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Gallbladder Liver Pancreas

Brisbane Liver and Gallbladder Surgery
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PILONIDAL SINUS

THIS INFORMATION REFLECTS THE PERSONAL PRACTICE OF A/PROF KELLEE SLATER ONLY AND DOES NOT SUBSTITUTE FOR DISCUSSION WITH YOUR SURGEON.

YOUR ADMISSION DETAILS:

Your admission date is: _____

On your arrival to hospital, present to Admissions at the designated time. From the main entrance of the hospital, there is a pharmacy on the left. At the end of the pharmacy, there is a lift. Take this to Level 1. This is Admissions.

You will need to stop eating food from: _____

Drink the 2 DEX between: _____

You can drink CLEAR fluids until: _____ **then it is NIL BY MOUTH.**

Your operation date is: _____

The Rooms will call you a day prior to when you are due to enter the hospital to confirm your admission time and when to start fasting.

Register your admission to confirm your personal details and health history.

This must be done at least 48 hours prior to your admission. It can be done in two ways:

You can complete the admission form online at:

http://www.greenslopesprivate.com.au then click on the ONLINE ADMISSION button

OR

Call Greenslopes Private Hospital Admissions on phone 1800 777 101.

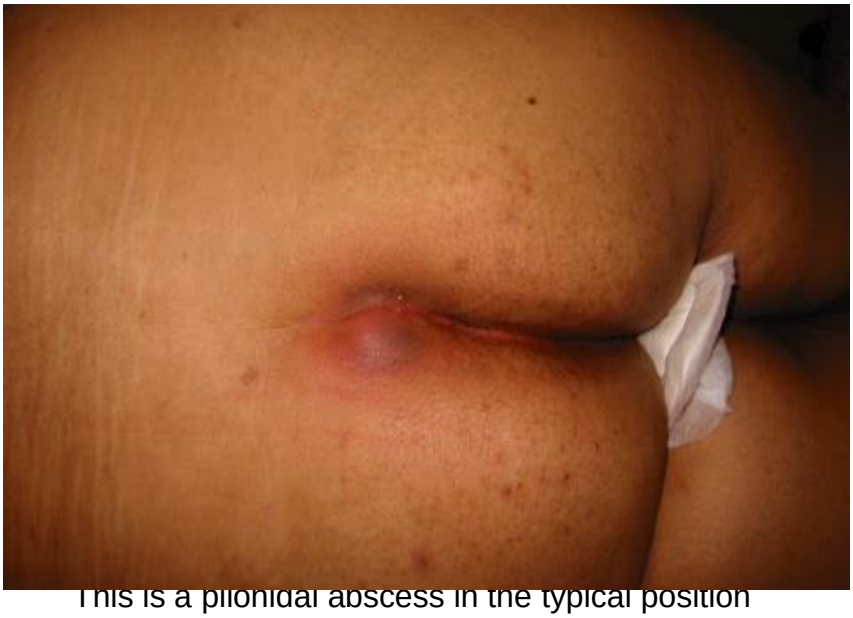
Monday to Friday 8am – 7:30pm or Saturday 8:15am – 12:45pm.

WHAT IS A PILONIDAL SINUS?

Literally meaning “nest of hairs”, a pilonidal sinus is a cavity under the skin that contains hairs. It most commonly occurs at the top of the natal cleft or more crudely – the butt crack. They can also occur in the belly button, between the fingers and on the soles of the feet. There are many theories as to how they form. The most logical theory is that the hairs fall off the back and the head, landing in the natal cleft. Some people are born with natural ‘pits’ in the skin of the buttocks. The friction and suction created here causes the hairs to fall into these pits. Over time, the ‘pit’ gets larger and continues to suck hairs in. These sinuses may be present for years and the patient does not know it. Very often, however, the sinus develops a bacterial infection. This results in a painful abscess forming at the top of the cleft. It will cause a fever and an eventual discharge of pus from the sinus.

Pilonidal sinuses typically occur in people with coarse hair on their head and back. This is why they are more common in men. Women also get pilonidal disease, typically when they have long hair. Sufferers often have a Middle-Eastern or Mediterranean background. They also occur in people who work with hair e.g. hairdressers, horse workers. People that sit all day are also at risk e.g. professional drivers – as there is a continual suction effect caused by sitting against a seat.

Interestingly, this is a disease of people between 15 and 40. The reasons for this are not known.



This is a pilonidal abscess in the typical position

WHAT ARE THE SYMPTOMS OF A PILONIDAL SINUS?

These sinuses may cause no symptoms at all. They are sometimes found during a routine medical check. There may be a lump at the top of the natal cleft. Sinuses are more frequently discovered when they become infected. This condition is very painful and can occur with no warning. The pain will make people present to the Emergency Department.

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WHY SHOULD A PILONIDAL SINUS BE TREATED?

The decision to remove a sinus that has caused no problems is a difficult one and should be decided on a case by case basis. Not all sinuses will become infected, but it is unpredictable. The recovery from surgery can be very long, so repairing a sinus that is not causing trouble may not be attractive.

Many want a pilonidal sinus repaired before they become infected. Infection can occur at very inconvenient times - like during a holiday and will require emergency surgery.

HOW IS A PILONIDAL SINUS REPAIRED?

The pilonidal sinus is still one of the most challenging problems in modern general surgery. The treatment is different for an accidentally found, non-infected pilonidal sinus and an inflamed one.

Inflamed sinus

An inflamed sinus requires urgent drainage performed under general anaesthesia (fully asleep). A cut is made in the skin and the pus is drained. The wound is then covered with a small dressing called a PICO (see below). The sinus is then allowed to heal from the bottom up. There will be a raw wound at the top of the natal cleft for some weeks. The PICO will seal the skin quickly.

Usually the pain will instantly be better once the abscess is drained. You will usually be able to go home the next day. If there is a lot of redness over the skin antibiotics will be continued via IV and then by mouth. You will go home with the PICO dressing on and I will change it every 3 – 4 days in the rooms (see PICO instructions).

Non-inflamed sinus

There are several techniques to repair a non-inflamed pilonidal sinus. It is important to remember that all these techniques carry an approximately 40% chance of recurrence.

1. Using a camera to remove the hairs

This is a relatively new technique. While you are asleep, a tiny camera is introduced into the sinus by enlarging one of the sinus openings. This gives a great view of all the hairs in the sinus and they are removed one by one. The whole cavity is then cauterised with heat to get rid of scar tissue. A small vacuum dressing is then placed - the PICO vac. This can generally be done as day surgery, has very little associated pain and only requires a week off work.

This technique is very new and may have to be repeated more than once. The advantages though are that it avoids multiple dressings and open wounds.

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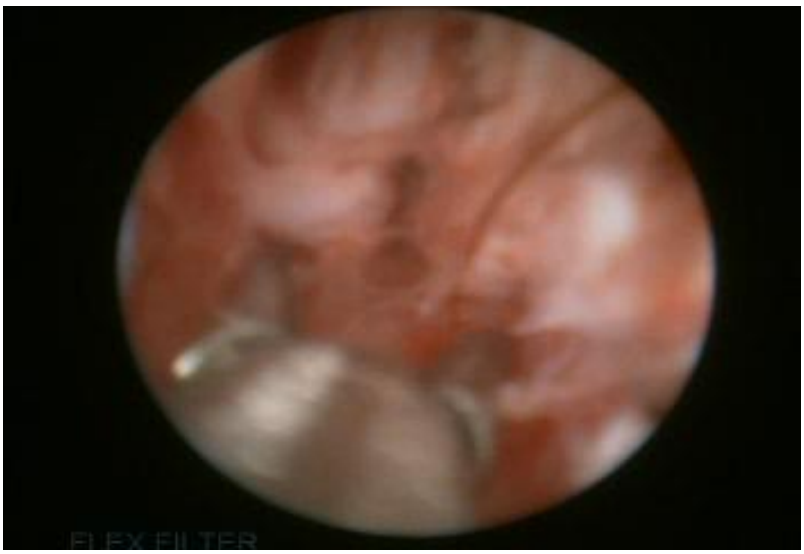

View through the camera into the sinus. There is a hair present and it is being removed by a grabber.

2. Removing the whole sinus

A non-inflamed sinus can be treated by cutting out the entire sinus and closing the wound with stitches. The aim with this closure is to flatten out the natal cleft and remove the suction effect that caused the sinus. The stitches will be left in two weeks and it can be very uncomfortable. It is common for these wounds to become infected and the stitches have to be removed early. If infection occurs, the wound will be opened, sometimes with another operation and allowed to heal slowly over time. A PICO vac will also be used in these cases.

WHAT ARE THE COMPLICATIONS OF PILONIDAL SINUS SURGERY?

Generally, you will be fully asleep for pilonidal surgery (general anaesthetic). Like any surgery, there are small risks of severe allergy and even death during an anaesthetic. This is very rare.

The complications specifically for pilonidal surgery are:

- Recurrence of the sinus: A considerable number of these sinuses come back (up to 40%) because, aside from removing all the hair on the head and back regularly, it is impossible to remove the cause. It is very common that after emergency surgery you may need a second procedure to try and fix the primary problem. The skin over a healed pilonidal sinus is very fragile and it is very easy for the hairs to get under the skin again.
- Delayed healing: After removal, these sinuses often heal for a while and then stop. It is common to need further operations to help the healing process and clean out the cavity.
- Break down of the wound: After a planned repair of a pilonidal sinus, the wound is closed with stitches. It is very common that these wounds get infected. About 50% of patients will get an infection and the wound will have to be opened. The wound will then be packed and heal from the bottom up.

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- Bleeding: Bleeding is very common just after and at any time during the healing process. The healing tissue is very raw and bleeds frequently. Occasionally patients have to return to theatre for this bleeding.
- Damage to the eyes, face, nerves of the arms and legs due to your position on the operating table. This is very rare and a great deal of care is taken in your positioning.

WHAT TO EXPECT IMMEDIATELY AFTER SURGERY

Pain Relief

Every effort will be made to minimise the discomfort. Your nurses will be monitoring your level of pain control frequently.

It is typical for pilonidal sinus surgery to be very uncomfortable for the first few days.

Local anaesthetic will be used in the wound and lasts for about 12 hours.

You will feel more comfortable lying on your side.

There are two major types of pain relievers after pilonidal surgery.

1. Panadol, Panamax, Paracetamol

   You will be amazed at the power of regular paracetamol. It will cut down the need for the very strong pain pills.

   They do not cause constipation.

   Do not take more than 8 tablets a day or serious liver damage may occur.

2. NSAIDs (Indocid, Brufen, Mobic)

   Another excellent pain reliever that does not cause constipation.

   It must be used very cautiously in the elderly and those with kidney problems because it might cause kidney failure.

   They may cause stomach ulcers. If you experience any pain in the upper abdomen you must stop this medication immediately and seek advice.

   It is uncommon to need anything stronger than these medications after you go home. Try and avoid Codeine or narcotic containing products – like Panadeine, Panadeine Forte or Endone as they cause constipation and may put strain on your repair.

Eating

It is usual to return to a normal diet within a day of surgery. There are no restrictions. It is very common to feel slightly nauseated for 12 hours following surgery.

Urinating/Bowel Movements

After any surgery a patient may have trouble passing urine. This is uncommon and usually temporary. Occasionally a catheter needs to be inserted to help you pass urine.

There may be some disturbance to your bowels in the week after any type of surgery. Drink plenty of water and eat healthy food with fruit and vegetables. If there are still problems an over the counter laxative like Movicol will help.

Because the wound is very close to the anus, wiping your bottom after surgery can be tricky. A good idea it to get in the shower and let the water run over the area to get it clean. It is also important to make sure the area is hair free during the healing process and this can be done by washing off the area in the shower twice a day.

Activity

It is usual to be discharged 1 – 2 days after pilonidal sinus surgery. It is very important to begin light activity shortly after surgery. This is to prevent pneumonia, clots in the legs and loss of general condition. You should avoid strenuous activity associated with a lot of sweating until the sinus is healed.

AFTER DISCHARGE

Your Wound

Where the sinus is evacuated with the telescope

You will go home with the PICO dressing on. You will usually need to wear it for about a week (see below).

Where the sinus is cut out

If you have elective pilonidal surgery where the sinus is cut out, you will have several stitches in the wound. These are usually removed in about 2 weeks. Initially, you will have a dressing covering the wound. This will be a pad and a piece of gauze impregnated with Vaseline. The pad can be changed the day after you go home. Try and avoid getting the wound wet for at least 5 days after surgery. After this, you may let water run over it. Do not rub the wound. Pat it dry with a towel.

After you have a bowel motion, do not rub the wound. The best way to clean your bottom, is by washing it off in the shower for the first few weeks.

You can cover the wound with a simple pad to keep your underpants from soiling. (Women's sanitary pads are a cheap way to do this).

If you have emergency pilonidal surgery, you will have an open wound that may be several centimetres deep. This will usually have a PICO vac placed over it and I will change this dressing every 3 – 4 days in the rooms.

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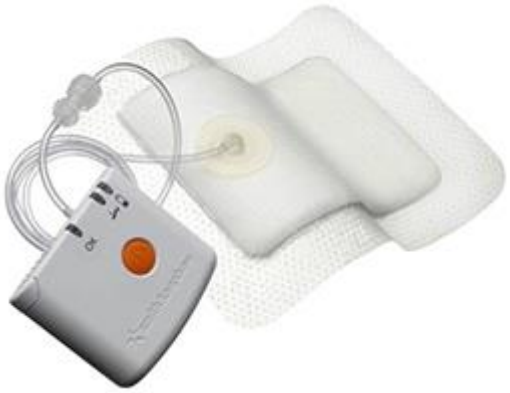
As a sinus heals, a lot of extra tissue grows. We may use a product called silver nitrate in the wound to burn this tissue off and form a scab. This is painted on the tissue. This process causes minor discomfort and the wound will turn a grey colour.

HOW TO LOOK AFTER YOUR PICO DRESSING

This dressing covers the wound and applies low pressure suction by way of a small pump. It is not suitable for everyone, but it does seem to heal wounds quicker than dressings without suction.

A PICO is a great bandage because it seals the wound and saves the need for daily dressings. It is excellent for wounds that are not leaking too much fluid. (Remember all wounds leak a little bit).

The batteries in the pump last for about 7 days. The dressing is totally portable and discrete. It can be carried in your pocket.



A PICO vac (Smith and Nephew) that may be used on your wound

Care of your PICO Dressing

The dressing will be put in place before you leave the hospital. The pump will be switched on. The pump is working if the green light is flashing. The pump will make small noises from time to time as you move and the suction adjusts.

FREQUENTLY ASKED QUESTIONS

Can I get my dressing wet?

Yes, a little. These dressings are water resistant and will tolerate splashes in the shower. Do not soak the dressing as it may lift. You should not swim with the dressing on. The pump pack should not get wet. Use the long cord to place the pump out of reach of the water when you are in the shower.

What happens if the pump is continually making noise?

If the pump is continually vibrating it means it is trying to maintain suction. There will be a leak somewhere around the edge of the dressing. If you have taken some of the extra adhesive strips home it is fine to try and reinforce the dressing until the vac works again. If

you cannot get it to “vac”, simply turn the pump off. This is done by holding down the orange button for 2 - 3 seconds. If it is the middle of the night, leave it off and call my office the next day for further instructions. Turning the pump off is not the end of the world and is not an emergency.

What happens if there is some soiling on the dressing?

PICO dressings are made to hold a large amount of fluid. The suction action of the pump will draw fluid out of the wound continuously and this is good. Because the dressing is white you will see staining on it. The dressing does not need to be changed unless the staining spreads all the way out to the edges and becomes heavy and sodden “like a wet baby nappy”. Call the office if you have questions. These dressings are designed to be changed twice a week.

What about going to the toilet?

Some people will have the dressing very close to their anus. You can go to the toilet in the usual way and wipe the area with toilet paper. Some people may prefer to wash their bottom with the shower. The pump may make some adjustment noises as you strain to move your bowels.

My dressing is smelly

An odor coming from the dressing frequently occurs. If the dressing has been on for 3 - 4 days it can be very strong. This is usually due to a bacteria called pseudomonas that lives on the surface of most wounds. The smell is sometimes accompanied by a small amount of greenish discharge. All of this is normal. There is bacteria in every wound and usually the wound does not need to be swabbed and antibiotics do not need to be given. What is not normal is a large amount of green fluid that is completely soaking the dressing.

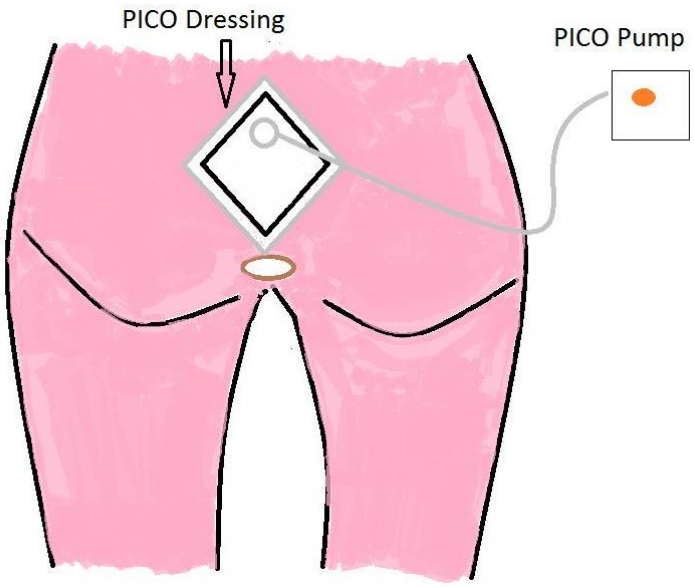


Diagram of how the PICO will look when it is placed over the sinus

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Body Hair

It is difficult to know what to do with back and buttock hair. It seems that hair on the head contributes the most to forming these sinuses. Usually, I will attempt to keep the local area hair free during the healing process. I have an IPL laser in the office and I will treat the area if needed every two weeks. It takes at least 6 – 8 weeks to reduce the amount of hair with the laser. The hair loss is largely permanent.

Shaving, waxing or depilatory creams also work but the hair loss is not permanent.

After the sinus is healed it is important to make sure hairs do not collect in your natal cleft. You should carefully washout your natal cleft every day.

Activity

Do not drive until you feel you can respond in an emergency.

You may walk normally and climb stairs.

You may start some light exercise when you feel comfortable. Strenuous sport should be avoided until the sinus is healed.

You may gently swim when the wound is healed.

You may resume sexual activity when you feel ready unless I have told you otherwise.

How you may feel

It is quite common to feel quite tired for a few weeks after surgery. It is easy to feel down in the dumps when you have a pilonidal because of the length of time it takes to heal.

Follow-up

Pilonidal sinuses need intensive follow-up. Expect to see me up to twice a week until the sinus has healed. This can sometimes take several months.

WHAT PREPARATIONS DO I NEED TO MAKE BEFORE MY SURGERY?

Hospital

The hospital and my rooms will call you the day before your operation to confirm your admission time.

Fasting

You must have nothing to eat or drink for six hours prior to surgery. (You may take sips of water up until 2 hours before the operation and you may take your medications with a sip of water). You may brush your teeth. You must not chew gum or smoke on the day of the operation.

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Shaving and showering

You do not need to shave any body hair before the surgery. I will do this with do this with sterile clippers after you are asleep, just before the surgery commences. I will usually perform the first laser hair removal during surgery.

There is no evidence to suggest that having a shower with antiseptic prior to surgery decreases infection rates, so just shower normally on the morning of surgery. Do not use any perfume.

Make up, nail polish and jewellery

I understand that some women feel quite anxious about going without their make up. Most of your body will be covered during the operation, so it is important that the anaesthetist can see your face clearly. Your colour can be a good indication of how much oxygen you are getting. For this reason, it is best to come to theatre with a clean, make up free face.

Nail polish is OK with me as long as you keep it clear on your fingernails. Coloured nail polish can interfere with the device we use to measure the oxygen in your blood. For many women, having a pedicure the day before the surgery is a good way to relieve some anxiety.

Any jewellery you are comfortable with removing, you should leave at home. If you would like to leave your wedding ring on, you may, but this will be covered with tape for the duration of the surgery.

Glasses and contact lenses

You should remove your contact lenses prior to coming to the hospital. You do not need to bring your glasses to theatre either. You can use them again when you are back on the ward.

False teeth, caps, crowns

Do not remove your teeth before you come to the operating theatre. They will usually be removed by the anaesthetist after you go to sleep. Keeping your teeth in will help the anaesthetist get a good seal on your mouth with the oxygen mask. Your teeth will be well taken care of during your operation and returned to you in recovery before anyone can see you.

Preparations at home

Ensure that you have someone available to care for small children for a week or so, to take the pressure off your recovery. If you are handy in the kitchen, try to cook and freeze some easy meals to have on hand for when you do not feel like cooking. Another option is to consider ordering precooked meals from companies like Lite ‘n Easy. Consider hiring some help around the house for a few weeks after the surgery or enlist willing (or unwilling) relatives to help out. Make sure all your bills are paid ahead or on automated payments to reduce the things you have to think about in the recovery period.

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Medications

- If you are on blood thinners such as Aspirin, Warfarin, Plavix, Iscover, Clopidogrel, Pradaxa, Dabigatran, Rivaroxaban, Xarelto or anti-inflammatory drugs (Brufen, Mobic, Voltaren, etc), they can cause bleeding during surgery. I will advise you about what to do with these drugs prior to surgery. You must let me know about these drugs and the decision to stop them is based on each individual patient's needs.
- Diabetic medications: I will give you advice on whether to take your diabetic medications on the morning of surgery or not. Some diabetics will be admitted the night before the operation and be looked after by a diabetic doctor.
- If you are on Prednisone, you should not stop this drug suddenly.
- Cholesterol lowering medication should not be taken when you are fasting.
- If you are taking any complementary medications e.g. St John's Wort, fish oil or garlic, you should stop these tablets one week before surgery as they may result in excess bleeding.
- You may continue to take a multivitamin.
- Continue to take all other medications, even on the morning of surgery, with a small sip of water.

Other things to know

- If you smoke, it is in your best interests to stop completely as soon as you can. See your GP for alternatives or call Quitline (13 18 48) if you wish to seek advice.
- You should also abstain from drinking alcohol 24 hours prior to any surgery.
- Bring all your current medications with you to the hospital.
- Bring comfortable pyjamas, personal toiletries, small change for newspapers etc.
- Bring something to do - DVDs, books, laptops. Alternately you can use hospitalisation as an opportunity to rest completely without distractions from the outside world.
- Do not bring large amounts of cash or valuables.

WHAT WILL THIS SURGERY COST?

I largely work as a 'no-gap' doctor. This means that the surgeon fee for your operation will be sent to your health fund and there will be no 'gap' or extra money to pay. There are always exceptions and decisions regarding this are made on a case-by-case basis.

If you do not have private health insurance or if you have overseas insurance, you will be given a quotation for surgery, anaesthetic and hospital fees which ***must be pay in full 7 days prior to the operation.***

Outpatient consultations are not covered by the health funds and there will be a charge for these meetings. You will get a proportion of this money back from Medicare. There is no fee to be paid for normal care after the operation.

There may be other out-of-pocket fees from your anaesthetist and any other specialists who are asked to look after you. You should ask them ahead of time about any out-of-pocket costs. Ask us who will be performing your anaesthetic and you can make enquiries with them.

There may be extra costs for X-ray, pharmacy and pathology. You have a right to gain 'informed financial consent'. Fees from other practitioners are beyond our control and you should ask for the costs from each person who is asked to look after you. Patients have a choice when it comes to paying for their health care and you are fully within your rights to shop around.

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YOUR JOURNEY THROUGH THE OPERATING THEATRE

HOW YOU MAY FEEL BEFORE SURGERY

Having a general anaesthetic (being fully put to sleep) can very scary for some people. It brings up issues about loss of control. People worry about what may happen when they are asleep.

Having an anaesthetic involves a lot of trust and in the end you will have to take a leap of faith and believe that you have chosen a team that will look after every part of your body. You should read this article if you would like to know exactly what goes on just before, during and after an anaesthetic for major surgery. For some people, understanding precisely what happens in the operating room brings a sense of calmness.

CHECKING INTO THE OPERATING THEATRES

You will be greeted at the front desk by one of our friendly executive staff who will do the administrative paperwork. They will also collect any hospital excess you may have to pay. Please bring your health fund and Medicare cards. They will also want to know about your next of kin. With your permission I will call a nominated family member at the end of the surgery and the recovery nurse will also let them know when you are ready to go to the ward.

For major surgery, it is best that you remove ***all*** your normal clothes including your underpants and bra. This is so we don't lose them or mess them up with blood or antiseptic fluid during your surgery. You will meet one of the pre-op nurses who will help you change into your glamourous theatre gown and paper underpants. For abdominal operations, it is very common that you will wake up completely naked i.e. without your paper underpants. We often remove them in the operating theatre to keep them away from the area we are operating on. Your modesty will be protected as much as possible. Contrary to what you see in the movies, your bottom will not be on view out the back of your gown. Hospital robes wrap around your rear.

You will be measured and fitted with white, knee high stockings to prevent clots in the legs. For some operations, you may have a pair of pneumatic leg warmers placed on your calves to gently massage your legs while you are asleep. This prevents clots in the legs. The look is complete with a puffy paper hat. Any jewelry you would like to keep wearing, like a wedding band will be covered with tape.

You will be weighed and your temperature, blood pressure and pulse will be checked. You will be asked about your allergies and will be given an ID band that will stay on for your entire stay. The nurse will ask you if there are any implants or metal in your body. We ask this because we need to place an earthing plate on your body during the surgery and need to place it away from any internal metal.

You will then go through many repetitive identification processes to make sure we have the right patient and that everyone agrees on the operation you are having done. You will be put on a bed and you will wait and wait and wait until it is your turn to be called into

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theatre. This waiting can be quite stressful, and you will feel hungry. You may want to bring something to do during this time. There is also a TV to watch and magazines to read. Rest assured we are moving as fast as we can and because unexpected events happen all the time, delays in hospitals are inevitable. It is possible to develop a headache due to caffeine withdrawal. This is not harmful, and you may have two Panadol with a sip of water to help.

Your clothes, glasses, valuables will be put into a bag and your belongings will be put into a locker whilst you are in theatre. You will be reunited with them when you return to your room in a ward or intensive care. If you have come to theatre from the ward, your belongings will stay in your room and await your return. If you are going to intensive care after the surgery, your belonging will travel with you.

Why do I have to starve before surgery?

For an arranged operation, you must have absolutely nothing to eat or drink for six hours before you go to sleep. When you have an anaesthetic, all the muscles in your body relax. If you have food in your stomach, it can reflux back up into your mouth and even worse, your lungs. This can produce a life-threatening pneumonia. You must also not chew gum prior to surgery as this increases the fluid in your stomach. You may drink clear liquid up until 2 hours prior to your operation. I may give you a sugary drink two hours prior to surgery to help you feel less thirsty and speed up your recovery. It is OK to take your normal medications with a sip of water any time before surgery. It is also fine to brush your teeth.

Special circumstances

There are a few instances where certain precautions take place.

Latex allergy:
Please let the admission nurses know if you have a latex allergy. We need to remove all the latex products from the operating theatre to protect you.

If you take certain medications:
If you have recently had chemotherapy or take immune suppressing drugs like azathioprine or methotrexate, special measures will be taken to protect staff members against coming into contact with these drugs.

If you have certain bacteria on your skin:
Many people have bacteria living on their skin that have been given special names by hospitals. It is likely you will know this from a previous hospital admission. This does not mean you have an infection. We all have bacteria living in and on our bodies, some just have special names and some have a higher chance of being resistant to some antibiotics. It is best if these bacteria are not passed onto other patients as it promotes antibiotic resistance. If you are MRSA “golden staph”, VRE, CRE or MRAB positive, then isolation precautions will be taken throughout your stay in the hospital.

If you have false teeth or plates:
Please leave these in. It makes it easier for the anaesthetist to help you breathe as you go off to sleep. If needed, the anaesthetist will remove them after you are asleep and they will be returned to you in recovery.

TAKING YOU INTO THE OPERATING THEATRE

You will be wheeled around to the operating room by one of the theatre orderlies or a nurse. This is where you will say goodbye to your relatives. They will be next able to see you when you return to the ward. Because there are other patients in the recovery unit, relatives are not permitted.

The next stop is the anaesthetic room. This is a small cubicle adjoining the main operating theatre. The orderly will hand you over to the nurse assisting the anaesthetist. You will then have another identification check (you will be very good at reciting your name by this point).

Then the anaesthetist will arrive. They are the person with the good drugs that will make you relaxed, so be nice to them! If they have not met you earlier, they will go through your medical history again and what to expect. They may also explain some risks of anaesthesia, but because you have read this book, you will be aware of them already. This is not meant to scare you. It is our job to tell you about the good and bad aspects of surgery.

The only thing that will go into your body while you are awake is a small plastic tube in your hand called a cannula, drip or IV. This is a small needle and will hurt for a second or two. When it is in the vein, the needle is taken out and a soft plastic tube is all that is left. Once in, you should not be able to feel it. It is secured with tape and you may move your arm. The drip is used to give the medication that will put you off to sleep. If you are having an epidural for post-operative pain relief then this will be done prior to going off to sleep.

Occasionally, some patients have a severe needle phobia. This one small needle can create terrible anxiety. If this is the case, we can sometimes give the anaesthetic without a needle at the beginning. This is done by asking you to breathe on gas for a few minutes. You will drift off to sleep. The IV is placed once you are fully out and you will know nothing about it. This is a slower way to go off to sleep, but for some people avoiding a needle while awake makes a big difference.

Once the IV is in, you will be taken into the main operating theatre. This can be a confronting place too. There are usually 5 - 10 people in the room, all wearing masks and talking. We are all there to look after you. Most operating theatres are set up in a predictable way. There will be an anaesthetic machine with all the monitors to ensure you are safe. There will be several tables filled with surgical instruments ready to perform your surgery. There will also be nurses preparing this equipment and counting each and every instrument to ensure that nothing is missing at the end of your operation. There may also be junior medical staff and orderlies. The operating table is in the middle of the room under big lights. They will not be turned on until you are asleep. The table is narrow and cold. It is narrow because we need to stand close to you to operate and it won't be cold for long because during the surgery you will covered with a heating blanket.

The trolley you are on will be placed beside the operating table and if you are mobile, you will be asked to move yourself across onto it. The nurses will make sure you are not lying on your gown as it will usually need to be moved aside to expose the area we need to operate on. If you are in pain or not mobile, we will slide you across to the operating table on a special board or float you over on a noisy hover mattress. A lot of activity will then

happen around you. We will place padded boards on the side of the bed for you to rest your arms on. Your leg massagers will be hooked up and switched on and you will feel a gentle compression on your calves.

You will have three stickers placed on your forehead. This helps the anaesthetist monitor how deeply asleep you are. Sticky dots to monitor your heart beat will be placed on your chest. Fluid will be hooked up to your IV line and a clip that reads your pulse placed on your finger. A blood pressure cuff will be wrapped around your arm and the first time it takes your blood pressure, it will inflate very tightly. It will only do that once.

You may already be feeling happy, drowsy or talkative as the anaesthetist may have given you a relaxing medication via the IV. You will not go to sleep yet, but it is unlikely you will remember anything after this until you wake up in recovery even though you will continue to talk to us.

WHAT HAPPENS DURING AN ANAESTHETIC

Sometimes knowing what happens during an anaesthetic really helps you relax and realize that you are well taken care of while you are asleep. Many people's greatest fear is the anaesthetic. They worry about vomiting afterward, being aware during surgery and not waking up. Whilst these things very, very rarely occur, having an anaesthetic is actually far safer than anything you have already done that day, like driving into the hospital.

General anaesthetic consists of three phases

1. **Going to sleep – similar to taking off in a plane**

   Just before you go to sleep, the anaesthetic nurse will ask you to breathe into a mask and fill your lungs with oxygen. This makes sure that you have the maximal amount of oxygen in your blood. This does not put you to sleep. A white medication called Propofol is then given through your IV. The anaesthetist will ask you to keep your eyes open. As this medication goes into your veins, it can cause a stinging sensation in your arm. This is normal and does not damage you. After this injection you will be asleep in about ten seconds. Your breathing will temporarily stop and the anaesthetist will take over your breathing for you by blowing oxygen into your lungs. As soon as you are asleep and if you are having abdominal surgery, the anaesthetist will give a medication that stops your muscles moving. This has many functions. It allows your throat to relax so the anaesthetist can safely place the breathing tube into the windpipe. It also relaxes your abdominal muscles and makes surgery on the abdomen easier. If you have false teeth, they will be removed at this point and returned to you in recovery.

   As soon as the muscle relaxer has worked, the anaesthetist will use a special tool called a laryngoscope. This is a smooth spatula with a light that is inserted over your tongue and deep into your throat. The anaesthetist will be able to see your vocal cords and beyond this is your trachea or windpipe. A specially designed hollow tube is placed down the spatula and into the wind pipe. A balloon on the end of the tube is inflated by the nurse to fully occlude your airway and stop any vomit or secretions from entering your wind pipe.

This is often the trickiest part of the anaesthetic and your life can depend on it. There are many signs the anaesthetist will look for before you go to sleep to predict whether getting this tube down will be difficult or not. If you have a small jaw, previous difficulties with intubation, neck problems, difficulty opening your mouth, the anaesthetist will be ready with a different strategy to get the tube down your throat safely. Because your breathing is our number one priority, occasionally putting the breathing tube down can result in damage to your teeth or cuts to your lips. All care is taken and this is uncommon. Having a tube in your throat can leave it sore and dry for a day or too. This is transient. You may also have a swollen uvula (the dangly bit at the back of your throat) for a few days.

Before the surgery starts, if appropriate, you will be given a dose of antibiotics via your drip to help lessen the risk of wound infection. Soft tape will be placed over your eyes to keep them closed and protected. There are other devices we use to monitor your wellbeing during surgery. Tubes like urinary catheters and IV lines will now be placed. Your arms and legs will be padded to protect your pressure areas and you will be positioned for surgery.

2. Staying asleep during the surgery – cruise control

You will be kept asleep by anaesthetic gas piped in via the tube in your windpipe or by a continuous infusion of Propofol in your drip. The anaesthetic machine will steadily and precisely breathe for you. Your anaesthetist will never leave your side and constantly monitors your vital signs. They will give you small doses of medications and fluids to keep everything steady.

3. Waking up – landing the plane

As the surgery comes to an end, the anaesthetist will give you strong dose of pain killer, so you will wake up in comfort. They will turn the gas off and give a medication to reverse the paralysis. While you are still asleep, you will be transferred onto your bed. When you are breathing by yourself, the anaesthetist will remove the breathing tube and suction your throat. Patients rarely remember this. An oxygen mask will be placed on your face and you will be wheeled out to recovery.

APART FROM THE SURGERY, WHAT ELSE HAPPENS WHEN I AM ASLEEP

If you have body hair on the area having surgery, it will be clipped off. Often a larger area that is needed will be shaved. An earthing plate will be placed somewhere on your body, so the electrocautery device can be used to stop bleeding as required. This will be removed before you wake up.

Just before surgery, everyone in the theatre will stop what they are doing and check once again your identity and the operation we are performing.

WHAT SOME PEOPLE WORRY ABOUT BUT WERE TOO AFRAID TO ASK

What if I have my period on the day of surgery?

This makes no difference to you or us. Having a period is a normal part of life. I would suggest that you use a pad and not a tampon as it may be some time before you can change it. If you have any questions about this, ask the nurse who checks you in.

My bladder feels full – will I wet myself?

Just before you go into the operating theatre, many people feel like they need to pass urine. This is usually anxiety. If you have gone to the toilet in the waiting area, it is very unlikely that you will need to go again.
For big operations, we will put a tube in your bladder that will catch all your urine. If you are having a smaller operation and still need to go once you reach the theatre, the nurse will take you to the bathroom.
It is a fact of life that some people occasionally wet themselves during the operation. It does not bother us and you will be cleaned up before you go to the recovery room.

What if I think I am pregnant?

You must let us know at check in, even if you are only suspicious. If you are pregnant it is likely we will delay the surgery. If you are not sure, there are quick pregnancy tests available to check. It is essential that we know because the surgery and anaesthetic drugs can harm your unborn child and even lead to miscarriage.

I always vomit after an anaesthetic

Nausea and even vomiting can happen after an anaesthetic. It is such an unpleasant feeling that it may be an enduring memory of previous surgery. Post anaesthetic nausea is more common if you suffer with motion sickness. Your anaesthetist will discuss this with you and there are many strategies to avoid this troubling side effect.

What if I am breastfeeding?

Breast feeding should not stop you from having a surgery you need. Very small amounts of anaesthetic and pain relieving drugs will pass into your breast milk. Theoretically, this is low risk for your baby. Anaesthetic guidelines suggest you pump and discard breast milk for 24 hours after an anaesthetic. Your baby will need to be fed with previously pumped milk or formula. It is almost certainly perfectly safe however to feed your baby less than 24 hours later. Whether you are up to it of course is another matter. Occasionally, surgery may cause a decrease or even cessation of your milk supply.

Who will be in the operating theatre with me?

It is necessary for your safety for a number of staff, both male and female to be in the operating theatre both before and during you surgery. In addition to your surgeon and anesthetist, there may be junior doctors, a number of nursing staff, theatre orderlies and x-ray technicians. As this is a teaching facility there may be medical students present.

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All of these staff are highly professional. There are definitely moments where you will be exposed whilst preparing you for surgery, but extreme efforts are made to preserve your modesty.

Do you play music while I am asleep?

No. We are concentrating on your care. Music tends to be a distraction. There are many sounds of machines and monitors in the operating theatre and we are listening to those. We also need quiet to enable communication between staff.

What if my bowels work while I am asleep?

This is quite uncommon. If it does occur however, you will be cleaned up prior to moving to recovery.

I am worried about waking up during the operation

Awareness during anesthesia is exceptionally rare. Making sure you are fully asleep is the anaesthetists' main objective. There are a number of monitors and alarms that you will be hooked up to absolutely ensure that this doesn't occur.

I am on the oral contraceptive pill

There is a medication given as the end of some anaesthetics that can interfere with the effectiveness of the pill. Please tell your anaesthetist if you are on the pill. If the medication is used, then you will need to use an alternate contraception for two weeks to avoid pregnancy.

I am worried about my memory after the anaesthetic

There is no doubt that a condition called post anaesthetic cognitive disorder is a real thing. It is more common on patients over 60 and it can result in memory loss that may be permanent. It is not fully understood. If you have concerns, your anaesthetist would be happy to discuss it with you.

RECOVERY – THE WAKE-UP ROOM

When you wake up, is likely that you will be wearing a gown but be completely naked underneath. You will be covered with a blanket.

The recovery room is the first thing most patients will remember after going to sleep. It will almost be like no time has passed.

You will have a nurse by your side monitoring your vital signs. You will stay in recovery until you are fully awake and your observations are within normal limits. The nurse will monitor your pain and keep you comfortable.

If you have a catheter in your bladder, you may feel a need to pass urine. This feeling will go away.

As you wake up you may have a tube in your throat that the nurse will remove. It is unlikely you will remember this.

If you snore you may have a small tube in your nose or mouth to help you breathe until you are fully awake.

If you have false teeth, they will be returned to you in recovery.

Your family is not allowed in recovery so we can respect the privacy of other patients.

RETURN TO THE WARD

When you return to the ward you may be drowsy, nauseated or in pain. Your nurse will be monitoring these things closely.

They will be checking you pulse, blood pressure, temperature and dressings regularly for abnormalities.

There is a very strict criteria of observations that the nurses must follow. If you fall outside these criteria for any reason the nurses must notify the medical team. Very often this is just a false alarm. It may sometimes seem dramatic, but it is done for your safety.

If you are on strong pain killers like morphine or Fentanyl you will be required to wear an oxygen mask.

HOW DO I HANDLE MY ANXIETY?

Every person suffers from some level of anxiety. You are not human if you do not. Having an operation is up there in the top ten of major life events. A little bit of anxiety can be good thing. It can make you hesitate before taking a misstep. When anxiety gets out of control however, it becomes a medical problem and stops you doing things that you should or want to do. Some people suffer anxiety about many things and for some it can be an issue only in certain situations.

Common symptoms of anxiety are

- Overwhelming negative thoughts
- Sleepless with worry
- A constant stream of bad thoughts “the chatter”
- Physical symptoms such as chest pain, nausea, headache

There are many techniques to address your anxiety. There are mindfulness, meditation and distraction techniques. Sometimes anxiety is so bad that medication is needed.

It is normal to be anxious before surgery but if the feeling of anxiety is overwhelming please talk to me or your GP about it. Help and suggestions are also available at Beyond Blue: www.beyondblue.com.au

ABOUT YOUR SURGEON

A/Prof Kellee Slater MBBS (Hons) FRACS FACS

2018	Associate Professor University of Queensland
2015	Fellow of the American College of Surgeons
2017-2019	National Chair of the Australian Board in General Surgery
2006 – Present	Staff Surgeon Hepatopancreatic-Biliary-Liver Transplant Princess Alexandra Hospital and Greenslopes Private Hospital Brisbane, Queensland
2004 – 2006	Hepatobiliary and Liver Transplant Fellowship Princess Alexandra Hospital Brisbane, Queensland
2002 – 2004	Liver and Kidney Transplant Fellowship University of Colorado Hospital Denver, Colorado, United States of America
2002	Fellow of the Royal Australian College of Surgeons (FRACS) General Surgery
1989 – 1994	MBBS (Honours) University of Queensland