In IPAA, the entire colon and rectum are removed and an artificial reservoir is created from the small bowel, which is then joined to the anal canal so the patient is able to pass bowel movements through the usual route, eliminating the need for a permanent appliance (ostomy).

Cleveland Clinic began offering this procedure in 1983 and it has been performed on more than 3,600 patients. While the procedure is complex and requires multiple steps that may or may not be accomplished with one surgery, the end result provides the majority of patients with positive outcomes that most feel outweigh the risks and possible complications.

While there are a few variations to the creation of an IPAA, the most common method in the past has been a traditional open approach, where a rather long, mid-line incision is made in the abdomen. As with any major surgery, complications are possible and there is the potential of “failure.” In the case of IPAA, this can mean removal or alteration of the pouch.

However, Cleveland Clinic has not only completed the greatest number of pouch surgeries of any hospital, it also has the lowest pouch failure rate reported by any institution. Since the early 1990s, Cleveland Clinic has been offering an alternative to the open IPAA for patients who meet certain criteria: laparoscopic IPAA. During laparoscopic surgery, several very small incisions are strategically placed on the abdomen. These incisions serve as ports for the specialized
Laparoscopic Surgery a Safe Alternative to Traditional Open Procedures

Instruments of laparoscopy as well as the laparoscope, a kind of camera that transmits images onto a video monitor. The surgeon uses these images as a guide.

The first stage of the IPAA procedure, the Subtotal Colectomy or Total Abdominal Colectomy (that is, the removal of the colon and, usually, the creation of a loop ileostomy), has been performed laparoscopically for many years. However, the second stage of the procedure, creation of the pouch itself, also can be completed laparoscopically. This has been done on 162 patients at Cleveland Clinic since 2007.

The advantages of laparoscopic surgery, even in complex procedures such as IPAA, are numerous. Patients with CUC or FAP are ideal candidates for such minimally invasive surgery because both diseases are usually benign (non-cancerous) at the time of the operation and patients are often relatively young and in otherwise good health.

While the initial operative time for laparoscopic surgery is significantly longer than for open surgery, blood loss is much lower, scarring is minimal and the possibility of complications is no greater than open surgery. Most laparoscopic patients resume normal bowel function more quickly than those who have had an open procedure.

All of these factors can shorten the hospital stay by several days. Also, the pouch itself may heal more quickly, allowing a faster return to normal activity and possibly decreasing the length of time that a patient must deal with a stoma.

A recent study conducted by Cleveland Clinic’s Drs. P. Ravi Kiran, Feza Remzi, Tracy Hull and Daniel Geisler found that among IPAA patients who had similar health before the surgery, both short-term and long-term results as well as overall quality of life (as defined by patients) for the first five years after surgery were comparable or higher for patients who were able to undergo laparoscopic IPAA instead of open IPAA.

This advancement in laparoscopic surgery is just one example of a technologically advanced procedure becoming even more accessible to patients requiring complicated surgery, and one which should benefit even more people in the future.

1 El-Gazzaz, Galal S; Kiran, Ravi P; Remzi, Feza H; Hull, Tracy L; Geisler, Daniel P. Translating the benefits of laparoscopy to patients undergoing restorative proctocolectomy: fact or fiction. British Journal of Surgery. 2009 (in press).
Eating Properly is Important After Ileo-Anal Pouch Surgery

BY ANDREA R. KOZAK, RD, LD, CNSC

Eating is not just about nourishing your body. For many people, it is about sharing social situations, helping themselves feel better and knowing they are doing what is best for themselves.

Making healthy food choices is important for everyone, and people who have had intestinal pouch surgery are no exception. Unfortunately, it is not always easy to figure out what “healthy” means, especially after a major intestinal surgery such as creation of an ileo-anal pouch. Efforts to control diarrhea and gas and balance fluids can get in the way of eating healthfully, and failure to eat the right foods can hinder the ability of your intestines to absorb the vitamins and minerals you need.

A New Anatomy

After surgery, a vital part of your body has a new anatomy. The absence of the colon means a large amount of water will be lost with each bowel movement. Amazingly, though, the remaining intestines will eventually adjust to this new configuration.

The pouch will go through a period of adaptation, but it may take up to a year. As months pass, pouch storage capacity increases, the number of daily bowel movements decreases and stool consistency thickens.

Changes in your food habits will assist the bowel during this adjustment period.

Trial and Error

About four weeks after your final reconstructive surgery, your body probably will be starting to feel more normal and the inflammation from surgery will be subsiding. This is the time to start gradually reincorporating a variety of fruits, vegetables and whole grains into your diet. These foods are high in vitamins, minerals and other nutrients that are good for your healing and intestinal adaptation.

Eating a variety of foods is ideal for good nutrition and general health. Taking a daily multivitamin with minerals can ensure you are consistently getting the right nutrients.

Initially, you may find that some foods have an undesirable effect on your stool. Reintroduce one or two new foods daily to make it easier to determine the cause of any problem. If you have difficulty tolerating a new food, avoid that food for a few weeks before you try it again. Intolerance often is not permanent because the bowel continues to adapt.

Remember, no two people are exactly the same. Learn which foods bother you and avoid them.

The following foods have been implicated in causing anal irritation during the first year, but that does not mean your personal tolerance will not allow for them:
- Raw fruits and vegetables, corn
- Beans, nuts, seeds
- Popcorn, coconut, dried fruit
- Spicy foods or acidic juices, tomatoes

During this time, keep a journal of everything you eat or drink in order to help identify the relationship between the ileal pouch and foods that could be causing adverse reactions. Track when the items were consumed, how the food was prepared, the amount consumed and any adverse reactions. This information will help you to make knowledgeable decisions about changes that will improve the function of your pouch.

Importance of Fiber

As time goes on, fiber will become an extraordinarily important part of your new eating habits, especially soluble fiber. Soluble fiber helps thicken output, increase the size of the pouch and regulate the number of stools you have each day.

For the first few weeks after surgery, your doctor or dietitian probably had you avoid high fiber foods such as bran, nuts, whole grains, fruits and vegetables. After such an extensive time without significant amounts of fiber, it is important to gradually increase the fiber in your routine. Increasing fiber intake by five grams every three days until you reach 25 to 35 grams a day is a good way to avoid symptoms such as cramping, abdominal discomfort and bloating.

Since fiber requires water to work effectively in your body, make sure you increase the amount of fluids you drink during this process. As you aim to include more fiber, be sure to include more soluble fiber, such as oats, beans, potatoes, barley, bran, dried beans, lentils and some fruits and vegetables.
High Pouch Output/Diarrhea

Certain foods can cause you to have a high number of bowel movements, also called high pouch output or diarrhea. Experiencing intermittent problems with diarrhea during the first year is not uncommon. When this occurs, the body loses a great deal of sodium, potassium and water. When left untreated, it can cause serious health concerns. Of course, persistent diarrhea may have other causes, such as illness or infection, which necessitates a call to your doctor.

Fortunately, though, there are some foods and techniques to help reduce high pouch output. One technique is eating five to six small (snack-sized) meals per day to maximize absorption of nutrients by the intestines. People also report success when routinely incorporating foods with soluble fiber to improve water absorption in the bowel. Good, soluble fiber foods to try include:

- Tapioca Oatmeal
- Soft wheat bread Cooked carrots
- Skinless potatoes Creamy peanut butter
- Bananas and applesauce Yogurt and cheese

Other foods may exacerbate high pouch output and, in this situation, should be avoided. They include:

- Refined sugar foods and beverages like table sugar, fruit juices, syrups, sodas, honey, cookies, cakes, pastries and pies tend to make output more liquid since they are digested and absorbed into the bloodstream quickly. Instead, choose more complex carbohydrates like whole grains, cereals, pasta, lentils, fruits and vegetables.
- Dairy products, because they contain lactose (or milk sugar), may cause diarrhea or bloating and cramping. Often, symptoms tend to improve just by cutting back on the amount and frequency of these items. Soy milk or lactase-treated milk can be alternatives.
- Low calorie or sugar-free items made with sugar alcohols (sorbitol, mannitol, zylitol, maltitol and isomalt) can create liquid output. Instead, use products that contain sugar substitutes like aspartame, saccharin or sucralose.

Hydration

Another very serious concern with diarrhea is hydration. Limiting your fluid intake will not decrease your pouch output. It is very important to drink adequate amounts of fluids and consume enough electrolytes (sodium and potassium) to keep up with the losses that are occurring. Many people benefit from at least eight cups of fluid daily, but when high pouch output is taking place, you need to replace at least as much as you are losing through the diarrhea. This also is a good time to be rather liberal with your salt shaker.

Good sources of fluid and electrolytes are tomato or vegetable juices, soups, broths and diluted or low-calorie sports drinks.
I am a survivor of ulcerative colitis (UC) and I would like to share my story.

In November 1997, while I was pregnant with my daughter, I was diagnosed with UC. The symptoms were mild at that time and no one explained to me how debilitating the disease could become. I was naïve enough not to investigate it on my own.

After giving birth to a healthy girl in January 1998, I discovered just what UC can do through six years of battling it. I was initially treated with all of the sulphur medications. They did me no good. My doctors finally resorted to prednisone. The side effects of this drug were something to endure. My clothing size fluctuated from a two to a 10 at any given time. I had a lovely moon face that made me look as though I had swallowed a blow fish. I was in and out of the hospital with flare-ups. I was pumped with IV prednisone (80 mg daily). I also was given immunosuppressants and had blood work done twice-monthly and sometimes weekly. I was passed from doctor to doctor and got nowhere.

Every time the doctors attempted to wean me from the steroids, I would have another flare-up, usually resulting in hospitalization. I even tried Remicade twice, only to have a severe reaction to it. Methotrexate was mentioned as an alternative, but we decided against it.

I am a high school teacher. I would drag myself to work, survive until the last bell rang, then go home to bed, only to start over the next day. I was just existing, not really living. It breaks my heart to think how my illness affected my ability to be a good mother. I didn't have the energy to do ANYTHING except the bare necessities of surviving. In November 2002 (Thanksgiving break), I broke my finger while riding horses in my yard (near the restroom). The doctors had done a bone density test in March 2003, where we discovered the prednisone had caused such calcium depletion that I had severe osteoporosis. That's when I was told that the “remedy” was causing yet-another ailment. My body could no longer tolerate steroid treatment, yet it was the only thing that had proven to be effective. My doctor told me it was time to consider surgery as a real alternative. Until this point, surgery had only seemed like a vague possibility. Now, it was reality. (In September of 2004, the osteoporosis resulted in a broken hip and fractured vertebrae in my back.)

My physician referred me to a gastroenterology group in Little Rock, AR, who reviewed my records via teleconference and told my physician that if I were their patient, they would
send me straight to Cleveland Clinic because I seemed the perfect candidate for the J-pouch procedure. I had never heard of this procedure.

On Good Friday 2003, I drove to Cleveland Clinic and met with a variety of physicians to determine whether I was a good candidate. Upon discovering a thyroid issue, Cleveland Clinic sent me back to Arkansas to have the problem diagnosed and treated, thinking it might have an effect on my UC. However, the thyroid issue had nothing to do with the UC.

I wanted to schedule the surgery as soon as possible thinking I could do my three months with the ostomy during the summer and not have to teach with it. However, Cleveland Clinic scheduled my surgery for July 1 because “you don’t want to have surgery without Victor Fazio, MD, on your team and he’s not available until then.” So, I underwent the first stage of my surgery, was hospitalized for six days, then stayed in a Cleveland hotel for seven more days.

Before surgery, I was counseled on what to expect and assigned a case worker. Post-surgery, I was assigned an ostomy nurse. She was WONDERFUL. She showed my husband and me everything about the bag and how to care for the ostomy. She answered all of our questions and set up appointments so I could see her while I was still in the Cleveland area.

We went back to Arkansas, where I recovered and learn to live with an ostomy. I returned to work in the fall. I flew to Cleveland in October for my “take-down” surgery. I had no problems, and was back at work within two weeks.

I have had a few instances of pouchitis, but it was nothing compared to UC. I took oral antibiotics and kept right on working. I have not had pouchitis for several years. I eat what I want (within reason). I even have an occasional salad. I no longer feel tied to a restroom. I no longer have urgency or accidents. I am no longer anemic. Life is SO good.

I look at photographs from before my surgery and realize just how sick I was. I was just surviving and was living tied to a restroom. Taking medications and feeling bad were just part of my life. I am glad to say that is all in the past. I live a normal life. Yes, I use the restroom more frequently than others because my J-pouch is not as big as a colon, but I choose when I go. I have control. The only medications I take are vitamins and my thyroid tablet.

Life is good. God is good. Cleveland Clinic is good. If I can ever be of any assistance to any other patients, please contact me through Cleveland Clinic’s Department of Colorectal Surgery at CORRAOE@ccf.org.

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drinks. Popsicles, yogurts, puddings, ice creams, gelatins, sports drinks or other beverages also assist with hydration. Opt for sugar-free or low calorie versions to avoid excess amounts of refined sugar. Beverages made specifically for diarrhea management, such as Pedialyte, are reasonable choices as well.

Consuming a variety of liquids is better for hydration than just drinking water, which could wash away important electrolytes. However, some liquids are best avoided, like alcohol and excessive amounts of caffeinated beverages (like energy drinks, sodas, coffee and tea). In large quantities, caffeine acts as a diuretic, causing loss of fluids through urine and stool. Caffeine may be best tolerated as only one serving a day.

Recently, probiotics have become increasingly popular as a treatment for a variety of gastrointestinal problems and for maintaining digestive health. Talk to your dietitian or doctor about this option to make sure it is right for you.

By making purposeful decisions about what you eat, you will keep yourself on track nutritionally, control intestinal symptoms, speed your recovery and support your long-term wellbeing. If you feel that you could benefit from more personalized information, consulting with a dietitian who specializes in gastrointestinal disorders could be advantageous.