GENDER REASSIGNMENT.
Introduction

Our programme has resulted in careful selection of suitable candidates for sexual reassignment surgery.

From male to female. For male to female transsexual surgery we advocate a period of living as a woman for two years whilst taking feminising hormones. With the successful transition into the female role, construction of the female external genitalia and a vagina is planned.

We have a most satisfactory operation whereby the erectile tissue of the penis is removed, the urethra (the channel down which the urine is conducted) is dissected out, the skin of the penis with its own erogenous sensation and blood supply is turned inside out and goes to make the labia minora and the introitus (entrance) of the vagina. The urethra is brought through the dorsal penile skin into the position of the female urethral opening. The reduced scrotal skin goes to make the labia majora folds.

We use portions of the glans penis with its own blood supply and nerves to reconstruct a sensate clitoris, which can still have erogenous sensation and function.

A vagina is constructed via a laparoscopic operation. Portion of the large bowel, the ascending colon, is mobilised on its own blood supply down into the position where the normal female vagina is situated between the bladder and rectum. The operation for construction of the new vagina is described later.

The advantages of using the large bowel are:
The bowel is naturally distensible, does not contract and has its own blood supply so remains healthy. The bowel is self-cleansing with a small amount of mucus so it is also lubricated. This vagina has considerable advantages over the previous operations where they used the inverted penile skin and/or a skin graft to make the new vagina. In the case of the skin graft vagina, the vagina used to continually shrink down and require daily stretching and dilatation. The skin graft vagina did not clean itself nor was there any natural lubrication. Often the skin grafted vagina or inverted penis was too short and was generally associated with minor problems.

The cases that we have performed so far have been most satisfactory. As the operative oedema has resolved, the function and the appearance of the external genitalia and the neo-vagina have proved to be a good facsimile.

Like other methods of neo-vagina construction, our patients do need to regularly dilate the junction between the dorsal penile skin and the ascending colon, which is inside the vagina, until the scar tissues are mature and soft.

GENDER REASSIGNMENT PROTOCOL

This complex transition from one sex to the other has been undertaken for the past 18 years in a coordinated programme involving the patient's General Practitioner, Geneticists, Psychologists, Psychiatrists, Endocrinologists, Urologists, a Colorectal Surgeon, Plastic and Reconstructive Surgeon, Anaesthetist, Operating Theatre Staff and Nursing Staff at the Southern Cross Hospital, and in the private consulting rooms of the specialists.

This programme has resulted in careful selection of suitable candidates for sexual reassignment surgery. The General Practitioner in consultation with the patient will determine that the patient has from early childhood felt that they are in a body not syngenic with their psychological sex. The General Practitioner will try to elicit whether there is some genetic abnormality, hormonal abnormality, anatomical abnormality, psychological abnormality or whether there has been some aberration in the sex of upbringing, and whether other people perceive them to be the sex that the patient has chosen. With the help of a Psychologist, who will make an in-depth analysis of the patient's motivation for gender reassignment, we will be able to talk about realistic expectations and determine the patient's ability to cope with the outcome of gender reassignment from a psychosocial point of view.

An Endocrinologist may be consulted to determine whether there is any congenital cause or hormonal cause for the patient's gender Dysphoria. The patient is to be seen by a Psychiatrist who will establish the diagnosis of "transsexualism" as defined by the American Psychiatric Association D.S.M.IV and to determine whether the patient suffers from psychiatric illnesses, psychopathology, sociopathology, low IQ or severe personality disorder, as these would be contra indications for undergoing gender reassignment surgery. After baseline studies, and with the help from the Endocrinologist, the General Practitioner could commence feminising hormones and anti androgen medication.

Before male to female transsexual surgery we advocate a period of successfully living and working as a woman for two years whilst taking the feminising hormones. During this time two Psychiatrists, and a Psychologist and Social Worker would be available to support the patient psychologically in preparation for gender reassignment surgery. After completion of the preoperative medical work up by the family physician, which would include full blood count, electrolytes, liver function tests, renal function tests, cardiology and respiratory function tests and determination of the presence of HIV, Hepatitis A, Hepatitis B, Hepatitis C (with the requisite counselling prior to the latter tests being taken).

The patients would be referred to the Surgeons. Each Surgeon would ensure that the patient has preoperative education regarding the operation, and to discuss possible complications.

The Colorectal Surgeon would discuss with the patient the aim of the operation, viz, the construction of an ascending colon neovagina preoperatively. A full discussion of the operative risks and indications of the operation would be undertaken. The Colorectal Surgeon would be responsible for the laparoscopic construction of the neovagina from the ascending colon on its own neurovascular pedicle, and restoration

of bowel continuity. He would also be responsible for ongoing post operative management of the abdomen and bowel. Only two one centimetre wounds are made on the left lower abdomen and a three centimetre wound under the umbilicus is made. In previously operated persons, or persons with inflammatory involvement of the bowel, open laparotomy may be needed. The Colorectal Surgeon clearly outlines the operation and possible complications.

The Urologist, likewise, would be responsible for preoperative education of the patient, a description of the procedure from his point of view discussing orchidectomy, amputation of the erectile rods, dissection of the penis, construction of a sensate clitoris, dissection behind the bladder and in front of the bowel to make a cavity for the neovagina, and re-routing the urethra to the anatomical position of the female. He will make a full discussion of the operative risks and the complications of the operation and be responsible for the postoperative management of urinary flow and bladder problems.

The Plastic and Reconstructive Surgeon similarly, would be responsible for preoperative education of the patient regarding his part of the operation. He will discuss the dissection of the penis with the aim of raising the sensate and viable portion of skin from the glans penis to reconstruct a clitoris, which has erogenous sensation. He, with the Urologist, will be responsible for the raising of the skin of the penis so that it has sensation and a blood supply for reconstruction of the external female genitalia including the placement of the clitoris, construction of the labia minora folds, and assisting in the dissection of the urethra and restoration to its anatomical position in the female. The dorsal penile skin is inverted distally for anastomosis to the ascending colon neovagina so the anastomosis is internal. He will also be responsible for decreasing the size of the scrotal skin and using the remaining sensate and erogenous skin for the construction of the labia majora folds. A vaginal pack is placed.

The Colorectal Surgeon will order pre-operation preparation of the bowel on the patient's admission to hospital. The ward staff supervise the preoperative preparation. Preoperative photos for the patients record are taken. The operating theatre staff at the Southern Cross Hospital and the ward staff have considerable experience with gender reassignment patients during and after the approximately six hour long operation. The patient will be returned to the recovery ward with intravenous lines, catheter, drains and with prescriptions for postoperative management of fluid and drugs. The vaginal packing is removed on the third day post- op and dilatation with dilators is commenced. We encourage the patient to dilate to the optimal size by three months post-operation. At the time of the preoperative consultation the patient will be informed as to the duration of stay in Christchurch. The surgeons would prefer that the patient seek out and be under the care of a General Practitioner in Christchurch. If they do not know of a General Practitioner we can supply them with a list of General Practitioners who would be amenable to helping the patient during their stay. We would ask the patients to prepare for a stay of approximately one month after the operation. We would ask that the patient be discharged to accommodation in the care of a relative, attendant, friend or nurse. We could arrange postoperative visits by the Surgeon's clinic nurse, hospital nurses and Domiciliary Nursing Service supplied by the Nurse Maude Association.

Postoperatively we would have the patient visit the surgeons in their consulting rooms, for removal of catheter seven to ten days post-op and to supervise dilatation. We would arrange and urge the patient to consult with Psychologists, postoperatively so they can give the patient psychological support. We will arrange for followup collection and circulation of long term results.

The protocol that we have in Christchurch differs from protocols elsewhere in the world to our knowledge. We use portion of the ascending colon for the neovagina. This neovagina has considerable advantages over the previous operations where they use penile skin and skin graft to make the new vagina.

In the case of the skin graft vagina, or inverted penile techniques, the vagina used to continually shrink down and require daily stretching by dilatation. The skin graft vagina did not clean itself nor was there natural lubrication. The desquamating keratin would often have a bad odour. Often the inverted penile skin vagina or skin grafted vagina was too short and was generally associated with minor problems.

The ascending colon neovagina is ideal as the primary operation but can be used as a 'salvage operation' for failed inverted penile technique operations or for those patients with a small phallus who may have insufficient material for adequate depth of vagina. The operation for construction of the new vagina using ascending colon was first described in England in 1990 by Turner-Warwick. He used caeco-colon construction of a vagina in 13 young girls with vaginal agenesis (where the vagina did not form). Mr E. G. Perry (General Surgeon) adapted the use of the caeco-colon for male to female transsexual surgery and we have successfully used an adaptation of this operation in 58 patients to date (May 2007). The advantage of using the large bowel is that the bowel is naturally distensible, does not contract, has its own blood supply so remains healthy, and wards off infection. The bowel is self-cleansing with a small amount of mucus so it is also self-lubricated and the lining is designed to be moist. The cases that we have performed so far have been most satisfactory. One case has required dilatation of the urethra. Three cases have narrowing of the introitus of the vagina, which required surgical correction and dilatation, one patient has had loss of the clitoris due to technical problems during the operation causing ischaemic necrosis. One patient needed a temporary defunctioning colostomy for recto vaginal fistula then reversal three months later. . As the postoperative oedema has resolved, the function and the appearance of the external genitalia and the neovagina have proved to be anatomically correct and most satisfactory.

All fees are approximate as one can only estimate the other Surgeon's and Physician's Professional fees. Theatre fees and Anaesthetists fees, vary as they are calculated according to the time in the operating theatre. The Surgery is carried out at the Southern Cross Hospital, 131 Bealey Avenue, Christchurch, New Zealand usually on a Friday afternoon, once a month. Following the approximately six hour operation, the patient is returned to the recovery room where they may stay for approximately three hours before returning to the ward.

Routine postoperative cares are undertaken in the ward. The patient may be nil by mouth for approximately 24-48 hours. The bowel begins to work again approximately three to four days after the operation and drains are removed at about

that time. The catheter would stay in for approximately one week. The patient can be discharged on day five to day seven post-operation.

Breast augmentation would have to be done on a separate occasion. For breast augmentation costs, please enquire at the office of Mr E P Walker.

INFORMATION SHEET FOR PATIENTS SEEKING MALE TO FEMALE GENDER REASSIGNMENT.

(1) The possible gender Dysphoria patient presents to the General Practitioner. The General Practitioner decides whether the patient has a gender Dysphoria. The General Practitioner may refer the patient for genetic testing and Endocrine Assessment. The patient will be advised regarding hormone treatment.
The General Practitioner will make a full medical assessment and will have blood tests done including full blood count, electrolytes, liver function tests, renal function tests, cardiology and respiratory function tests. Chest x-ray and determination of the presence of HIV, Hepatitis A, Hepatitis B, Hepatitis C (counselling can be arranged).

(2) The General Practitioner sends the patient for two psychiatric reports to establish if the patient is a transsexual. Psychiatrists determine for:

- psychiatric illness
- severe personality disorder
- sociopathology
- intelligence
- psychopathology

In Christchurch, **Dr Moore** and **Dr A Young** are both the Gender Dysphoria Psychiatrists. If the patient lives outside Christchurch, only one report is required as the programme psychiatrists will do the second one. The Psychiatrists report helps with the diagnosis of Transexualism. Once the correct diagnosis has been made the following can be commenced:

- feminising hormones
- anti androgen therapy

We ask that our patients live as a woman in the community for two years, preferably in gainful employment.

The preoperative assessment phase
The General Practitioner refers the patient (together with the psychiatric reports and results of recent blood tests), to the Gender Dysphoria Programme through the centralised office of Mr E P Walker. Thereafter appointments are made by our Clinical Nurse Coordinator with:

(A) Programme Psychiatrists: Dr Moore or Dr A Young.
(B) Psychologist/socialworker: Rosemary Smart.

Rosemary will discuss gender issues, motivation, ability of patient to cope.

- self esteem
- stability
- alcohol/drug dependency
- risk of depression
- personality structures

- support of peers and family

Psychological support during transition and in preparation for gender reassignment operation.

The fees for the Psychiatrist and Psychologist are to be paid on the day. The patient must pay for the preoperative assessments. On receipt of the psychiatrists and psychologists reports, an appointment one to two days later will be made with:

The Surgeons, to discuss the surgery:

- Mr E P Walker
- Mr Richard Perry
- Mr Stephen Mark

The Anaesthetist if necessary.

The patient must pay all consultations fees on being seen by the Gender Dysphoria team.

A Case Conference or Conference Call will follow for a yes or no decision regarding the patient's suitability for surgery. Patients coming from overseas may have to make two trips, one for the consultations and one for the surgery, although one visit for consultation and surgery can be made on request.

Operative phase

All accounts must be paid prior to the operation taking place, e.g. Hospital, Theatre, Anaesthetist, three Surgeons Disposables. An allowance should also be made for x-rays and physiotherapy and any unforeseen costs.

Surgery takes place at the Southern Cross Hospital 131 Bealey Avenue, Christchurch, New Zealand. Telephone 0064 3 9683100, Fax 0064 3 9683101.

The patient is looked after by the Southern Cross Hospital ward staff and regular postoperative visits are made by the surgical team.

Thereafter, the patient can be discharged to the care of a relative or friend. Weekly postoperative appointments are made to ensure that all goes well. Expect to stay four weeks postoperatively.

Frequently Asked Questions…..

Is my privacy going to be respected?
Yes, all matters concerning this operation are dealt with in the strictest confidence.

How long will I be in hospital?
Five to seven days.

I live outside New Zealand. How many visits will I need?
You may need to visit twice.

1. The first visit is for an initial consultation with the psychiatrist, psychologist and social worker. (You should allow a week for the first visit.)

Then two to three days later if these specialists concur you will have a consultation with the three surgeons, the General Surgeon, the Urological Surgeon and the Plastic Surgeon.

Medical, social and intellectual factors, plus your support network, all affect the suitability and successful outcome of the operation for you.

After a further conference between all the medial specialists, you will be notified as to whether you are an acceptable candidate.

Full details are set out in the Gender Dysphoria Programme.

2. The second visit will embrace the hospital stay of five to seven days plus approximately three weeks for recuperation, and post operative observation.

In extenuating circumstances, the work up and hospital stay for operation in one visit can be arranged.