

***Reconstructive Jaw Surgery
Pre- and Post-Operative Instructions***

JAW SURGERY

PRE-OPERATIVE AND POST-OPERATIVE INSTRUCTIONS

This pamphlet is intended to help you prepare for your jaw surgery. It will describe the typical hospital course and the period following discharge from the hospital. It is anticipated that you would have questions after reading the pamphlet, and you are encouraged to ask about any areas of concern.

Day of Admission (Beginning of Hospitalisation):

When surgery is planned for the morning, it is recommended that you be admitted to the hospital the day before the operation (\pm 18h00). This will ensure that you have a restful night's sleep and be relaxed prior to the surgery the next morning. You may however, prefer to be admitted at 6h15 on the morning of surgery. Don't have anything to eat or drink that morning.

Operations that are planned for an afternoon will necessitate patients to be admitted to the clinic at \pm 11h30 to ensure that the Anaesthetist has more than sufficient time to prepare you for the anaesthetic. You may have a light breakfast before 07h00, following which no food or drink must be consumed.

What to bring with you:

As the hospital stay is generally speaking rather short, a pair of pyjamas, a gown, slippers and toiletries are the only things that you need to bring with you. It is also advisable to bring along a magazine or a book to keep you occupied when you are not resting.

Pre-operative evaluation:

On the day of admission, or in advance where special circumstances warrant it, a history and physical examination will be performed by the Anaesthetist. The intention of this examination is to screen patients for any potential complicating systemic diseases. Should any further information be required as a result of this examination, appropriate consultations will be arranged. Laboratory investigations such as blood tests, urine analysis and chest X-rays may be requested.

Anaesthesia:

The anaesthetist will discuss the form of anaesthesia, as well as potential complications with you. For your own safety and for the prevention of serious post-operative complications, it is essential that your stomach is empty prior to undergoing an anaesthetic. In order to achieve this, it is vitally important that you do not eat or drink anything for at least 6 hours prior to the time of surgery.

If you have any reservations about general anaesthesia, or have had previous untoward reactions to general anaesthetic, or have any special request regarding your anaesthetic, please be sure to discuss them with the anaesthetist beforehand

Day of Surgery:

You will receive a pre-operative medication, in tablet form, which in addition to being an important preparation for the anaesthesia will reduce normal pre-surgical anxiety. You will be given a special theatre garment, which you wear when you are in the operating theatre. You will then be taken in your bed to the theatre complex.

A soft plastic tube will be inserted into the back of your hand or your arm (IV line): this is to provide a means of delivering both intravenous fluids and medications, eliminating the need for repeated injections. After this you will fall asleep. Once asleep, a breathing tube will be passed through your nose into your trachea (endotracheal tube).

After the completion of the surgical procedure, the endotracheal tube is removed as soon as possible. This is sometimes the cause of a sore throat following surgery. The IV line usually remains in place for 24 hours until such time as you have received all your intravenous medications, or until you are able to drink a sufficient amount of liquid supplying your daily fluid requirements.

Post-Surgical Period:

Following completion of the surgical procedure, you will be transferred to the recovery room. There, your progress will be monitored closely by the nurses on duty. You will remain in the recovery room for about one hour until you are sufficiently awake to be transferred back to your room. During this period in the recovery room, it will not be possible for the members of your family to see you; they will however be free to see you for a short period after you have been returned to your room.

Occasionally, it may be necessary to send you to the High-Care Ward where you will receive more intensive nursing during the first few hours after your surgery. Please note that this does not mean that there has been a complication during the surgery, but rather that the nature of the procedure has warranted slightly more attentive nursing than routine cases.

Minor Bleeding following Surgery:

It is common to experience some degree of minor bleeding following surgery, and minor nosebleeds may be expected for a period of 1-2 weeks following upper jaw surgery. This may be more pronounced when leaning forward and is due to an accumulation of blood in the sinus cavities. However, if bleeding continues for longer than 20 minutes contact us immediately.

Post-Operative Pain:

Pain may be anticipated; in most instances, however, it is mild and treated easily with pain medication (analgesics). When bone grafts are taken from the hip (or chest), more discomfort should be anticipated. The necessary analgesic medication will be provided.

Nausea and Vomiting:

You may experience some nausea and vomiting. This is sometimes a result of the anaesthetic or an irritation of old blood in your stomach. Therefore, if vomiting does occur, remain calm and turn your head to the side so that any fluid produced clears your mouth freely. The nurses who care for you are used to dealing with patients who have had this type of operation and are eminently trained to cope with this side effect.

With the use of rigid bone fixation (bone plates and screws), it is seldom necessary to wire the jaws together. In some selected cases however, it is advantageous. The necessity for this will be discussed with you prior to the operation.

If your jaws are wired together, it is important to realise that vomiting is not a life-threatening situation since your stomach is empty. The contents of the stomach which need to be expelled are fluid and will very easily pass between the teeth. Wirecutters are also attached to the head of the bed so that they can be available in extreme emergency. It is very unusual to have to cut the wires that are holding your jaws in position.

Swelling:

You can anticipate that swelling will occur and the degree of swelling is quite variable amongst individuals. More swelling usually occurs with lower jaw surgery than with upper jaw surgery. Swelling will continue to increase for approximately 48-72 hours following surgery. The swelling of the lips can be minimised by utilising a medicated cream, which will be available at the bedside.

Swelling typically remains unchanged until approximately one week following surgery, after which it tends to resolve dramatically. Every attempt will be made to minimize the swelling during the period of hospitalisation by placing ice packs on your face immediately following the surgery. A special type of medication will also be given to you prior to surgery, and which will be continued the following day in an attempt to further minimise the swelling. Plasters are also applied to your face to help adapt the soft tissues of the face back against the bone and also to hold the swelling in check.

Physiotherapy:

Our physiotherapist will see you in hospital the day after surgery.

We recommend post-operative physiotherapy treatment in order to:

- decrease the degree of swelling and bruising
- help reduce pain
- accelerate bone healing
- minimise scar tissue formation
- restore normal jaw function.

The physiotherapist will treat you in hospital and make arrangements for continued treatment after discharge. Treatment occurs in two phases:

1. to assist in optimal return to normal appearance and limited function (approximately 10 days)
2. to restore normal muscle function (starting 4 weeks after surgery)

You will be encouraged to keep your head elevated for the first week following surgery, since upright posture and walking around soon after the operation minimises the swelling, which may occur.

Numbness:

A numbness of the lower lips and chin can be expected after lower jaw surgery and of the upper lips, cheeks, palate and gums following upper jaw surgery. This is due to interference with the nerves supplying sensation to these areas and is usually temporary. Feeling can be expected to return to these areas within a few weeks following surgery, but in occasional instances, may take longer. Unfortunately, in a very small percentage of cases, this can be permanent.

Speech:

The ease with which you can communicate and be understood is not predictable; speech will only improve, however, by repeated attempts on your part to talk and be understood. It is important that you slow your rate of speech, concentrate on each word, and be willing to try repeatedly.

Nasal Stuffiness:

The cause of nasal stuffiness following surgery may be either from the tubes placed during the surgery or from the surgical procedures in the upper jaw. When this occurs, it can be managed with a combination of nasal sprays and cleansing of the nostrils. It is suggested that you remove nasal secretions using ear buds soaked in a solution of hydrogen peroxide and water (one to three parts).

Blowing of nose

When upper jaw surgery has been performed do not blow your nose or sneeze through a closed mouth for at least 10 days after the operation. This can cause air to be forced into your cheeks and eyelids. A nasal spray is usually provided to help decongest the nasal passages. This should be sprayed with sufficient force for you to taste the medication. When utilised correctly, this will provide relief in approximately 3-5 minutes. The nasal stuffiness will resolve within approximately 1-2 weeks following surgery.

Medications:

During the period of hospitalisation, you will usually be given antibiotics, pain medications, mouthwash, medicated cream for your lips and for upper jaw surgery - a nasal spray. Most of these medications will be continued on discharge from the hospital. It is very important for you to utilise the medications as prescribed and to finish those medications, which you are instructed to finish. Please do not stop taking your medication without first consulting with your doctor.

Walking:

You are encouraged to walk as soon as possible, even if bone has been taken from the hip for use during your surgery.

Visitors:

It is encouraged that visitation be limited to immediate members of the family. It has been our experience that while this is not a difficult period of time for patients emotionally, it may be for members of the family. Therefore, it is advisable to limit the number of visitors during the immediate post-operative period. Visiting hours at Carstenhof Clinic: 3.00-4.00pm in the afternoon and 7.00-8.00pm at night.

Elastics:

Elastics are generally used to stabilise the jaws after surgery and guide the teeth into the new bite. They are usually placed immediately after the operation, and should not be removed until the first post-operative appointment. The elastics should be used as directed until your next appointment with your orthodontist.

Cleaning the Teeth:

It is advantageous to brush your teeth following each meal. A small soft toothbrush can be utilised for this purpose, paying particular attention to keeping the brush in direct contact with the teeth. In addition to brushing, a mouth rinse should be used. Do not use toothpaste when brushing your teeth for the first few days following surgery - rather soak the bristles in the mouthwash and brush, in order to obtain maximum benefit from the antiseptic

qualities of the mouthwash.

Clear Liquids:

An average adult requires approximately 2-3 litres of fluid every 24 hours as a normal fluid intake. Although this may seem like a large quantity, it can be achieved with constant sipping. It will be important that you drink a sufficient volume of fluid to allow the discontinuance of the drip on the day following surgery.

Once you have fully recovered from the after-effects of the anaesthetic, you will be encouraged to drink clear liquids. This will often be easier directly from a cup or glass due to the loss of sensation in the lips. However, a large catheter-tipped syringe or a straw will be available to assist you if you find this easier.

Splints:

In selected cases, the use of a splint is necessary. This is a plastic template made after the dental casts have been placed into the new bite. After the jaws have been mobilised, the teeth are wired into the splint to establish and to maintain the correct jaw position. The splint is constructed of a clear plastic (acrylic) and is not visible to the casual observer. This will remain in place until the wires are removed, and in most instances, will be used for a period of time following the release of fixation.

Wiring of the jaws:

With the use of rigid fixation (bone plates and screws) it is seldom necessary to wire the jaws together. However, in some selected cases this may be advantageous. The necessity for this will be discussed with you prior to the operation.

Day of Discharge:

Most patients are ready for discharge within two days after surgery. A period of rest up to one week is recommended and after that you are encouraged to resume your normal activities as soon as possible.

Diet:

It is vitally important that chewing forces applied to operated jaws are kept to a minimum. Thus, you should under no circumstances chew any solid foods. It is suggested that prior to admission to the hospital you acquire a blender and a food strainer. The usual post-operative programme is a week of liquids followed by three weeks of soft or puréed foods. Thereafter, you will be informed as to when you can start eating solid foods.

Food and nutrition plays a vital role in our daily lives, especially where healing needs to

take place. A soft, fluid or puréed diet can still be balanced providing all the necessary nutrients. It is essential that all the components required for your rehabilitation should be available to your body. The following dietary guidelines regarding foods that may be included in your diet are provided hereunder. You may select foods that you can manage.

In order to ensure that you have a balanced diet, try and include something from each group at each meal. A variety of foods prevent the diet from becoming monotonous and boring. Butter and oil may be added in small quantities during the preparation of the meal, which will increase the energy levels of the diet.

FLUID DIET

A variety of nutritional supplements e.g. Complan, Ensure, Sustagen, Vitagen, and Nutragen to name but a few, are commercially available at pharmacies and supermarkets. These have all the necessary nutrients, and replace the whole meal or part of a meal. Follow the instruction on the package and mix with milk or water as directed.

Puréed DIETS

Puréed foods are an interim stage between going from a fluid to a soft diet. All the groups applicable to Liquids apply also the Puréed group.

SOFT DIET

All foods present in the Fluid and Puréed diets can be utilised with a soft food diet as well

Constipation:

Constipation may occasionally occur as a result of a soft food diet. Stewed prunes can be used as a natural laxative. Commercial preparations e.g. Fybogel can also be prescribed as an aid to prevent and cure constipation and provide roughage. Any other natural laxatives e.g. milk of magnesia can also be used.

Weight Loss:

Weight loss maybe a problem during the period of consuming a soft diet. A weight loss of approximately 3kg may be anticipated during the post-operative period. This is a reflection in most instances of a loss of appetite, rather than the soft diet. By one week following surgery, your appetite should be sufficiently improved to maintain and possibly increase your weight.

It is very important to realise that the bulk consumed with a liquid diet is not sufficient to satisfy an appetite. Hunger or appetite is relieved by distension of the stomach, chewing and the volume of food consumed, and a liquid or soft diet may not satisfy these demands. Thus, more frequent food intake is required and it is strongly recommended that your liquid diet is taken as a breakfast, morning tea, lunch, afternoon tea, supper and before you retire. This will keep hunger pangs at bay!

General:

It is our pleasure to do your reconstructive jaw surgery and to provide you with the best possible treatment and service. If you have any questions, queries or problems, please do not hesitate to ask your surgeon.

* * * * *

FLUID DIET	PURE&D DIET	SOFT DIET
<u>DAIRY PRODUCTS</u> Milk, Full cream / skimmed Milk drinks "Yogisip" Maas Buttermilk Egg drink	Yoghurt – plain or flavoured Smooth cottage cheese Scrambled eggs	Grated cheese Eggs, soft boiled or fried
<u>MEAT PRODUCTS</u> (Food supplement)	(Supplement)	Mince meat Pate Fish – flaked Chicken - fine
<u>CEREALS</u> Liquidised porridge	Soft porridge Pur&ed Patatoes	Bread Breakfast cereal Pasta Rice Mashed Potatoes
<u>VEGETABLES</u> Vegetable soup -liquidised	Vegetable soup Pur&ed vegetables	Vegetables - boiled
<u>FRUITS</u> Fruit juices	Soft fruit - pureed: Pawpaw,bananas Canned fruit Boiled apples/pears	Soft fruit e.g.: Pawpaw, banana, Peaches, prunes, canned fruits and soft pears.
<u>FATS</u> Cream Melted Ice-cream	Ice-cream	
<u>OTHER</u> Cooldrinks Custard Soup Sugar, honey or syrup for sweetening Liquid jelly	Jelly Instant deserts	Tapioca Baked custard

