

SURGERY? HAVE YOU A CHOICE?

The Nine Most Difficult and Dangerous Surgeries

Some surgeries are considered so dangerous that they may lead to a worse case or to death.

1. Septal Myotomy: This surgical operation is performed to decrease the congealing of the heart muscles, which is a symptom of patients diagnosed with advanced stages of a multifaceted heart disease called hypertrophic cardiomyopathy. This is a difficult operation, as it needs the patient to be put on cardiopulmonary bypass, so that the surgeon can perform on a motionless heart. Indeed, this surgery can take from three to six hours, and the recovery period needs accommodation in the Intensive Care Unit.

2. Bariatric surgeries/Gastric bypass: Surgeons must employ particular instruments, as internal organs are usually hard to divide. These patients also suffer an increased risk for difficulties with anesthesia, as it is often difficult to place the tube inside their airways. Breathing must be strongly checked before, throughout and after the surgery, as patients are exposed to a risk of pneumonia.

3. Thoracic Aortic Dissection Repair: Aortic dissection is a tear in the deepest layer of the heart. It can cause many hazardous complications (such as heart failure or even a crack of the aorta). Repair is fundamental to the survival of the patient. Urgent treatment is needed, and this often leads to the surgeon removing a portion of the aorta, then reconstructing it with an artificial fix.

4. Bladder Cystectomy: This operation is performed to eliminate a part of or the entire (cancerous) urinary bladder. This surgery may cause inflammation of the covering coating the abdomen, and there is a danger for urine leakage from the bladder opening.

5. Spinal Osteomyelitis Surgery: Illnesses of the spine are destructive, and any surgery performed on this region can lead to paralysis.

6. Craniectomy: Craniectomy requires that a portion of skull be eliminated to reach the brain. This portion is not replaced, and brain damage following the surgery is common. There are other risks, such as loss of vision, mobility and memory.

7. Coronary Revascularization: (Also known as coronary artery bypass grafting.) The operation redirects blood around one or more blocked coronary arteries. Connections are done via artery or vein grafts from other parts of the patient's body. Patients whose ventricular utility is deteriorating rapidly are advised not to undertake this surgery.

8. Surgical Ventricular Restoration: This surgery is done to cure congestive heart failure, by restoring the heart to its regular size and shape. It is very risky, as the patient is placed on A heart-lung machine.

9. Esophagectomy: This involves rebuilding the region between the stomach and the esophagus. Often there is seepage of fluid from the stomach or esophagus after surgery.

THE BEST DAY? THE BEST TIME?

Of course, surgeries are sometimes done at unexpected times to address emergencies. But, whenever possible, you should schedule surgery so that you have adequate time to prepare – and so that you can have the surgery at an optimal time. Here's why this is so important.

Research conducted through the University of Michigan Health System and recently published in Neurosurgery evaluated nearly 16,000 patients who underwent neurosurgical procedures over seven years. In these procedures, 785 complications were reported by the neurosurgeons.

The researchers evaluated the procedures to see if they could find any patterns in when the complications arose, and they found something startling: procedures that began between 9:00 pm and 7:00 am were 50%+ more likely to involve complications than procedures that began earlier in the day. In fact, the later the surgery began, the more likely it was to involve a complication. And emergency and elective surgeries were equally likely to

involve complications – the only difference was the complications tended to be more severe in emergency surgeries.

It's not surprising that such complications are occurring. Surgeons are people too, and working outside normal business hours is taxing. So if you need surgery, it's definitely worth scheduling it for early in the day, when the doctor is fresh and rested. Just make sure you confirm you're not actually scheduling the last time slot of a night shift.

What should you do if you have an emergency? The researchers plan to investigate whether it's worthwhile to simply stabilize patients if emergencies occur at non-ideal times and put off the surgery until daylight hours. This option may be worth discussing with your doctor if you do have an emergency.

And the Best Day to Have Surgery?

Monday morning (assuming your surgeon has enjoyed a restful weekend)

PLASTIC SURGERY:

The Ten Most Common Complications

Last year, Americans spent more than \$8 billion on cosmetic surgery. From breast augmentation to rhinoplasty, procedures to change our appearance are becoming increasingly common. But these surgeries don't come without risks.

For many people, going under the knife is a very scary thought. If you're thinking about plastic surgery, it is important you are aware of both the benefits and the risks.

1. Hematoma

A Hematoma is a pocket of blood that resembles a large, painful bruise. It occurs in up to 6 percent of breast augmentation procedures, and is the most common complication after a facelift. Hematoma is a risk in nearly all surgeries, and treatment sometimes includes additional operations to drain the blood.

2. Nerve Damage

The potential for nerve damage is present in many different types of surgical procedures. Numbness and tingling are common after plastic surgery and can be signs of nerve damage. Most women experience a change in sensitivity following breast augmentation surgery, and approximately fifteen percent permanently lose nipple sensation.

3. Infection

Though postoperative care includes steps to reduce the risk of infection, it remains one of the more common complications of plastic surgery. In breast surgeries, cellulitis (a skin infection) occurs in 2-4 percent of patients. In some cases, infections can be internal and severe, requiring IV antibiotics.

4. Deep Vein Thrombosis and Pulmonary Embolism

Deep vein thrombosis (DVT) occurs when blood clots form in deep veins, usually in the leg. When these clots break off and travel to the lungs, it's known as pulmonary embolism (PE). Though relatively uncommon, these complications can be fatal.

5. Scarring

Surgery typically results in scarring. Since cosmetic surgery seeks to improve the way you look, scars can be particularly troubling. Hypertrophic scarring, for instance, is an abnormally red and thick raised scar that occurs after up to five percent of breast augmentation procedures.

6. General Appearance Dissatisfaction

Although most people are satisfied with their postoperative outcomes, disappointment with the results is a real possibility. Women who undergo breast surgery may experience contouring or asymmetry problems, while those undergoing facial surgeries may simply not like the result.

7. Organ Damage

Liposuction can be traumatic for the internal organs. Visceral perforations or punctures can occur when the surgical probe comes into contact with internal organs. Repairing these injuries can require additional surgery. Perforations may also be fatal.

8. Anesthesia Complications

General anesthesia, in which drugs are used to render you unconscious, can lead to complications. These include lung infections, stroke, heart attacks, and even death. More common anesthesia risks include waking confused and disoriented, and shivering. A less common complication is anesthesia awareness, or waking during surgery.

9. Seroma

Seroma is a condition that occurs when serum from the blood pools beneath the surface of the skin, resulting in swelling and pain. It resembles a large blister. This can occur after any surgery, and is the most common complication following a tummy tuck. Because seromas can become infected, they are often drained with a needle, effectively removing them, although there is a chance of recurrence.

10. Blood Loss

As with any surgery, some blood loss is expected. However, uncontrolled blood loss can lead to a drop in blood pressure with deadly outcomes. Blood loss can happen while on the operating table, but also internally, after surgery.

As with most surgeries, plastic surgery complications are more common in certain people. People who are obese, and the elderly, are more prone to complications.

You can reduce your risk of suffering these unwanted effects by fully vetting your doctor's credentials and investigating the facility where your surgery will occur. Educating yourself about procedures and possible risks, and discussing your concerns with your doctor, will also help you manage your expectations and reduce the risk of complications.

COLONOSCOPY

Are you looking forward to getting your next colonoscopy? Isn't it amazing how quickly those five to ten years between procedures can pass? If you're like most, you're trying to stretch the time between screenings a bit longer. And you'll probably be even more inclined to do so once we share the latest news with you. It turns out, that having a colonoscopy can increase your risk of having surgery shortly after the procedure is complete – and the surgery won't be on your colon.

A doctor and researcher at the University of North Dakota, Dr. Marc Basson, has picked an unusual part of the body to focus his studies on: the appendix. And he noticed that several of his patients had an interesting complaint: after they'd undergone a colonoscopy (from a number of different doctors), they suffered appendicitis, often within a few days of the screening. Dr. Basson wondered if this was just a strange coincidence or if there was a true correlation. So he gathered a research team to find out.

For a study ultimately published in *JAMA Surgery*, the researchers analysed data gathered from nearly 400,000 veterans who had undergone colonoscopies between January 2009 and June 2014. Because the veterans' healthcare data were tracked through the US government, the researchers were able to see how many of them experienced appendicitis shortly after their colonoscopies.

Sure enough, rates of appendicitis and appendectomies went up fourfold in the first week following colonoscopies compared to the 51 weeks after that. And since different providers code procedures in various ways, the researchers believe the true increase could be as much as 12-fold. The researchers don't yet know why this connection exists, but it's clear that it does! It's possible that the bowel preparation process alters the bacteria in the colon in a way that causes the appendix to become inflamed or that the air pressure required for the procedure affects the appendix.

BOTOX:

Although Botox has been used for years, it has only enjoyed USFDA cosmetic approval since 2002. Botox is a trade name for botulinum toxin A. You may have heard of botulism, a form of food poisoning that occurs when a person eats a food containing a potent neurotoxin produced by the bacterium known as *Clostridium botulinum*.

Botulinum toxin A, or Botox, is just one of the neurotoxins that are produced by *C. botulinum*. Botulism causes many symptoms, the worst being paralysis, which can sometimes prove fatal. In essence, botulinum toxins block the nerve signals that instruct your muscles to contract. Why would anyone want to purposely inject such a dangerous substance into the body? The answer is simple: if a muscle is paralyzed, it cannot move; if it cannot move, it cannot wrinkle. Thus, Botox works by freezing the muscles that cause wrinkles, such as the deep groove that often appears on the forehead between the eyes.

Botox is used to treat severe glabellar (frown) lines. Botox causes frown lines to disappear temporarily, as long as the toxin is active. Botox has become so popular that many people have attended "Botox" parties, where Botox injections are offered to all who attend. In recent years, more and more young people have been using Botox in an attempt to prevent wrinkles from forming, although there is no research to support the theory that Botox can prevent wrinkles. In short, Botox has been hailed as a sort of "fountain of youth" for people wanting to rid themselves of their wrinkles.

Is Botox safe?

Several clinical studies have been done to assess the safety of Botox when used for cosmetic purposes. Common side effects reported include:

- Droopy eyelids
- Muscle weakness
- Heartburn or indigestion

- Facial pain
- Tooth problems
- Hypertension
- Nausea
- Flu/respiratory symptoms
- Headache
- Redness/pain/swelling at the injection site
- Bleeding
- Numbness

A Canadian study has raised concerns that Botox may affect muscles not treated by Botox. Researchers from the University of Calgary injected a group of rabbits with botulinum A toxin for a period of six months and found that the limbs that were injected lost almost half of their muscle mass. Even more concerning, the researchers found that the rabbits lost muscle mass in muscles located far away from the toxin injection site. The US FDA already requires the manufacturers of Botox to label Botox with a warning that the toxin can travel to unintended parts of the body. Doctors administering Botox are also required to provide patients with a letter outlining the risks.

In 2008, news appeared about Botox and its ability to enter the brain. It seems that, prior to this time, researchers rebuffed the idea that Botox could travel to the brain. This changed in 2008, when researchers discovered that botulinum toxin can travel along the body's neurons from the site of injection to the brain. The study that changed their minds was performed on mice, but has raised concerns regarding the safety of Botox in humans.

Other reasons to avoid Botox

1. Cost. Botox is expensive. Because it is used as a cosmetic procedure, it is not covered under most health plans, meaning the entire cost must be borne by the consumer. The cost of a Botox injection varies, but is generally several hundred dollars. (It may be cheaper if provided by someone who is not qualified, but getting an injection from someone who is not a health professional is even more risky). Botox cosmetic is usually charged by the

area. The three most common areas are crow's feet, forehead, and the lines in-between the brows (glabella). Physicians typically use 60 units for those 3 areas and charge from \$10 to \$15 per unit.

2. It wears off. Botox is not a permanent solution, and generally lasts less than six months. If you like what Botox does for your appearance, you will have to continue having Botox injections every three to six months. On the flip side of this coin, if you experience a bad result, it should wear off within six months.

3. It is less effective on the aged. Elderly people may get fewer results than younger people, a fact that they may not be aware of. Elderly people may be at higher risk for unwanted side effects than younger adults

4. Too much Botox can lead to an inability to show expression. We have all seen pictures of Botox gone wrong - people who have received too much Botox and appear plastic, seemingly unable to change expression easily. This can lead to a frozen-appearing facial expression

Botox is extremely popular, despite studies that have raised concerns about its long-term safety. Botox is expensive, carries the risk of side effects, eventually wears off, is sometimes less than effective on the elderly and may lead to a wooden expression. Given these facts, we advise against jumping on the Botox bandwagon.