

## The use of double abdominal braces in knee replacement

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### BACKGROUND

The correct cementing technique for knee replacement involves maintaining the knee in extension for a protracted period of time to compress the cement effectively during polymerisation.<sup>1,2</sup> Wound closure can be completed in flexion or extension with no difference in functional outcome<sup>3</sup> but is often also completed with the leg maintained in extension due to decreased tissue tension. With the increasing average mass of patients, holding a leg in extension can often involve significant energy expenditure. We report an effortless, efficient technique for holding the knee in extension for an indefinite period without the need for surgeon or assistant exertion.



**Figure 1** Default position of a knee during total knee replacement with two braces present

### TECHNIQUE

An abdominal brace is used routinely during knee replacement as a foot support to maintain the knee in flexion. Placing a second, larger abdominal brace distally offers no negative interference to surgery (Fig 1). However, when the leg is rested across the brace, it pressurises the knee into extension (Fig 2). A smaller brace positioned distally at a greater height can perform the same function.

### DISCUSSION

We have used this technique in every primary knee replacement performed over the last 18 months. It has facilitated an increased ease of procedure, negating both assistant discomfort when operating on large patients and the need for an assistant during closure. It is now used as standard operative practice by the senior author.



**Figure 2** Use of a second brace to maintain a knee in extension

### References

1. Laskin RS, Riegèr MA. The surgical technique for performing a total knee replacement arthroplasty. *Orthop Clin North Am* 1989; **20**: 31–48.
2. Insall JN. Total Knee Arthroplasty. In: Insall JN, ed. *Surgery of the Knee*. Philadelphia, PA: Elsevier; 1984.
3. Kavarthapu V, Shenava Y, Koka R, D'Arcy JC, Garikipati R. Closure of knee replacement wound in flexion or extension: does it matter? *J Bone Joint Surg Br* 2004; **86**(Supp III): 278.

## Bladder wrap: a technique to restore continence in an incompetent vesicocutaneous diversion

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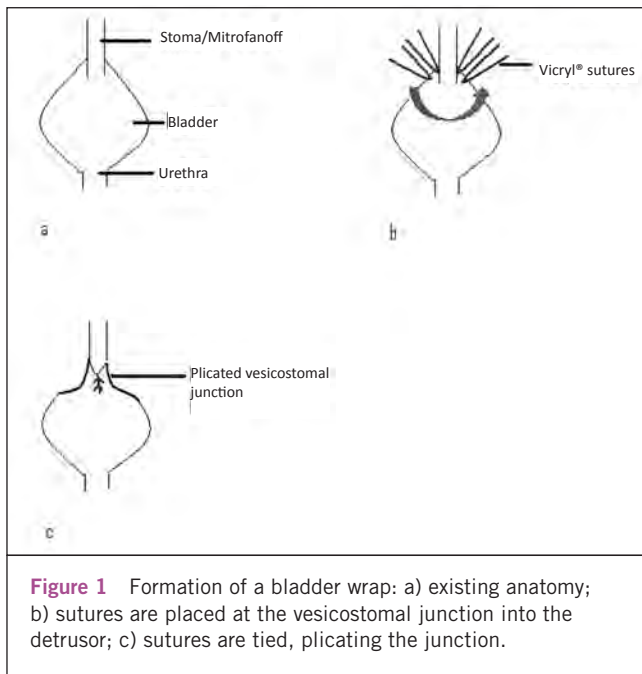
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### BACKGROUND

Paul Mitrofanoff popularised the flap valve technique for creating continent urinary diversions.<sup>1</sup> The eponymous technique allows the use of several tissues to create a catheterisable vesicocutaneous diversion including the vermiform appendix, small/large bowel and fallopian tubes. Three main techniques are used to maintain continence of the stoma. These involve tunnelling of the proximal portion of the diversion into the bladder to form a flap, nipple or hydraulic valve, with the flap being the most common.<sup>2</sup> Urinary leak occurs in approximately 4% of patients after the flap procedure and is independent of the tissue used.<sup>3</sup> These patients often require revision of the diversion or creation of a new stoma altogether.<sup>4</sup> Here we describe a less radical technique.

**TECHNIQUE**

After dissection through the abdominal wall, the anastomosis between the bladder and stoma is identified. The lateral edges of the bladder are plicated around the anastomosis in a manner similar to that of a Nissen fundoplication using 3/0 Vicryl® sutures (Ethicon Inc, Somerville, NJ, US) (Fig 1). The surgeon must leave enough slack on the suture to ensure easy passage of a 12Fr LoFric® catheter (Astra Tech, Stonehouse, UK) into the bladder. Having had this procedure, three patients regained continence with a maximum follow-up of 16 months.

**DISCUSSION**

The technique achieves continence by acting as a compression valve around the proximal anastomosis as the bladder fills. This technique is described in the literature only in the prevention of vesicoureteric reflux in animals.<sup>5</sup> We advocate its use as first line management in patients with an incontinent vesicocutaneous diversion.

**References**

1. Mitrofanoff P. Trans-appendicular continent cystostomy in the management of the neurogenic bladder. *Chir Pediatr* 1980; **21**: 297–305.
2. Ardeli PU, Woodhouse CR, Riedmiller H, Gerharz EW. The efferent segment in continent cutaneous urinary diversion: a comprehensive review of the literature. *BJU Int* 2012; **109**: 288–297.
3. Castellán MA, Gosálbez R, Labbie A *et al*. Outcomes of continent catheterizable stomas for urinary and fecal incontinence: comparison among different tissue options. *BJU Int* 2005; **95**: 1,053–1,057.
4. Welk BK, Afshar K, Rapoport D, MacNeily AE. Complications of the catheterizable channel following continent urinary diversion: their nature and timing. *J Urol* 2008; **180**(4 Suppl): 1,856–1,860.
5. Cohen RC, Moores D, Cooke-Yarborough C, Herrmann W. Laparoscopic bladder 'wrap' technique for repair of vesicoureteric reflux in a porcine model. *J Pediatr Surg* 1999; **34**: 1,668–1,671.

## Finger trocar: a safe method for entering the peritoneal cavity during laparoscopy in obese patients

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**BACKGROUND**

We report an easy way of entering the peritoneal cavity in obese patients during laparoscopic antireflux surgery, which can be challenging.

**TECHNIQUE**

A transverse incision is made on the skin five finger breadths away from the xiphoid process in the midline. The incision is deepened until the anterior rectus sheath is located. A 10mm transverse incision is made on the anterior rectus sheath. Using the surgeon's finger in a rotating and dissecting manner as a trocar, the peritoneal cavity is entered. Then a 10mm non-bladed trocar port is inserted into the peritoneal cavity and pneumoperitoneum is created. Once the procedure is completed, the anterior rectus sheath defect is closed with size 3/0 polyglactin sutures on a J needle and the skin is closed.

**DISCUSSION**

In this method, finger tactile sensation guides entry into the peritoneal cavity, minimising injury to internal organs. This sensation is lacking in standard laparoscopic visual pneumoperitoneum creation techniques. Our method is safe and quicker than other methods. If the anterior rectus sheath incision is >10mm, the wound can leak gas. This can be minimised using a balloon or gel port. The incision on the rectus sheath should be precisely in the midline. Otherwise one will find the thick rectus muscle and posterior rectus sheath, which may provide resistance, and there is a risk of bleeding. When the posterior sheath is difficult to enter, an artery clip may be used carefully along the side of your finger to make a tiny hole or to provide countertraction by grasping it. An opening can then be created safely in the posterior sheath/peritoneum.