

**To the patient who will  
receive surgery and anesthesia**



## **Kosei Chuo General Hospital Department of Anesthesia**

I'm the anesthetist (anesthesiologist) in charge of administering your anesthesia. I'll look after you during the operation. I'll observe your Blood Pressure, Heart Rate and Respiratory conditions. I'll keep you free from pain and feeling comfortable. The elderly, very young and those who have complications need not worry. The progress of administering anesthesia is improving and as a result, we use far advanced techniques.

### Types of anesthesia

There are 3 types of anesthesia; general, spinal, and epidural.

#### **\*General anesthesia**

This is the most popular procedure. During this procedure, you'll sleep (no consciousness and free from pain).

#### **\*Epidural anesthesia**

Epidural anesthesia is administered during and after the surgery to alleviate the pain. This treatment is often used in combination with general anesthesia. We puncture the epidural space (surrounding the spinal cord) and insert a fine tube, through which we continuously administer local anesthetics. This treatment is commonly used during thoracic and abdominal surgery.

#### **\*Spinal anesthesia**

Spinal anesthesia is administered before surgery to completely block all pain below the site of injection. This treatment is often used for lower abdominal surgery and leg operations.

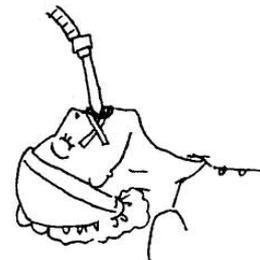
## Procedure in the operating room

The nurses in charge will wait for you at the entrance to the operating room. They will check your name. You will then be moved by the nurses and doctors onto the operating table and moved to the operating room.

In the operating room, an electrocardiogram, blood pressure monitor, and blood oxygenation monitor will be attached to your body.

### **In case of general anesthesia**

1. The anesthetist will place the oxygen mask on your face. Please relax and breathe slowly. The sleep inducing drug will be injected and you'll quickly fall asleep.
2. Following deep sleep, a tracheal tube will be inserted into your throat via the mouth for artificial ventilation(as shown in picture) . The anesthetic gases will be administered through the tracheal tube and artificial ventilation will continue until the end of the operation.
3. After the operation you will gradually wake up. As you wake up, please try your best to open your eyes and grasp our hand when we ask you to. After you're fully conscious and breathing normally, we will remove the tube from your throat, and you will feel the need to cough.
4. Following the operation, some patients will feel the need to urinate. Don't worry because a catheter will be in place.
5. For your post-operative pain, painkillers will be administered intravenously or via a suppository.

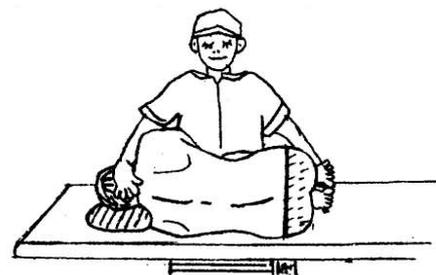


## In case of epidural anesthesia

1. Please maintain the same posture throughout the procedure (as shown in picture).
2. After you receive local anesthesia, a fine needle will be inserted into your back.
3. A fine vinyl catheter will be inserted through a needle and then attached to your back.
4. After changing the posture of your back, general anesthesia will start.
5. In the case of patients who receive epidural anesthesia for post-operative pain, you will continuously receive local anesthetic through the epidural catheter for two or three days.

## In case of spinal anesthesia

1. Please maintain the same posture throughout the procedure (as shown in picture).
2. After you receive local anesthesia, a fine needle will be inserted into your back.
3. Local anesthetics will be injected through the needle.
4. After changing the posture of your back, we will assess the effect of local anesthesia. The effect of anesthesia is measured by using alcohol-wet cotton to see if you feel the cold sensation. When anesthesia is effective, the sense of coldness will disappear.
5. During the operation, you'll stay awake. If you wish to sleep during the operation, please don't hesitate to ask us. We'll administer sleep inducing drugs.



## Possible complications of the anesthesia

There is a possibility of complications arising with any medical care given. For complications related to receiving anesthesia, see below:

About 1 in 10~500 chances of a complication arising

- Chipped teeth and cut lips from insertion of the tracheal tube
- Discomfort of the throat and hoarseness after the operation
- Temporary nausea, vomiting and headache following the recovery of anesthesia
- Headache following the procedure of spinal anesthesia

About 1 in 10,000~30,000 chances of a complication arising

- Extremely high temperature ( malignant hyperthermia ) followed by multiple organ failure
- Allergic shock caused by anesthetic drugs
- Pneumonia caused by vomiting while sleeping
- Acute heart and lung failure caused by Acute Myocardial Infarction or Pulmonary Infarction
- Brain damage or infarction caused by high or low blood pressure or arrhythmia
- Lung and tracheal damage caused by artificial ventilation
- Temporary pain or numbness in the arms or legs by keeping the same posture during the operation
- Epidural hemorrhage caused by epidural anesthesia, followed by oppression of spinal cord leading to paralysis of the arms and legs

Although there is no 100% safe anesthesia, we can generally say "You don't have to be worry." If a severe complication occurs, we'll perform emergent and proper treatment. Please don't be afraid of anesthesia. There is one last important thing that we have to say, please don't smoke before and after the anesthesia. Smoking reduces the lung ability to take in oxygen and increase the sputum. If you have any questions, please don't hesitate to ask us.

## **To the patient and family who will receive day surgery**

In case of day surgery, we need you and your family to read this sheet and the instructions.

On the day of surgery, you will be admitted to your ward by ten o'clock in the morning. Please let us know if you have some problem after admission.

### Caution ; food and drink

You can take dinner as usual before the day of surgery. You can drink water until midnight. After midnight, you must not have any food or water until the doctor in charge allows you to, following surgery.

After the admission and before surgery, you'll continuously receive saline intravenously. Don't drink if you feel thirsty. It's dangerous if your stomach contains food or water because this may cause you to vomit during surgery. Vomiting may cause pneumonia as solids enter the lung. If you eat or drink anything before surgery, please let us know. Be careful to observe that children don't eat or drink.

### Caution ; catching a cold

Please let us know if you feel you're catching a cold or if you experience coughing, high fever, diarrhea, vomiting, eczema, or any other change in your body.