**Surgical Preparations**

A basic knowledge of the materials used in the operating room such as apparel, instruments, sutures and drapes is essential if one is to master the technique of good aseptic surgical procedure.

DRAPES

Various types of draping material can be used with good results. The material most commonly used is heavy unbleached muslin. This can be dyed to improve its appearance and reduce the amount of light reflected into the surgeon's eyes. Colors frequently used are **blue, green** and **gray**. An average size drape should be about 36 inches by 60 inches. Other materials, such as plastic and rubber are used less frequently than cloth drapes. Within recent years adhesive drapes made of plastic film have been used.

GOWN

The ideal operating gown is full length with an opening in the back and has long sleeves that terminate in stockinet cuffs. Other forms of apparel such as short-sleeved gown, pullovers and two-piece uniforms are designed primarily for scrub-up or treatment room work.

INSTRUMENTS

There is an abundance of surgical instruments of all kinds. There are many varieties of some of the simplest instruments. For this reason selection of the proper instruments sometimes presents problems to the young surgeon.

PREPARING INSTRUMENTS FOR SURGERY

Good stainless steel instruments are a wise investment. They are easier to clean and keep in repair than chrome instruments because there is less corrosion most of the deterioration in instruments comes about through improper cleaning and abuse. Surgical instruments should not be used as pliers, screwdrivers or hummers, another common abuse is the use of surgical scissors to cut bandages and iris scissors to trim finger nails. Cleaning is the first step in preparing instruments for surgery. Blood left in the box or serrations becomes extremely hardened from the heat of sterilization and thereby interferes with the action and effectiveness of the instrument. Brushing to clean the instruments is not recommended because the bristles often become enmeshed in the box lock. The instrument should be washed in cold water to remove the gross soil and then immersed in a good cleaning solution. After cleaning, the instruments are thoroughly rinsed in hot running water and placed between two towels so the they can be dried by blotting

SUTURE MATERIALS

A suture has been variously described as a strand, cord, thread or band of pliable material used to mechanically appose living tissues. When the term is used as a verb, it designates the act of approximating tissue by sewing. Frequently the word "suture" is also used to signify a method of sewing "Cushing suture" but the word "stitch" is preferable "Cushing stitch" because it dedifferentiates the method from the material.

THE SURGEON

The preparation of the surgeon for surgery begins with his clothing. A change from street clothing to clean. It is equally important to keep footware spot-lessly clean, either by close inspection before surgery or by reserving a pair of shoes for surgery only. Once, the surgeon is properly attired and before beginning the scrub, a clean cap is placed on the head so that the hair is well covered. This prevents contamination from loose hair and scalp debris. The nose and mouth are then covered by a mask. The mask helps control droplet contamination caused by sneezing, coughing and talking. The effectiveness of mask can be prolonged by keeping conversation at a minimum. In case of elective surgery the surgeon should read the whole procedure details and anatomical site to refresh his/her information about the operation.

Person wearing glasses sometimes encounter the problem of fogging from exhaled air. This can be remedied by fitting the metal nose piece of the mask snugly to the nose, or by rubbing the glasses with hard milled soap and then polishing them.

SCRUBBING

Preparation of the hands and arms should be done with utmost care. Meticulous cleansing of the skin adds an extra safeguard in case the sterile protection "gloves" is penetrated unknowingly during the progress of surgery. Because there is less likelihood of contamination when foot controls at the scrub sink are used, they are preferred, the hands and arms are thereby free of contact with anything above the sink level.

The surgical scrub is started by using a sterile brush to vigorously scrub each of the four surfaces of each finger. At least 10 strokes should be given to each surface. In all, there should be at least 40 strokes on each finger and 20 strokes each on the nails, the palm of the hand and the back of the hand. The scrubbing should be done systemically. The surgeon should start with the thumb and then move on to the fingers, the nails, the palm and finally the dorsum of the hand.

Start scrubbing the arm at the wrists and gradually work up the arm to a point above the elbow. Once scrubbing of the arm is begun, do not bring the brush back to the hands. Rinsing is done with warm water. Allow it to flow from the hands to the elbow, and always keep the hands above elbow level.

Allow sufficient time for water to drip from the elbow before entering the arm-immersion solution. This avoid excessive dilution and prolongs the usefulness of the solution. The immersion basin should be filled with sufficient solution so that it reaches the elbows when the hands and arms are immersed. This solution may be either 70% ethyl alcohol or 50% isopropyl alcohol. Immersion in alcohol for 1 minute will produce the same germicidal effect as scrubbing for 10 minutes.

Great care should be taken to avoid any contamination of the hands following the scrub and during the gowning and gloving procedure. It is arbitrarily assumed that nothing below the belt is sterile, even after donning the gown. Therefore, the arms should never be held at the sides or placed in any position below the belt line.

PREPARATION OF OWNER

The owner has a right to be informed toward his animal; the risk factor of surgical operation and the success percentage.

PREPARATION OF PATIENT

1. Identification of Patient

In cases of elective surgery, the veterinarian may be asked to perform surgery at some future date. At that time it is imperative that the identity of the animal be ascertained. Not only is the identity of the whole animal of concern but the identity of the particular region is also of importance.

1. Special Pre-Operative Procedure

Water should be withheld for no longer than 12 hours, food 5-6 hours prior to surgery, this has been accomplished without any evidence adverse effect on the anesthetic administration and post operative convalescence as well as to prevent or obviate any possibility of respiratory embarrassment caused by the weight and mass of the abdominal viscera impeding the excursion of the diaphragm.

1. Immediate Pre-surgical Preparations

Mechanical cleansing of the skin with soap and warm water. The clipping, shaving and mechanical cleansing should be carried out in an area other than the operating room. The skin antiseptic is a 1% aquous solution of iodine or 2.5% tincture of iodine. Gauze swabs held either by hand or by sponge forceps are used. The first streak is made along the intended incision line to avoid carrying dirt from the periphery toward the center. Starting with application of iodine then alcoholic solution and iodine followed by double application of alcohol until return the natural pigment of skin of patient.