WHAT IS A COLONOSCOPY?

Colonoscopy is a procedure which enables the doctor to see inside your large bowel. Unlike a barium enema, which takes x-ray photographs, a colonoscopy lets the doctor see the surface inside the bowel directly and can provide more detail and accuracy than x-rays. The procedure is performed following extensive preparation of your bowel. The instrument used is a thin flexible tube containing a video camera. If necessary, small tissue samples (biopsies) can be taken during the examination, painlessly, for laboratory analysis. Polyps, wart-like growths, can also be removed using a snare wire. Blue food dye may be sprayed on the bowel to detect early polyps.

You have been referred for a Colonoscopy at the Eastern Endoscopy Centre. On the day of your procedure, expect to be at the Unit for approximately two to three hours. It is preferable to wear loose fitting, comfortable clothing, flat low-heeled shoes and a cardigan. If you are menstruating, this will not interfere with your procedure. If you use a mobility aid such as a walking stick or walking frame, please bring it with you. If you have an Advanced Health Care Directive, please bring a copy in with you.

We advise that you should not plan to fly or make any long distance car travel arrangements for three days after your procedure. Overseas travel and travel to remote areas is not recommended for 28 days post-procedure due to a risk of bleeding after polyp removal.

HOW ACCURATE IS A COLONOSCOPY?

Colonoscopy is an important tool for the diagnosis and treatment of many diseases of the large bowel. Colonoscopy is accurate, although rarely small early malignancies can be missed. The risk of this is minimised by performing a full colonoscopy to the caecum or terminal ileum. The risk of missed malignancy in current literature is approximately 1-3%. The following will ensure the risk is minimized:

1. **Your bowel is very well cleaned.**
   It is important you take the bowel preparation correctly.

2. **A full colonoscopy to the terminal ileum is performed.**
   This occurs in 99.8% of patients by our doctors.

3. **The use of Indigo Carmine Dye**.
   There is an improved detection of flat polyps with the spraying of Indigo Carmine, a harmless blue food dye, onto the bowel lining.

ALTERNATIVES TO A COLONOSCOPY

1. Virtual Colonoscopy or Barium Enema

Colonoscopy is more accurate in detecting lesions than a barium enema or a virtual colonoscopy. If a lesion is detected with these techniques a colonoscopy is still necessary. Virtual colonoscopy currently can miss up to 10-30% of significant polyps. No samples can be taken with these techniques. Virtual colonoscopy involves the same bowel prep as a colonoscopy and if any lesions are found, you will require a repeat full preparation prior to the colonoscopy procedure. Due to significant air placed in the bowel, 50% of patients find virtual colonoscopy uncomfortable. Virtual colonoscopy is, however, used for patients for whom colonoscopy is considered unsafe or incomplete.

2. Faecal Occult Blood Testing

This is a useful screening test for colorectal cancer in people without symptoms. However, on its own it only detects approximately 30% of bowel cancer. If this test is positive, then you will need a colonoscopy. If you have symptoms of a bowel disorder, then this test is not the appropriate test.

3. Capsule Endoscopy

This capsule is designed, at this stage, for only looking at the small intestine. Very minimal views or often no views are obtained of the colon.

4. CT scan, MRI scan

This is excellent for detecting pathology within the abdomen predominantly involving the solid organs such as liver, spleen, and pancreas. It is not good for the detection of polyps. It can be useful for the detection of diverticulitis.

WHAT ARE THE RISKS OF A COLONOSCOPY?

1. Intolerance to colonic preparation

After taking the colonoscopy preparation, patients occasionally get abdominal cramping, nausea or vomiting. Rarely dizziness and fainting can occur and the risk of falling is increased. Very rarely patients can have palpitations or severe imbalance of body salts - electrolytes. In view of this, a responsible adult must be present in your home during the preparation.

2. Reaction to the anaesthetic

a) Pain in the arm at the injection site, b) Bruising or infection where the cannula is inserted, c) Nausea and vomiting, d) Altered heart rates, e) Dizziness or fainting,
f) Allergic reaction, g) Aspiration of vomit from the stomach into the lungs, h) Heart attack, i) Stroke and death (extremely rare).

If you have any questions please ask the anaesthetist prior to your procedure.

3. Bleeding

This is very rare following a standard colonoscopy and biopsy. The risk is increased if a polyp is removed. This is approximately 1:1,000; <1% of standard polypectomies will bleed. However, if very large (>2cm is size) flat polyps are removed, especially from the right side of the colon, the rate of bleeding is up to 12% in some studies. Because of this, it is more likely that clips will be used to reduce the risk of bleeding. If bleeding occurs, this may require hospitalisation, IV fluids and a repeat colonoscopy to stop the bleeding. Rarely a blood transfusion and operation is required to control the bleeding. Patients on anti-platelet blood thinning medication need to consult their doctor prior to having their colonoscopy. If these are continued, then polyps would not be able to be removed during the procedure. The risk of bleeding is up to 28 days post polypectomy.

4. Perforation (hole in the bowel wall)

The risk of perforation for a standard colonoscopy without removal of polyps is approximately 1:10,000 procedures. If polyps are removed, the rate of perforation is up to 1:1000 procedures. If there is a perforation, this can present with severe pain following the procedure. This life threatening complication will require a prolonged hospital stay and usually an operation with possibly a colostomy bag for two months.

5. Acute diverticulitis can be exacerbated

A colonoscopy should not be performed within 4 weeks after an attack of diverticulitis.

6. Missing polyps and cancers

Colonoscopy with polypectomy reduces the risk of cancer but recent studies have shown that in up to 15% of procedures a significant lesion is not identified.

7. Damage to other organs

Very rarely damage can occur to other organs during colonoscopy such as damage to the spleen. Surgery may be required if this complication occurs.

THERAPIES WHICH MAY BE PERFORMED AT THE TIME OF COLONOSCOPY

1. Biopsies

These are samples taken from the bowel to look for any inflammation or any other significant pathology.

2. Polypectomy

Colonoscopy's greatest use is in the detection of colon cancer and colon polyps. Prior to the introduction of colonoscopies, removal of polyps required a major open abdominal operation, a 2-week stay in hospital and a longer convalescence. Most polyps now can be removed easily and safely without surgery. Periodic colonoscopy is a very useful procedure for the follow-up of patients with previous polyps or colon cancer. Regular colonoscopy can reduce the risks of bowel cancer by 80-90%. How frequent it is performed depends on your family history and previous history of significant polyps. Generally, this is within 3-5 years.

Polyps are abnormal growths of tissue on the bowel lining, which vary in size. Most polyps can be removed at the time of the procedure. Polyps are usually removed because they may cause bleeding or can become a cancer. Although the majority of polyps are benign (not cancerous) a small percentage may contain an area of cancer or develop into a cancer if not removed.

Removal of a polyp often involves passing a snare (wire loop) through the colonoscope over the polyp and then cutting through the stem using an electrical current. The risks involved are rare and far less risky than an operation or leaving the polyp to perhaps form a cancer. These risks range from continued severe bleeding (12% of large polyps) to perforating the colon (1 in 1,000 cases). These risks are rare but may require urgent treatment including an operation. The risk of their occurrence is far outweighed by the advantages of removing the polyp.

3. Indigo Carmine Dye Staining (Blue food dye)

This is often performed at the time of colonoscopy. It is a harmless blue food dye that is sprayed onto the lining of the bowel. This increases the detection of early and flat colonic polyps by at least 50%. You may notice blue / green discolouration of your bowel motions after this procedure.

4. Haemostasis

If a bleeding point is identified at colonoscopy, this may require therapy with an injection, the use of diathermy (gold probe) or the application of metal clips to stop the bleeding.

5. Saline Injection

If a large, flat polyp is detected, then a cushion of salty water is injected into the base of the polyp to lift it up. This reduces the risk of damage or perforation to the underlying bowel when the polyp is removed.

6 Loops/Clips

If a polyp is detected with a large stalk, a special device may be placed at the bottom of the stalk (endoloop or endoclip) to reduce the risk of bleeding after the polyp is removed. These devices are usually passed spontaneously in 1-2 weeks.

7. Tattooing

If a polyp is detected with some worrying features, then ink is injected around this polyp site. This permanently marks the site so it can always be checked again in the future, or if that area of bowel does require surgery, then the surgeon will immediately identify the site where the polyp was removed.

8. Dilatation

If a narrowing within the bowel is identified, this occasionally will require stretching (dilatation) with a special balloon that is passed through the colonoscope into this stricture and then inflated to stretch the narrowed area.

IMPORTANT INFORMATION PRIOR TO COLONOSCOPY

1. MEDICATIONS

Please continue with all your usual medications, especially all blood pressure and heart medications right up to the time of taking your preparation then follow the written instructions given to you by the Registered Nurse. Exceptions are listed below:

a. Diabetes. If you are a diabetic, special instructions will be given to you either by your referring doctor, by contacting one of our Gastroenterologists or your Endocrinologist. Please notify on booking if you are an insulin dependent diabetic so we can arrange an early appointment. If you have Addisons Disease, please consult your GP or Endocrinologist regarding your cortisone dose.

b. Iron tablets should be ceased seven days before the procedure.

c. Aspirin can safely be continued up to the time of your colonoscopy.

d. Warfarin/Pradaxa/Xarelto/Eliquis/Iprivask/Heparin therapies should be individualised by discussing with your referring doctor. The decision whether to cease these medications should only be made after discussing this with your referring doctor. If the above medications are not ceased, then significant polyps will not be removed at the time of the procedure.

e. Antiplatelet agents

Brilinta (Ticagrelor)
Effient (Prasugrel)
Iscover (Clopidogrel)
Plavix (Clopidogrel)
Ticlid (Ticlopidine hydrochloride)
Ticlopidine Hexal (Ticlopidine hydrochloride)
Tilodene (Ticlopidine hydrochloride)

Because these medications have a strong anti-platelet/anti-coagulant effect, they should be ceased for 7 days prior to the colonoscopy. However, the decision to cease these medications should only be made after discussing this with your doctor. If you do cease these medications, aspirin may be substituted (if appropriate) up to the time of colonoscopy. If the above medications are not ceased, then significant polyps will not be removed at the time of the procedure.

2. HEART PROBLEMS

Please inform us if you have a pacemaker or a defibrillator. If you have an implanted defibrillator you will need to have your procedure in a major hospital (i.e. Sunnybank Private or Mater Private Hospitals). It may also be necessary to consult with your Cardiologist.

3. RECENT TESTS

You should not have a colonoscopy performed if you have had a barium enema or a barium meal in the last 7 days. Please let us know if you have had these tests performed recently.

RESULTS EXPECTED AFTER TAKING THE BOWEL PREPARATION

You must have a relative or friend stay with you whilst taking your bowel preparation, as there is a risk of fainting or falling. Please inspect the toilet bowl to determine if your bowel motion has a clear yellow appearance. It should be free of any particle matter, although a small quantity of white fleck is acceptable. If you are unsure of the results please call the Gastroenterologist's rooms for assistance. Occasionally, yellowish bile stained fluid will be noticeable the next morning on the day of your procedure.

WHAT TO EXPECT:
This preparation produces watery diarrhoea over a short period. Therefore it is normal to feel lethargic and you will often feel chilled, particularly in winter after drinking the fluid. Drink hot fluids and wear warm clothing.

You will also experience some tenderness over the anal region from the frequent diarrhoea. Application of Lanolin cream or Vaseline to the anal region before drinking the prep will help to minimise discomfort. Patients with haemorrhoids may experience discomfort at the anus therefore should use haemorrhoidal cream. Following the preparation, a warm salt bath may assist in soothing the anal discomfort. You will often feel a sense of bloating. Walking and the application of hot packs will usually ease this feeling.

Usually the preparation is well tolerated; however you may find some problems.

VOMITING:
This may occur for a number of reasons but often because the fluid is not passing from the stomach as quickly as expected. If you are vomiting, stop drinking the fluid for 30 minutes and have a hot beverage. Then restart drinking. It is important you try to continue as the procedure can only be performed if your bowel is totally clean. A clean bowel can only be achieved by drinking the preparation. If the vomiting persists, stop the prep and notify the doctor on call or a major Accident and Emergency Centre.

BLOATING/PAIN:
A degree of bloating is usual, however if you have experienced pain from the distension stop the preparation. If the bloating settles then start the prep again. If pain and bloating persists or is severe, do not drink any more of the solution and contact the doctor on call as you may require an injection or even an x-ray, particularly if you have not had a bowel motion.

FAILURE TO HAVE A BOWEL MOTION:
Patients differ in timing between drinking the prep and when diarrhoea commences. If you have followed the directions and consumed half the preparation with no results, stop the prep for 30 minutes and have a hot beverage. Some people take a lot longer to pass the prep than others. However if you are not experiencing any pain, and bloating is minimal, then continue. Once the diarrhoea has commenced continue drinking the preparation.

DIZZINESS:
This can occur after taking the bowel preparation. Be sure to be in a comfortable position when taking the bowel preparation and close to toilet amenities. Rarely fainting/falling may occur.

SEVERE PAIN AND VOMITING:
This is very unusual. If you have stopped the prep and the symptoms continue or you fail to improve it is wise to contact the doctor on call or a major Accident and Emergency Centre for advice as you may have an underlying condition that is causing the problem.

AFTER HOURS DOCTOR ON CALL TELEPHONE NUMBER: 3820 4555

WHAT HAPPENS AFTER THE COLONOSCOPY?

You will normally stay in the primary recovery area for 25-30 minutes after you have recovered consciousness. You will be asked to go to the second stage recovery for 20-30 minutes where you will be seated and have light refreshments prior to being discharged. You are required to remain in the Clinical area until you are discharged. A normal diet may be resumed immediately upon returning home, unless instructed otherwise on your discharge instructions.

The gastroenterologist will speak with you briefly regarding your procedure results before discharge. This is not a full consultation. Follow-up consultation will be with your referring doctor. If deemed necessary by the gastroenterologist, a future consultation will be arranged by the reception staff prior to your discharge.

Following the procedure you can experience:

1. **Bloating and cramping**. This normally settles within a few hours but if not, then a medication such as Colofac or peppermint tea can help.

2. **Diarrhoea** can occasionally persist for a few days following the procedure. This normally settles within 24 hours and is unusual to be longer than this. Occasionally, however, you can get constipation for a few days following the procedure.

3. **Haemorrhoidal bleeding** can occur following the procedure and bowel preparation.

4. **NOTIFY THE DOCTOR IF YOU HAVE SEVERE ABDOMINAL PAIN/VOMITING, BLEEDING FROM THE BACK PASSAGE, BLACK BOWEL MOTIONS, DIZZINESS, SHORTNESS OF BREATH, FEELING FAINT, HIGH FEVER/CHILLS, REDDENED AND SWOLLEN INJECTION SITE.**

   If you have severe symptoms, you would need to contact your GP, the Gastroenterologist or present to a major Accident and Emergency Department of a hospital to be assessed.

AFTER THE ANAESTHETIC

The anaesthetic you are given before the procedure is very effective in reducing any discomfort. However, it may also affect your memory for some time afterwards. Even when the sedative appears to have worn off, you may find you are unable to recall details of your discussion with the doctor. Occasionally, you may have diminished memory for 1 day following the procedure. You may notice after your procedure the blue dye that was used will show up in your bowel motions, this will settle within 24 hours.

You are advised to rest when you go home, however, avoid sitting or lying in the one position for long periods.

Due to the anaesthetic you have had, you are legally under the influence of a mind-altering drug. You must not drive a vehicle, operate heavy machinery or sign legal documents or place yourself in any hazardous situations for at least 12 hours after the procedure.

You will be unable to take public transport or use a taxi to go home unless you have a responsible adult with you.

It is important that a responsible adult accompanies you home and is able to look after you for 12 hours after your procedure. The reasons for this are two fold: 1. the increased risk of bleeding, fainting and falling; and 2. the temporary loss of memory and judgement following the anaesthetic.

IF YOU DO NOT HAVE A RESPONSIBLE ADULT TO ACCOMPANY YOU HOME AND STAY WITH YOU FOR 12 HOURS AFTER YOUR PROCEDURE, YOUR APPOINTMENT MAY BE CANCELLED.

PREVENTION OF COLORECTAL CANCER

Colorectal cancer affects approximately 1 in 20 Australians. You can reduce, significantly, the risks of bowel cancer by:

1. Diet. Reduce dietary fat. Increase fruit and vegetables, in particular, cruciferous vegetables (bok choy, broccoli, brussel sprouts, cabbage, cauliflower). You should reduce the amounts of beer consumption, although moderate wine consumption may reduce your risks of bowel cancer. If you wish to take a supplement, then consider calcium, folic acid and possibly selenium vitamins, which may reduce the risk of bowel cancer by 30-40%.

2. Increased physical activity and reduced smoking.

3. Regular faecal occult blood testing.

4. Regular screening colonoscopy with removal of polyps will reduce your risks of bowel cancer by 80-90%. The frequency of this depends on your family history and whether you have had polyps in the past.

You should have a colonoscopy performed if you develop symptoms of bleeding from the bowel, anaemia, change in bowel habit, especially a recent one; or recent onset of abdominal pain.

EEC CHARTER OF PATIENT RIGHTS AND RESPONSIBILITIES

PATIENT RIGHTS

Access: A right to health care.

Safety: A right to safe and high quality care.

Respect: A right to be shown respect, dignity and consideration.

Communication: To be informed about services, options and costs in a clear and open way.

Participation: A right to be included in decisions and choices about care.

Privacy: A right to privacy and confidentiality of provided information.

Comment: A right to comment on care and having concerns addressed.

PATIENT RESPONSIBILITIES

Respect: A responsibility to respect the dignity of other patients, visitors and surgery staff, and their right to a safe environment; and to respect hospital property, policies and regulations;

Co-operate: A responsibility to co-operate with staff in the provision and planning of care, and provide them with honest, relevant details associated with your health status on the pre-admission questionnaire.

A responsibility to arrange a responsible adult to drive you home and remain with you for 12 hours after the sedation.

A responsibility to contact the hospital should you wish to cancel or postpone your admission, or are unable to arrive at your scheduled time.

Accept: To accept the consequences of your own decision on health matters.

To accept responsibility to finalise all accounts pertaining to your hospitalisation.

COLONOSCOPY CONSENT FORM

If you have any questions or reservations about this procedure, you may need to:

1. Discuss any preparation questions with the Clinic Sister.
2. If you have any concerns about which tablets are safe to cease, or concerns about why you are having the procedure, you may need to return to your referring doctor for advice.
3. If you have any reservations about this procedure and need to discuss this further, then you may need to see your referring doctor to organise a consultation with one of our Gastroenterologists prior to the procedure.

On the day of your procedure <u>you will be asked to sign the consent form after you have talked to the Gastroenterologist.</u>
Prior to this, you must have read this booklet and completed the following item check list:

	Yes	No
1. Are you satisfied with the reason you are having a colonoscopy?	☐	☐
2. Do you understand what will happen during the colonoscopy?	☐	☐
3. Do you understand the alternatives to a colonoscopy?	☐	☐
4. Do you understand the risks of a colonoscopy?	☐	☐
5. Do you understand the possible reaction to the anaesthetic?	☐	☐
6. Have you arranged a responsible adult to drive you home and stay with you for 12 hours after the procedure?	☐	☐

If you have answered <u>NO to any of these questions</u>, you will require further information from your referring Doctor or a consultation with one of our Gastroenterologists prior to your procedure and you may need to reschedule your appointment.

I ……, …… have read and acknowledged this consent and colonoscopy information booklet.
(First Name) ***(Surname)***

I have read and acknowledge that I have been given information and understand:
1. the reason for my colonoscopy;
2. what is involved with the preparation for colonoscopy;
3. what is involved during colonoscopy;
4. the type of therapies performed, including polypectomy and other procedures that may be required;
5. what to expect following a colonoscopy;
6. the risks of colonoscopy;
7. the alternatives to colonoscopy;
8. the possible reactions to the anaesthetic;
9. the need for a responsible adult to drive me home and stay with me for 12 hours after my procedure.

Because of the risk of cancer it is recommended that all polyps found at the time of colonoscopy be removed. However, it will not be possible to discuss the removal with you at the time of the examination, as you will be sedated. Therefore, if you agree to have any polyps removed which have been found during the procedure, please sign the consent form. If you have any queries or reservations about this please inform the Gastroenterologist. In the unlikely event of haemorrhage occurring, a blood transfusion may be necessary. Please be sure to inform us if you have any severe pain, black tar stools or persistent bleeding in the days or hours after the colonoscopy.

I ACKNOWLEDGE THE NATURE OF THIS PROCEDURE HAS BEEN FULLY EXPLAINED AND I REQUEST THAT THE COLONOSCOPY AND POSSIBLE POLYPECTOMY BE CARRIED OUT AND SEDATION BE ADMINISTERED. I ALSO AGREE TO ANY FURTHER THERAPIES THAT NEED TO BE PERFORMED DURING THE COLONOSCOPY, AS OUTLINED IN THIS COLONOSCOPY BOOKLET. I UNDERSTAND THE COSTS INVOLVED IN HAVING THE PROCEDURE PERFORMED AND AGREE TO BE RESPONSIBLE FOR THE COSTS.

I agree to recover in the surgery following my procedure until I am fit for discharge. I understand a responsible adult must accompany me home and remain with me for 12 hours after the procedure. I understand that I cannot use public transport or a taxi to get home without an adult companion. I understand I cannot drive a vehicle, operate machinery or place myself in any situation where sedation could be hazardous for the next 12 hours.

…… Date:……
Patient's Signature

…… DR:……
Gastroenterologist's Signature **Gastroenterologist's Name**

ADDENDUM TO THE COLONOSCOPY CONSENT FORM

NO LARGE POLYPS TO BE REMOVED

THIS SECTION IS TO BE SIGNED BY PATIENTS HAVING A DIAGNOSTIC COLONOSCOPY- NO LARGE POLYPS WILL BE REMOVED.

I ,……, ……, understand that due to my current
(First Name) ***(Surname)***

anti-platelet/anticoagulation medication, the Gastroenterologist will be unable to remove large polyps during this procedure.

…… Date:……
Patient's Signature