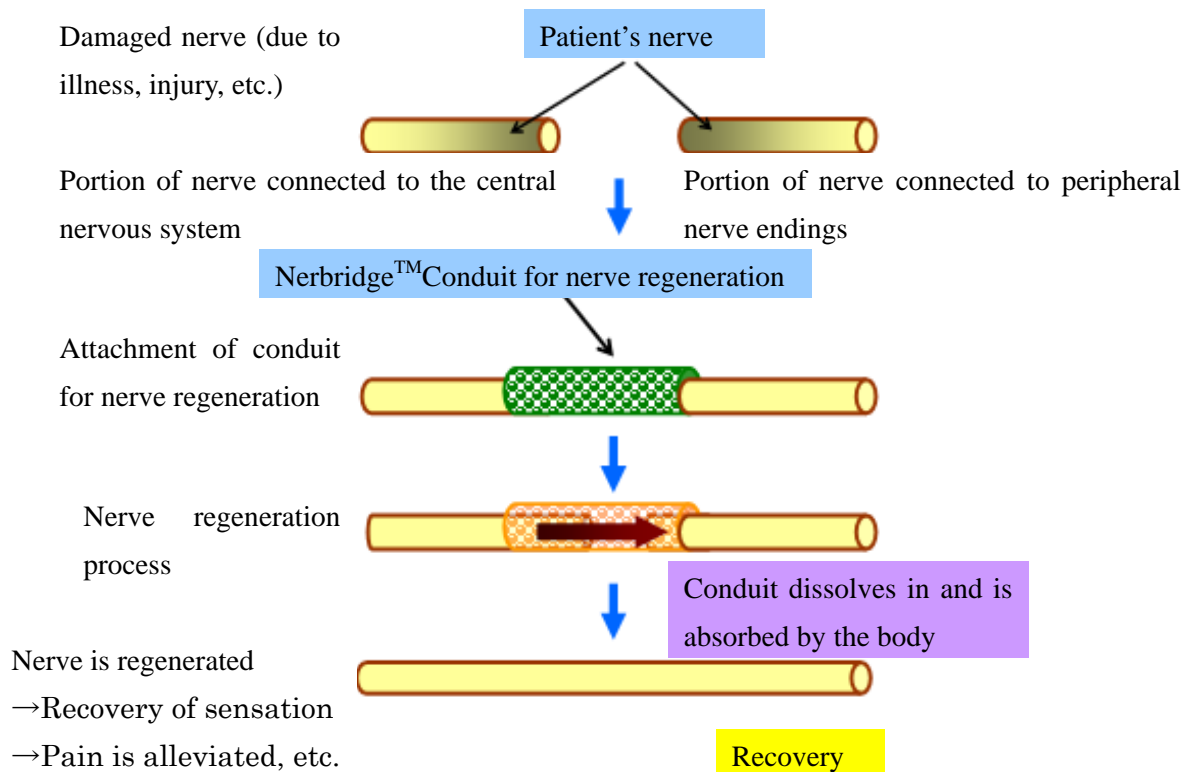
On March 22, 2013, Toyobo received permission from Japan's Ministry of Health, Labour and Welfare to manufacture and sell Nerbridge, a new medical treatment device for the regeneration of damaged nerves.

**1. About Nerbridge™ Nerve Regeneration Conduits**

This is the first medical treatment device developed in Japan for the regeneration of peripheral nerves that have been severed or damaged because of injuries.

- (1) Nerbridge™ conduits are inserted around peripheral nerves (nerve gaps) that have been severed or otherwise damaged and then fastened. Their function is to induce the portion of the nerve connected to the patient's central nervous system to regenerate and grow in the direction of the portion of the nerve connected to the patient's peripheral nerve endings. In addition, since Nerbridge™ conduits are composed of polyglycolic acid, a new collagen, and other superior materials that decompose within the body, they dissolve and are absorbed by the patient's body in about three months.
- (2) Nerbridge™ conduits make use of a newly developed medical collagen (NMP Collagen PS produced by Nippon Meat Packers, Inc. (NMP) ). This collagen is applied to the inside of the conduit and it makes it easier to attract blood vessels to grow in the conduit and thus provide necessary nourishment for the regeneration and growth of peripheral nerves.

[Schematic diagram]



Process of Treatment Using Conduits for Nerve Regeneration  
(schematic diagram)

## 2. Effectiveness of Nerbridge™ Conduits

- (1) Treatment using Nerbridge™ conduits is equally effective or more effective (as evidenced by the recovery of sensation and other attributes) than the previous techniques of autograft and nerve suture.
- (2) Unlike autograft, which requires the extraction of a peripheral nerve from a healthy portion of the patient's own body, the burden on the patient is significantly lightened, and it is possible to shorten the time needed for surgery.
- (3) Special surgical equipment (micro-surgical devices, etc.) is not needed, and, therefore, treatment is possible at primary emergency hospitals. Nerbridge™ conduits also contribute to the quality of life of patients by

making early recovery possible.

### 3. Lineup of Nerbridge™ Types

The conduits are 55mm in length and are available in eight thicknesses, ranging from about 0.5mm to 4.0mm, with a 0.5mm pitch.

### 4. Sales Channels

Nerbridge™ conduits are sold to medical institutions through Senko Medical Instrument Manufacturing Co., Ltd.

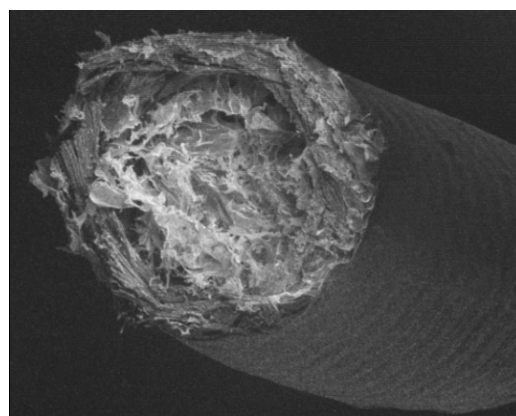
### 5. Outlook

For the time being, Toyobo is marketing these devices for use limited to the regeneration of peripheral nerves in the hands, including the fingers. In addition, although Toyobo has received permission from the Ministry of Health, Labour and Welfare for the manufacturing and marketing of Nerbridge™ for the regeneration of peripheral nerves (excluding dura matter nerves, such as those in the brain and spinal cord), Toyobo is scheduled to structure cooperative arrangements with expert medical institutions, and, when preparations have been completed, will begin step-by-step expansion beyond the treatment of the nerves of the hand, including the fingers, to other important regions.

Toyobo is aiming for sales of Nerbridge™ of ¥5.0 billion annually by 2015.



Outside view of a Nerbridge™ conduit



Cross section of a Nerbridge™ conduit

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