Umbilical Hernia

What is a hernia? A hernia is a protrusion of an internal organ - usually intestine or fatty tissue inside the abdomen - through an opening in the muscular wall of the abdomen. Common hernias include inguinal and femoral (groin), umbilical (navel), and incisional (occurring through previous surgical incisions). This discussion will focus on umbilical hernias, although many principles pertain to all of the above.

The umbilical cord that attaches a developing baby to its mother passes through a "hole" in the muscles and connective tissue of the abdominal wall. After birth, once the umbilical cord is tied and cut, the hole through the abdominal wall closes spontaneously, preventing any organs inside the abdomen from protruding through. Failure of this closure process results in an umbilical hernia. As would be expected, it occurs most commonly in infancy and childhood, if the umbilical closure process fails. However, umbilical hernias occurring in infants and young children are unique among human hernias in that they frequently will "repair" themselves - that is, the hole will close spontaneously and the hernia will disappear. But this does not occur in adult umbilical hernias - which do not close on their own. The development of an umbilical hernia is usually not related to a particular activity or event, as it represents a congenital occurrence. It is nothing the patient has done wrong, nor is there anything the patient could have done to prevent its occurrence. It may simply be first noticed after an incident of heavy straining.

Umbilical hernias most often present as a bulge, or protrusion at the umbilicus (navel). While some navels may protrude normally, the majority do not. A previously normally inverted navel that is noticed to be protruding outwards suggests the development of an umbilical hernia. It may be reducible - that is, it can be easily pushed back in. Some hernias are incarcerated, or trapped-and cannot be pushed back in. Incarceration is not unusual in umbilical hernias, and does not necessarily herald an emergency. However, the development of symptoms of intestinal entrapment, such as: abdominal pain, distention, nausea, vomiting, or inability to pass gas or stool, despite the urge to do so indicates an emergency situation, and medical consultation should be sought immediately. Strangulation of an umbilical hernia occurs much less frequently than simple incarceration.

Strangulation is suggested by the development of extreme pain and/or tenderness of the hernia, or the appearance of a pinkish color to the skin around the hernia. Either incarceration or strangulation may occur in the absence of symptoms of intestinal entrapment, as frequently the contents of the umbilical hernia are not intestine, but rather fatty tissue from inside the abdomen, which can be either incarcerated or strangulated, but does not interfere with intestinal function. In such cases, the situation is not as much of an emergency as if there were intestine involved.

What can happen to umbilical hernias if they are left alone? Usually, with time, they will gradually enlarge, over months or, more commonly, years. The pressure of the hernia sac, protruding through the opening will gradually enlarge the opening, allowing protrusion of more abdominal contents, thus further enlarging the opening, in a gradual vicious cycle. The rate at which this process proceeds varies a great deal from patient to patient. Some hernias will enlarge noticeably over a few months. Others appear stable in size over many years, but ultimately enlarge. On occasion, long-standing hernias may contain a considerable amount of intestine...
A second problem that can develop with hernias, other than enlargement, is incarceration or strangulation, as described above. It was popular in years past to advise patients that failure to repair a hernia immediately would result in imminent incarceration or strangulation. In fact, in any given patient with a hernia, the chances of incarceration or strangulation are quite small - about 1-10% over the lifetime of the patient. So, generally, a hernia is not an emergency, or even an urgent problem, especially as most people with hernias are asymptomatic. Nonetheless, if the patient is living where there is not immediate access to expert surgical care, it could be a big problem if incarceration or strangulation did occur. This is something of greatest interest for those who travel abroad frequently, especially to underdeveloped countries.

What can be done about your umbilical hernia? There are two options. First, leave it alone, assuming that it doesn't bother you. If it does cause discomfort, then you may wish to have it repaired. If left unrepaired, an umbilical hernia will likely enlarge gradually over the years, and will therefore likely need to be repaired at some point. Secondly, while incarceration or strangulation is unlikely, it is still a possibility, which cause concern among some patients. There is no device such as a truss, sometimes used for the non-operative temporary management of groin hernias that is effective for umbilical hernias. Elastic abdominal binders used for other purposes will not provide the specific, localized pressure necessary to reduce an umbilical hernia.

The second option is surgical repair, which is more commonly chosen, and which has become the standard recommendation. Umbilical hernia surgery today is usually done as an outpatient, with no overnight hospital stay. Anesthesia is local or regional with sedation. General anesthesia is less commonly used, but is still a useful option in some patients. The choice between local and regional (epidural or spinal - both very effective, comfortable and safe) is made based upon a number of factors, including patient preference, patient's ability to hold comfortably still for the initial examination, patient's body build, and whether it is a first time hernia or a recurrence following a previous repair (more on that later).

In elective umbilical hernia repair, you will arrive at the hospital the day of surgery and see your surgeon before being given any anesthesia. You will see the group of people who assist, including nurses, anesthesiologists, and surgical assistants. I will be doing the operation with assistance of the team. Once you are taken into the operating room and given sedation to relax you, the surgical site will be made numb, either by the anesthesiologist or your surgeon, depending on which method we choose, along with the recommendation of the anesthesiologist. A curved incision will be made, usually underneath, but occasionally above, the umbilicus, designed to leave the best possible cosmetic results. The hernia sac and its contents will be returned to the abdominal cavity and the defect in the abdominal wall will be repaired with sutures - usually permanent, but occasionally absorbable. It is uncommon for prosthetic mesh materials to be used in the repair of simple, small umbilical hernias, however they may be used if necessary.

Once the repair is completed, the skin is closed with a woven suture hidden underneath, where it will dissolve. Thus there are no external stitches, allowing for maximum comfort and usually excellent cosmetic results. The operation takes less than an hour in most cases.

Recurrent umbilical hernias are rare. They are repaired in a similar manner with three differences: general anesthesia is usually chosen, mesh is more likely to be used in the repair, and postoperative discomfort and swelling may be more pronounced.

You will return home a few hours after the surgery. Long-acting local anesthetic will keep you comfortable for the first 4 to 6 hours. Once it wears off, you may have some discomfort. The amount of discomfort after umbilical hernia repair varies among patients, although it is almost
always less than that experienced after inguinal, or groin hernia surgery. Most patients have very modest pain. Many take no pain medicine at all, or just over-the-counter medicine like Tylenol, Advil, Motrin, generic ibuprofen, etc. Those who use the prescription provided usually only use 1 to 3 tablets over the first day or two. Whatever level of discomfort is experienced, it goes away rapidly.

The bandage should be kept dry and remain in place for 24 hours and then removed. After that, you may shower and wash the surgical site. Complete immersion such as in a bath or swimming should not be done until after your first post-op office visit, 10-14 days after the operation. I take turns with my associates in providing after-hours coverage for problems and emergencies that can't be dealt with during regular business hours. If you need such assistance, call our office, and if I am not available, another one of our surgeons will assist you.

Most patients are back to work in 3 to 5 days. You may walk as much as you like immediately after surgery, including stairs, although you should climb slowly and infrequently the first few days. You may drive within 2 or 3 days, once you feel loose and comfortable to safely control a car and you are no longer taking narcotic pain medication. You may lift up to 20 lbs, if you can do so comfortably without straining. A post-op office visit should be made for about 10 to 14 days after surgery. At that time you will be allowed to begin gentle exercise, such as jogging, swimming, stationary bicycle, treadmill, etc. After that visit you may travel, including overseas.

By one month after the operation, you may gradually progress to full unlimited activities, including sports and lifting, as if the operation never happened. You may notice some tightness or mild pain if you overdue it, so just listen to your body and progress as you feel comfortable - use common sense!

There is a possibility of the development of another hernia at the umbilicus, called a "recurrent umbilical hernia", in about 1% to 3% of cases. Many factors affect the rate of recurrent hernias, including age, obesity, and chronic straining, such as with constipation or chronic coughing. The technical type of hernia repair may play a role as well, but probably not as much as the factors mentioned above.

Finally, umbilical hernia surgery is not minor surgery - but it is on the low end of major surgery. As with any operation, it does have potential risks. These risks include, but are not limited to: death, heart attack, stroke, blood clots, pneumonia, or other catastrophic complications of the vital organs - all quite rare, but nonetheless possible with any surgery. Other risks include bleeding, infection, scarring, or wound healing problems. A common problem is accumulation of fluid under the skin of the navel, called a seroma. This might appear as a postoperative swelling. It usually resolves on its own; however it may rarely be necessary to remove the fluid with a small needle (aspiration).

Once you are comfortable we have discussed the above issues to your satisfaction, please sign and date below.

Thank you. 9-07