

Nursing Care of the Intraoperative Patient

By

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Intraoperative Care

- Intra-operative Surgery & nursing care – begins from the reception of the patient to the OR to the transfer of the client to the PACU. Or RR
 - You must keep current on technologies.
 - Maintain asepsis in the surgical environment.
 - Continue to be a strong advocate for the patient.



Surgical Suite

Unrestricted Areas	Semi-Restricted Areas	Restricted Areas
<p>Personnel in street clothes interact with those in scrubs.</p> <p>Holding area</p> <p>Locker room</p> <p>Information areas</p> <p>Nursing station</p> <p>Control desk</p>	<p>Peripheral support areas and corridors with only authorized people</p> <p>Must wear surgical attire and cover all head and facial hair</p>	<p>Operating rooms</p> <p>Scrub sink areas</p> <p>Clean core</p> <p>Surgical attire, head covers, and masks required</p>





A

Figure 21-4A A, A typical operating room. B, A typical anesthesia station with an anesthesia machine.



Surgical Team

- Circulating Nurse
 - Not scrubbed, gowned or gloved
 - Remains in unsterile field
 - Documents
- Scrub Nurse
 - Scrubbed in
 - Remains in sterile field



Circulating Nurse

Responsible for all of the activities within their assigned OR

- Set-up for the procedure
- Checks equipment
- Primary RN who communicates with the pt
- Positions patient on the OR table
- Preps surgical site



Nursing Management

■ Positioning of patient

- Accessibility of operative site
- Administration and monitoring of anesthetic agents
- Maintenance of airway
- Correct skeletal alignment
- Prevent pressure on nerves, skin, bony prominences, or eyes.
- Provide for adequate thoracic excursion.



Nursing Management

- Positioning of patient
 - Prevent occlusion of arteries and veins.
 - Provide modesty in exposure.
 - Recognize and respect needs such as pain or deformities.
 - Prevent injury
 - Patient will not feel pain impulses because of anesthesia.
 - Secure extremities.
 - Provide adequate padding and support.



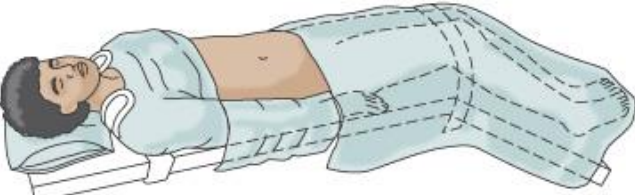
OR Positioning



Supine



Lithotomy



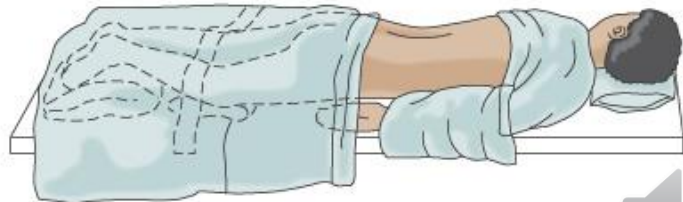
Trendelenburg



Lateral



Jackknife



Prone



Scrub Nurse

1. Sets up the sterile field and sterile instruments to be used in the procedure
2. Provides surgeon with instruments
3. MUST understand anatomy and physiology of the body
4. Maintain accurate sponge and needle count throughout procedure
5. Accounts for all instruments
6. Accounts for all irrigation fluid used



PRINCIPLES
of SURGICAL
ASEPSIS

Remember the
word
(ASEPSIS)

A

Always face the
sterile field

S

Should be above
waist level and on
top of sterile field

E

Eliminate
moisture that
causes
contamination

P

Prevent unnecessary
traffic & air current
(close door, minimize
talking don't reach across
sterile field)

S

Safer to assume
contaminated
when in doubt

|

Involves team effort
(collective and
individual sterile
conscience)

S

Sterile articles unused
and opened are no
longer sterile after
the procedure

Surgical Hand Scrub

Defenition :

Is the removal of as many bacteria as possible from the hands and arms by mechanical washing and chemical disinfection before participating in an operation.

Done prior to gowning and gloving.

1. TIME METHOD

fingers, hands, arms are
scrubbed w/ a pre
allotted time

1. TIME METHOD

a. Complete scrub-

5 – 7 minutes

b. Short scrub –

3 minutes

2. Brush stroke method-

1. Put on surgical attire
2. Perform initial handwashing
3. Use warm water
4. Bend elbows so that hand is higher than elbows
5. Do not proceed with scrubbing if you have a break in the skin or open wounds because this may contaminate the surgical wound of the patient.

6. Rinse under running water with hands higher than the elbows and keep the hands held up

7. Dry with sterile towel

Diathermy

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Objectives

Introduction

Forms of diathermy

Surgical uses & Types of diathermy

Complications

Introduction

- Diathermy, form of physical therapy in which deep heating of tissues is accomplished by the use of high-frequency electrical current.
- The term diathermy is derived from the Greek words “Therma”, meaning heat, and “Dia”, meaning through.
- Diathermy literally means “Heating through”.

Carl France Nagelschmidt, a German physician, in 1909 coined the term diathermy.

Uses

- Depending on the amount of heat generated, diathermy can be used to merely warm or to destroy tissue.
- In the first instance, it is particularly beneficial in relieving muscle soreness and sprain.
- In the second, as an adjunct to surgery, diathermy is used to
 - coagulate, prevent excessive bleeding, and
 - seal off traumatized tissues.
- It is particularly effective in eye surgery, neurosurgery & dermatology.

Electro cautery

- 1 . Surgical diathermy is usually better known as "**electrosurgery**". (It is also referred to occasionally as "**electrocautery**")
2. Electrosurgery and surgical diathermy involve the use of high frequency A.C. electrical current in surgery.

Surgical Uses

Diathermy can be used for 2 purposes :

- 1. Coagulation** – Sealing of blood vessels.
- 2. Cutting** – used to divide tissues during bloodless surgery.

Diathermy - Types

1. MONOPOLAR

2. BIPOLAR

Monopolar

Definition :

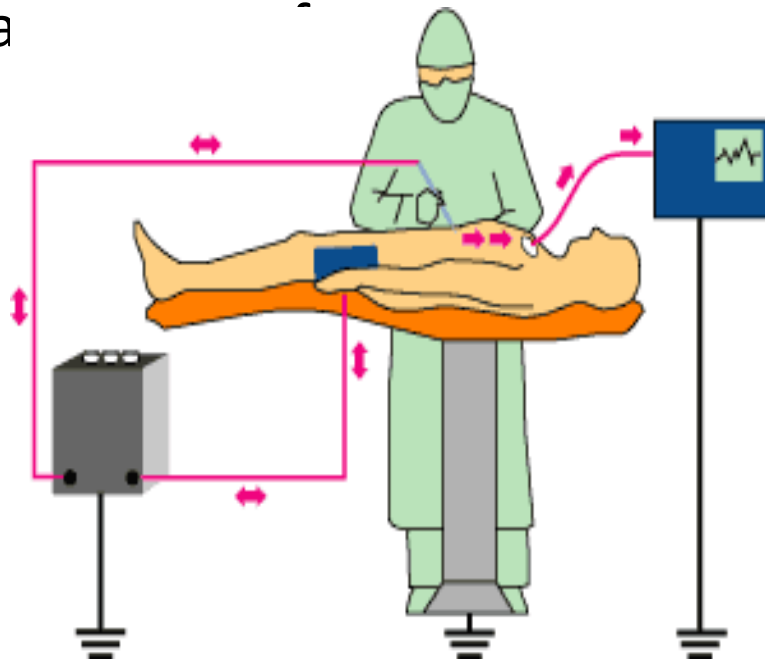
Where electrical current passes from one electrode near the tissue to be treated to other fixed electrode (indifferent electrode) elsewhere in the body.

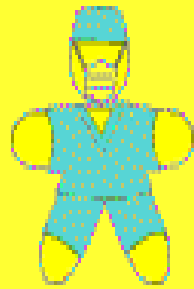
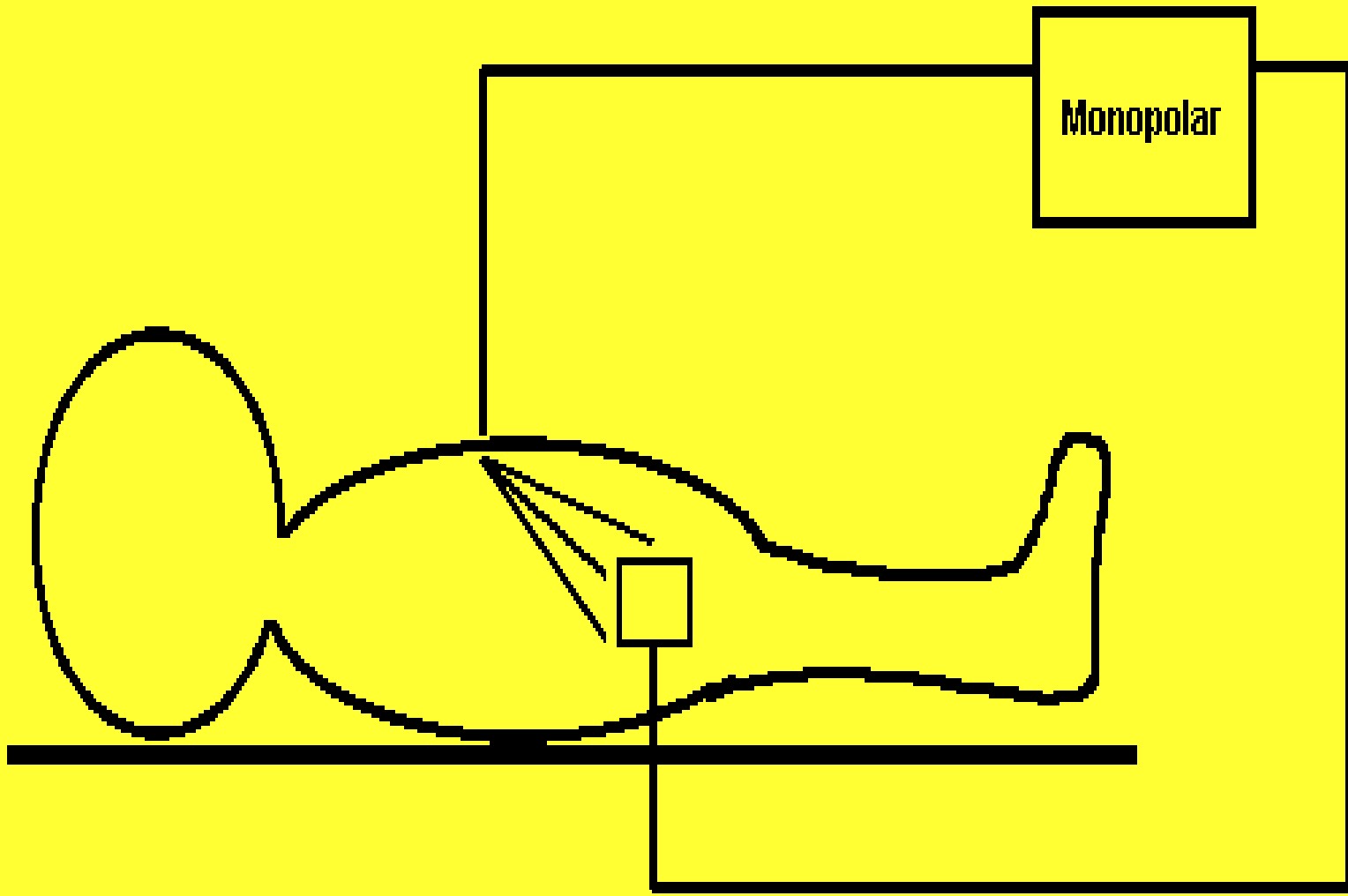
Usually this type of electrode is placed in contact with buttocks or around the leg.

Monopolar

Advantages

1. Active electrode in surgical site.
2. Patient return electrode – electrical plate – attached elsewhere.
3. Current flows through patient.
4. Localized heating at tip of instrument.
5. Minimal heating on plate a



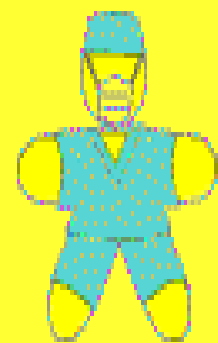
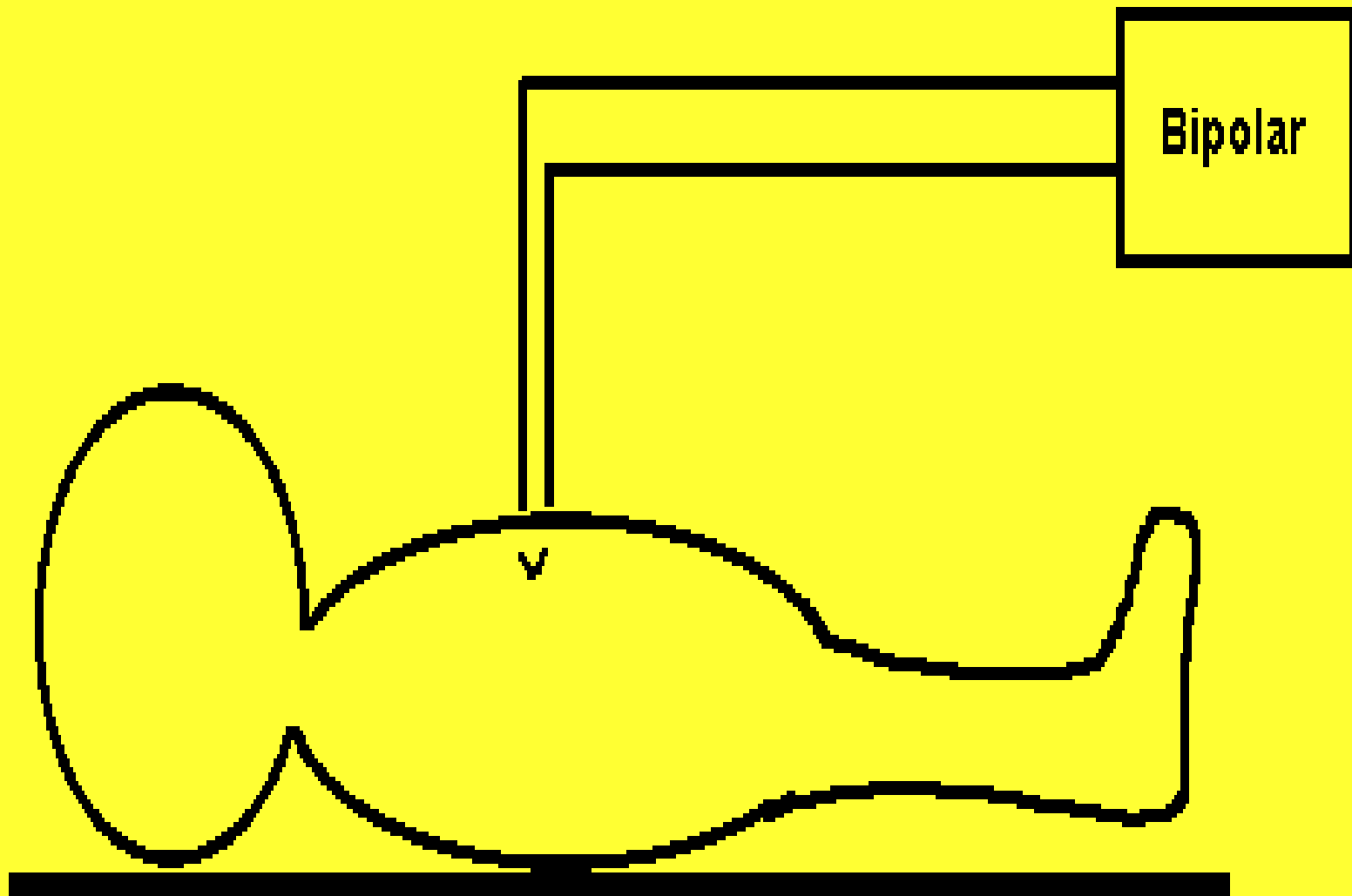


Bipolar

Definition : Bipolar, where both electrodes are mounted on same pen-like device and electrical current passes only through the tissue being treated.

Advantage of bipolar electrosurgery is that it

1. prevents the flow of current through other tissues of the body and
2. focuses only on the tissue in contact
3. This is useful in microsurgery and in patients with cardiac pacemaker.





Pure Cut

Blend

Coag

Low

Thermal Spread/Charring

High

Low

Voltage

High

Complications

A) Explosion

1. Sparks from diathermy can ignite any volatile or gases or fluid within the theatre.
2. Alcohol based skin preparation can catch fire if they are allowed to pool or around the patient.

B) Burns

1. Faulty application of the indifferent electrode with inadequate contact area.
2. Patient being earthed by touching any metal object.
3. Faulty insulation of diathermy leads.
4. Inadvertent activity such as accidental activation of foot pedal.



Others

C) Interfere with pacemaker function

D) Channeling effects if used on viscus with narrow pedicle (e.g. penis or testis)