Internal Pouches - 'Continent Reservoirs

A neobladder is a pouch that reconnects to the urethra so that natural voiding is possible. An ileal conduit is an abdominal stoma that drains into an external bag or appliance.

Internal continent reservoirs are pouches and outlets fashioned from various sections of gastrointestinal organs (usually bowel segments). A catheter is used to drain urine from the pouch through an abdominal stoma. This is an easy and painless process. Self-catheterization for pouch irrigation to prevent mucus plug formation is required.

Some examples are the Kock, Indiana, Mainz, Miami, Studer, and Mitrofanoff Pouches. See drawings below.

Continent reservoirs are complex procedures with a longer time spent on the OR table as well as a longer recovery. They require more intensive postoperative care and have a higher risk of reoperation when compared with an ileal conduit.

Metabolic disturbances are common after continent urinary diversion. They can, however, be minimized through careful patient selection, vigilant follow-up, and patient education to ensure adequate daily fluid intake and complete reservoir emptying. Patients should be aware of the potential complications, particularly at times of illness, when dehydration increases the risk. Physicians should be alert to the possibility of metabolic disturbance in this population.

For a comprehensive article about risk and management of metabolic disturbances see "Potential metabolic complications of continent urinary diversion", an article from the online journal, "Contemporary Urology".

The success of initial surgery and the need for follow up surgery varies depending on the skill of the surgical team and the quality of the medical center. However, potential candidates for bladder reconstruction should be aware that complications such as scarring, obstruction of the ureters, chronic urinary tract infections and problems with self-catheterization could possibly complicate recovery for both the continent reservoirs as well as the external conduit procedures.

More pouch info on WebCafe:

Caring For an Indiana Pouch
Caring For a Florida Pouch
Gastrocystoplasty (pouch made using stomach material)
See also: Neobladders
For first hand accounts of what it's like to be a 'pouch person', check out the Tales From The Trenches and Trench Talk

Gastrointestinal tract used to create continent urostomies

Ileal neobladder, pouch is made from small intestine (ileum) and outlet is urethra, no stoma

Indiana Pouch Pouch made from large intestine (ascending colon). Natural ileocecal valve used for outlet made from terminal ileum.

Kock Pouch Pouch, valves and outlet made from terminal ileum.

Mitrofanoff Procedure (and variation). Pouch is made from bladder, large or small intestine or combination. Outlet is made from appendix (fallopian tube or ureter segment).

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