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# **INSERTION OF PORTACATH**

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 enti	ance
of the hospital, there is a pharmacy on the left. At the end of the pharmacy, there is a lift. Tak	e this
to Level 1. This is Admissions.	
You will need to stop eating food from:	
You can drink <u>CLEAR</u> fluids until: then it is NIL BY MOU	JTH.
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 twww.	10
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.	

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# WHAT IS A PORTACATH?

A portacath is a plastic catheter attached to a small port or reservoir. It is placed in a large vein in the neck. It is implanted beneath the skin just below the collar bone. Aside from a visible lump, there is no tubing to be seen and the device is completely covered by healed skin.



#### WHY IS A PORTACATH INSERTED?

A portacath is used when people need to have frequent intravenous injections of drugs e.g. chemotherapy, immune treatments. These drugs must be given into a large vein because they can damage the small veins in the arms.

Having a portacath enables the needles to be inserted relatively painlessly and leaves the arms free for other activities. It also saves the veins in the arm from being damaged from long term use.

#### **HOW IS THE PORT USED?**

The port is completely under the skin. It has a small chamber that is filled with fluid. When it needs to be 'accessed' a needle is inserted through the skin and into the port. This needle may stay in for many hours and you will not feel it. Nurses must be specially trained to put the needle in the port to prevent infection. The skin under the port will become numb very quickly and there should be very little discomfort involved.

#### WHAT LIQUID IS IN THE PORT?

The port will contain a liquid medication called Heparin. This helps to stop clots forming in the tube as they can block the port. This Heparin will be removed from the port before each use and put back in again after.

1

#### **HOW IS A PORTACATH INSERTED?**

It is normally done as a day procedure under a general anaesthetic (completely asleep).

A tube is placed in one of the four large veins in the neck (either the subclavian or jugular veins of either side.) The tube is about 15cm long and its tip sits at the point where these blood vessels enter the heart. Its position is checked with an X-ray before you leave the operating theatre.

These veins are accessed via an incision about 3cm long just under the collar bone on the right OR left side. The position of these large veins may vary in each person. Some people do not have a vein in the expected position. Sometimes it is necessary to try on both sides to successfully insert the catheter.

The tube is attached to a port about the size of a 50-cent piece. This is anchored to the muscle of the chest wall and covered with skin.

#### **HOW LONG CAN A PORTACATH STAY IN?**

A port can safely stay in for many months and even years. It is left in until you have finished your treatment. Your oncologist will usually advise me when it is ready to be removed.

If it becomes infected it will need to be removed urgently (see below).

#### **HOW IS THE PORT REMOVED?**

Taking the port out is usually easier than putting it in. It can be done under a local or general anaesthetic and takes about 10 minutes. The old incision is reopened and the port removed.

#### WHAT ARE THE COMPLICATIONS OF PORTACATH INSERTION?

There are a great many complications of portacaths outlined below. I must stress that most of these are uncommon and the benefits of having a portacath outweigh the risks.

#### **General Risks:**

Anaesthetic risks: like any surgery, there is a small risks of severe allergy, inhalation of vomitus, drug reaction, teeth damage and even death during an anaesthetic (1/50,000).

#### Risks specific to portacaths:

**Pneumothorax**: The large blood vessels of the neck are very close to the lung. When placing the port, the lung may be punctured. An X-ray will be taken of your chest in the

recovery unit to determine if this has occurred. If it has, then you may require a small tube to be placed in your chest to evacuate the air. You will then need to stay in the hospital for observation. The tube will usually be removed within 2-3 days. Rarely does this problem require surgery to fix the puncture.

The punctured lung is usually obvious immediately, but in some cases, it may not present itself for several days. If you experience shortness of breath, you should return to the hospital.

**Abnormal heart beats:** This may occur during the surgery and is usually quickly correctable. Rarely, in patients that are very unwell it can be fatal.

**Infection:** There are two types of infections that occur.

**Infection of the skin wound** occurs in the first 5 days of the surgery. This can sometimes go on to infect the port itself. Aggressive treatment with intravenous antibiotics is usually required.

**Infection of the port** may occur at any time. Bacteria love to live on plastic and you must notify your oncologist if you have a fever, new pain or redness over the port.

**Bleeding:** It is common to have mild bruising around the port for a week or so. This can be improved by sleeping in a 45-degree position for the first 24 hours and not lying flat. Rarely a large bleed may occur around the port that will require a return to the operating theatre.

Breakage of the catheter: like all man-made devices, these plastic tubes can break while they are inside your body. It is unlikely that you will have any symptoms. This may be discovered in many ways: the port may suddenly stop working, it may be seen to be broken on an X-ray, it may be seen when the catheter is removed. Complete breakage of the catheter will result in a piece of plastic lodged in the heart or lungs. This is usually retrieved in the X-ray Department with special tools. This complication is rare.

Flipping of the port or kinking of the tubing: Occasionally the stitches anchoring the port to the chest wall do not hold and the port can flip over causing it not to work. This requires surgery to fix it. The tubing may also kink and the port will not work.

Clot in the arm that may travel to the lung: any plastic tube placed in a blood vessel can cause a clot to form. This is fairly common and probably occurs in a minor way with all ports. Extensive clots may sometimes form, resulting in arm swelling (usually temporary). Rarely this clot may travel to the lungs and cause pain, shortness of breath and even death. If a major clot forms, the port is often removed and occasionally you will be put on blood thinning products like Warfarin for a short time.

**Port too deep to access:** in women (because of breast tissue) and in obese people, the tissue over the port can be very thick. This makes the port difficult to access. Every effort is made to remove excess fat over the top of the port at the first surgery. Further surgery may be required to improve things if the port is still too deep. Removing this excess fat can lead to a visual 'divot' in the skin over the port.

Damage to the large arteries of the neck: the arteries of the neck lie directly behind the veins. Rarely, a port may be placed inadvertently into the artery. If this occurs, a bigger incision will be required and a vascular surgeon will need to repair the artery

**Damage to the lymphatic duct of the neck:** in the left of the neck there is a large pipe that carries clear fluid called lymph. Very rarely this can be damaged when the port is inserted. This may result in a large collection of lymph in the chest and may require a drain in the chest or surgery.

Long term narrowing of the vein to the arm: this is rare, but scarring may lead to difficulty of the blood draining from the arm. The arm may swell. The main consequence of this is that it may affect you if you ever require dialysis for kidney failure.

#### **Other General Problems:**

- Complications related to having a general anaesthetic: heart attack, stroke, allergic reaction. This is uncommon.
- Other Infections: wound, pneumonia, urine, IV line related.
- Clots in the legs that may travel to the lungs and be fatal (DVT).
- Wound pain and abnormal (keloid) scarring.

#### 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.

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

Sitting at 45 degrees will be very helpful in controlling pain and, therefore, swelling.

The best type of pain reliever is:

#### Panadol, Paracetamol, Panamax

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

It does not cause constipation.

**Do not** take more than 8 tablets a day.

If you need something stronger, Panadeine and Panadeine Forte can be helpful. They will cause constipation.

#### Needle in the port

In the first two weeks after the portacath insertion, it will be quite uncomfortable to access with a needle. If you need chemotherapy straight after the port insertion, I will leave the needle in the port and it can be used as soon as you wake up from the anaesthetic.

## **Eating**

It is usual to return to a normal diet within a day of surgery. There are no restrictions. It is common to feel nauseated and vomit on the first day because of the anaesthetic drugs.

#### **Activity**

It is usual for a portacath to be inserted and to go home the same day. 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 until your wound is healed.

#### AFTER DISCHARGE

You will normally be discharged the same day, after having something to eat. If there are any serious problems after going home, either call the rooms or attend the Emergency Centre at Greenslopes Private Hospital. If it is an emergency, dial 000.

Sleeping with your head slightly elevated on pillows is recommended for at least 24 hours to decrease the swelling associated with the port.

#### **Your Wound**

You will have a waterproof dressing over your wound. You may shower with this on. Remove this dressing after 5 days and leave the wound open. You may get it wet after this time. There will be no stitches to remove. It is normal for an 'end' of stitch to poke out of the corner of the wound. If this bothers you, you may trim it off, otherwise it will fall off in about 6 weeks.

#### **Activity**

Do not drive or sign legal documents within 24 hours of an anaesthetic.

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

You may start some light exercise when you feel comfortable. Strenuous sport should be avoided for about 4 weeks. I recommend that you do not ever perform very heavy activities with the arm the portacath is in. (Manual labour, physical sports).

You may gently move your arms and shoulders. Do not avoid this otherwise your shoulder may stiffen.

You may swim when the wound is healed.

You may resume sexual activity when you feel ready.

#### How you may feel

It is quite common to feel quite tired for a few days after surgery especially with the other treatments you are going through.

# CALL YOUR ONCOLOGIST / SURGEON IF:

- You have a fever, chills, shakes, feel generally unwell.
- Have a red wound.
- Have a swollen arm on the side of the port.
- Have new pain over a previously normal port.

# 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 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.

#### 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 or deodorant.

# 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.

#### 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.

#### **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, krill oil, evening primrose oil or garlic, etc. 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 <u>must be pay in full 7</u> 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 <u>all</u> 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 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 theatre. This waiting can be quite stressful and you can get 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 ICU after the surgery, your belonging will travel with you.

#### Why do I have to fast before surgery?

For an arranged operation, you must have nothing to eat or drink for six hours before. 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. If you are having a particularly big operation, your anaesthetist may give you a sugary drink two hours prior to surgery to help 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 in.

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). The nurse will check that your consent form is completed and if you are having a surgery where the side is important, I will mark the area with permanent marker.

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. This tube is used to give the medication that will put you off to sleep. In addition, 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 have 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 you 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.

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 guiet 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 who will be 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.

#### **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

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2015 Fellow of the American College of Surgeons

2006 – Present Staff Surgeon

Hepatopancreatic-Biliary-Liver Transplant

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2004 – 2006 Hepatobiliary and Liver Transplant Fellowship

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2002 – 2004 Liver and Kidney Transplant Fellowship

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2002 Fellow of the Royal Australian College of Surgeons (FRACS)

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1989 – 1994 MBBS (Honours)

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