

## THE FINGER -- an aid for Digital Rectal Stimulation

### Background

Individuals with a spinal cord injury above the conus medullaris have a hyperreflexic bowel. There is increased colonic wall and anal tone and the external anal sphincter (EAS) remains tight thereby retaining stool. A multi-faceted management program is implemented to restrain the bowel. A key intervention is Digital Rectal Stimulation (DRS) in which a gloved, lubricated finger is inserted into the rectum then slowly rotated to stimulate increased reflex muscular activity and to relax the external anal sphincter. Thirty-five to 50% of individuals with neurogenic bowel dysfunction utilize DRS.

### Methods/Overview

A client with a C3 AIS C spinal cord injury identified independence in bowel management as a pre-discharge goal. He had good dexterity in his right hand and sufficient upper body control to be able to clean himself after toileting when sitting on a padded raised toilet seat. However, he did not have enough reach to insert his finger beyond his anus to perform DRS. The client was shown the Royal Grip Digital Bowel Stimulator but it was much longer than he needed plus was relatively expensive. Thus, a custom device was made. A prosthetic finger was formed using Rolyan thermoplastic beads molded around the third digit of his right hand. The Finger was made 2" longer than his digit and the distal end was gently curved.

### Results

To perform digital stimulation, the client followed the usual procedures of gloving the hand and lubricating The Finger; the stretchiness of the latex glove accommodated the length of the prosthetic without difficulty. He was easily able to insert The Finger into the anal canal and perform the necessary motions as often as he needed and in a timely manner; he could check himself to know when bowel evacuation was finished.

### Conclusion

Independence in bowel routine provides dignity, privacy and efficiency for an intimate function. A prosthetic finger made from thermoplastic beads was an effective assistive device for a client needing only 2"- 3" of extra reach to perform digital rectal stimulation. The thermoplastic is non-porous, lightweight and easily formed. Fitted snugly onto the digit, it does not require strapping. The small size of The Finger makes it discreet for travel. The cost for materials is approximately \$3.00. As a prosthetic device, there is minimal sensory feedback through the digit and clients who have absent sensation over the anal area may have difficulty situating the device. The Finger cannot be used for Digital Removal of Faeces so clients requiring this procedure to complete bowel evacuation would need assistance. Further trials of The Finger with spinal cord and other neurological clients with upper motor neuron bowel syndrome is recommended.

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