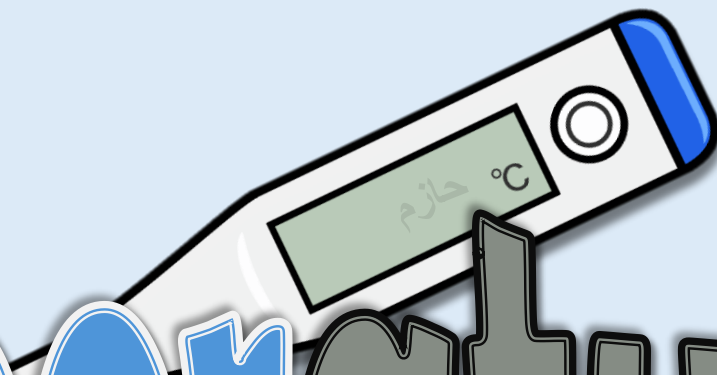


2024

OSPE
SKIS



Temperature



Types of thermometers

Glass thermometers



Disadvantages :

- **Contain toxic substances**
- **Contact with human body**
- **Long measuring time**

Heat-sensitive patches



Disadvantages :

- Use once
- Contact with human body

Digital thermometers



Disadvantages :

- Contact with human body
- Take oral, rectal, axillary, groin

Tympanic thermometer



Advantages :

- Most accurate - Most common use

Disadvantages :

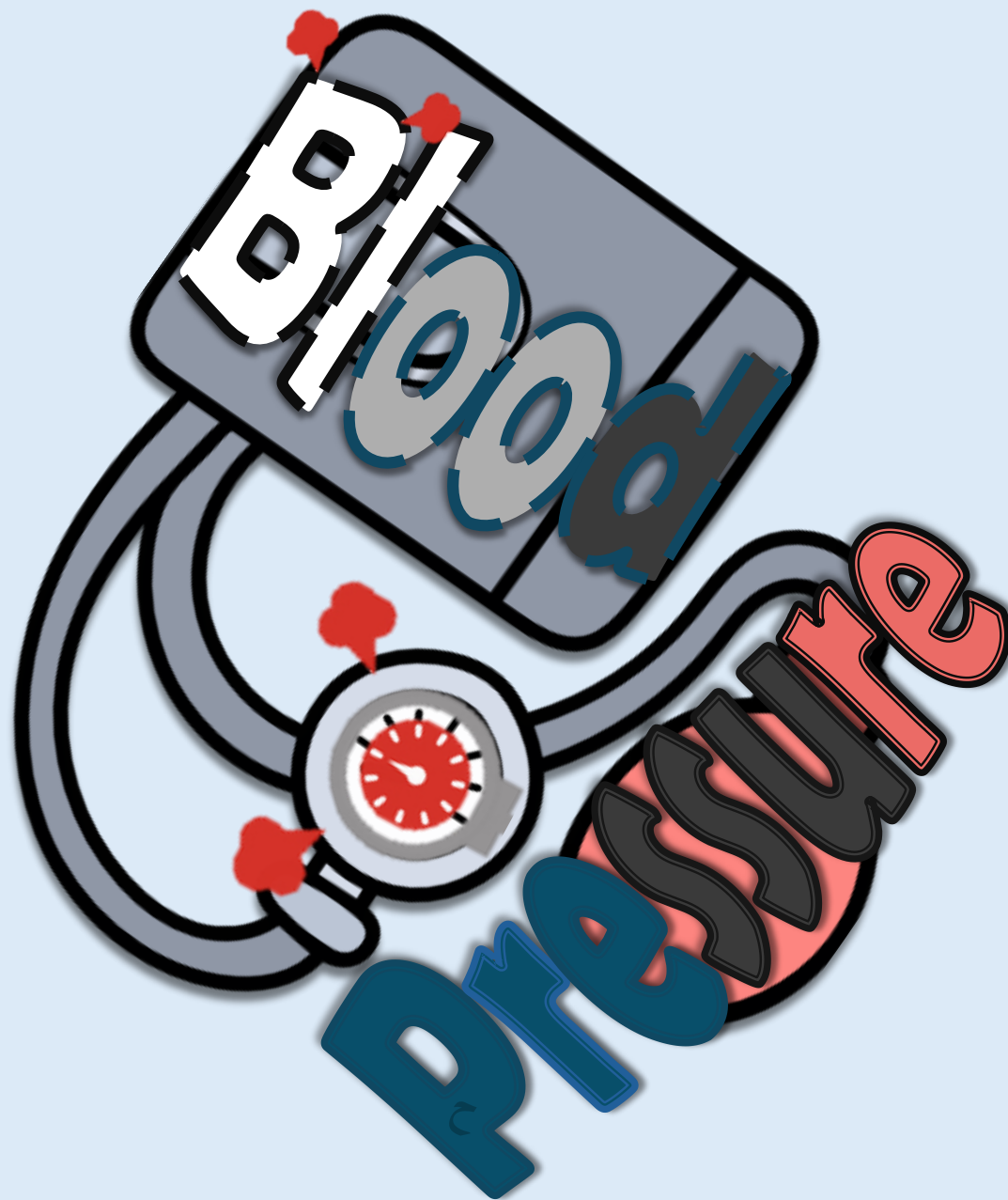
- Contact with human body

Forehead Thermometer



Disadvantages :

- Low accuracy



Types of sphygmomanometers

mercury sphygmomanometer



advantages :

- Used on most patient
- portable
- Gold Standard
- Good reliability

Disadvantages :

- Name the procedure:
 - Blood Pressure

- Checked and calibrated 5-6 months
- Contain toxic substances
- Require clinical skills to operate
- Mercury rise with increased pressure as cuff is inflated

Aneroid sphygmomanometers



- Name the procedure:
- Blood Pressure

advantages :

- Mercury Free
- Used on most patient
- Portable

Disadvantages :

- Checked and calibrated 5-6 months
- Require clinical skills
- Manual technique to observe bias

Electronic



- **Name the procedure:**
 - Blood Pressure

advantages :

- Mercury free
- Used on most patient
- portable
- No stethoscope
- Easy to use
- Digital read

Disadvantages :

- Require clinical skills
- Manual technique to observe bias



Physician Mechanical Beam Scale:

- Small Weight Indicator
- Large Weight Indicator
- Balance Bear Window
- Head Peace



- Body Mass Index
 - Weight and Height Indication:

| | Weight | Height |
|------------|--|--|
| Indication | <ul style="list-style-type: none">- Monitor treatment response:<ul style="list-style-type: none">○ Heart disease○ Renal disease○ Liver disease- Assess patient nutritional status | <ul style="list-style-type: none">- Assess children growth- Assess patient nutritional status (BMI) |

- Formula:

▪ $\frac{Weight\ (Kg)}{(Height\ (m))^2}$

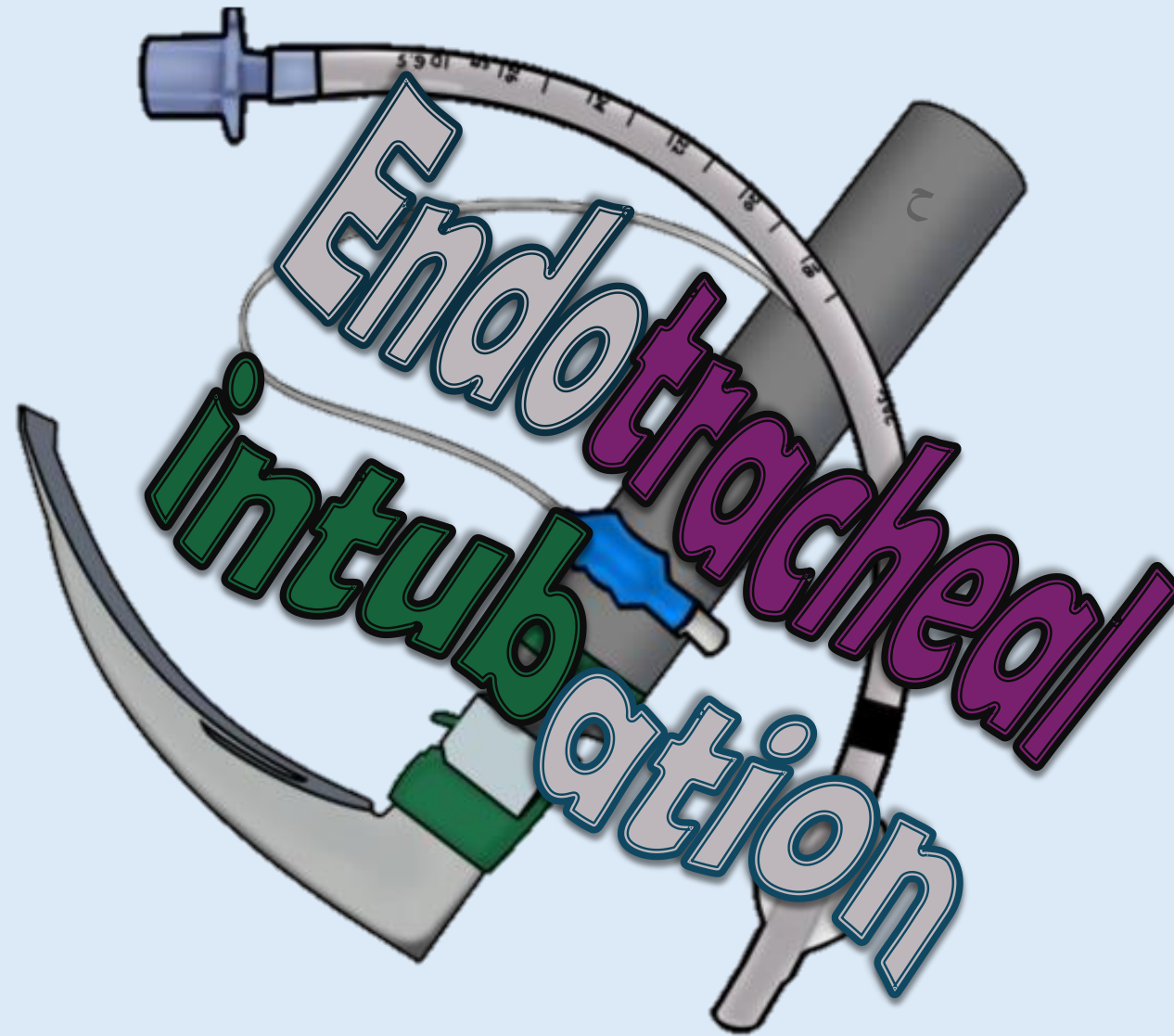
- **Body Mass Index**

- **Weight and Height Indication:**

| | Weight | Height |
|------------|--|--|
| Indication | <ul style="list-style-type: none">- Monitor treatment response:<ul style="list-style-type: none">○ Heart disease○ Renal disease○ Liver disease- Assess patient nutritional status | <ul style="list-style-type: none">- Assess children growth- Assess patient nutritional status (BMI) |

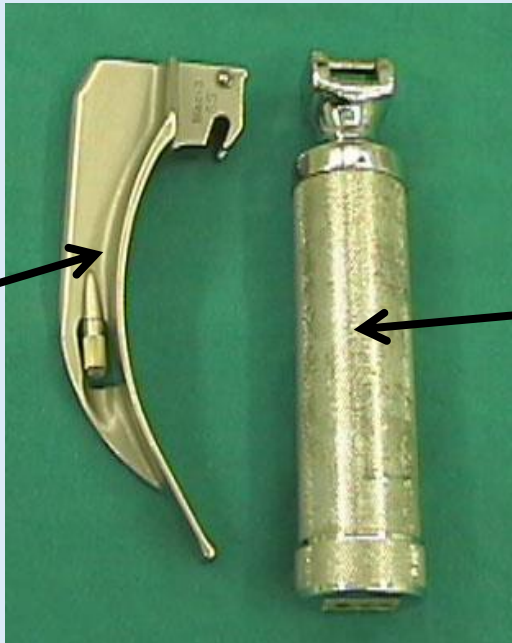
- **Formula:**

- $$\frac{Weight\ (Kg)}{(Height\ (m))^2}$$



Laryngoscope

Tongue blade



Handle



Must know the name and its parts

Laryngoscope



Miller blade

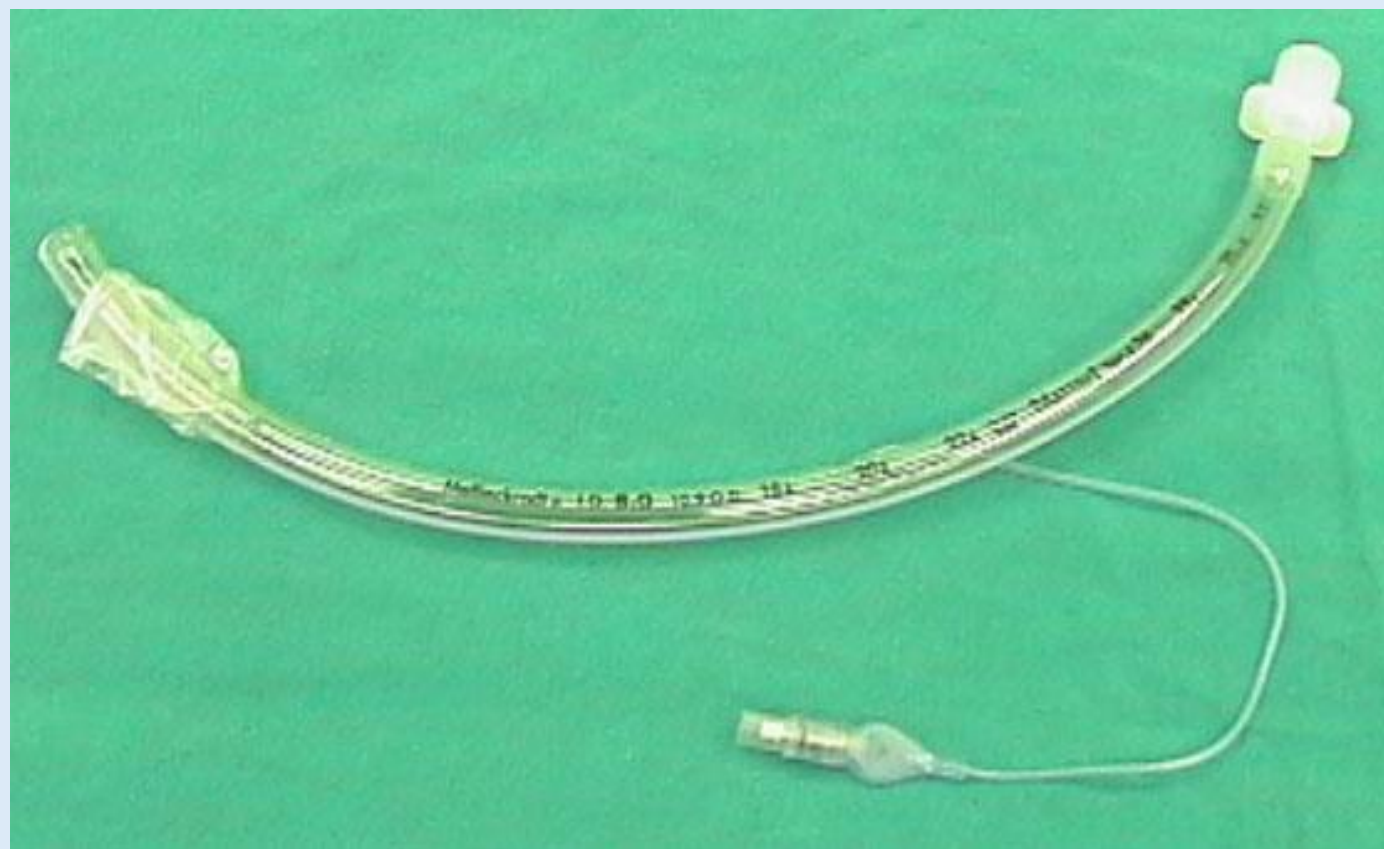
**Miller Blade - Small children
(No 2 and No 3)**



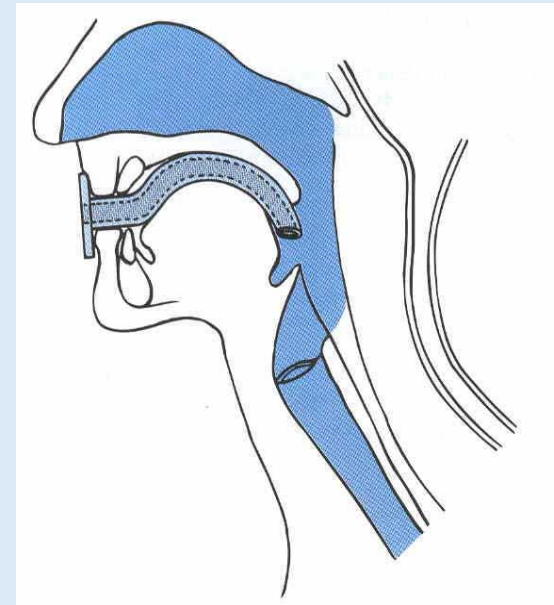
Macintosh blade

**Macintosh Blade – Adult
(No 3 and No 4)**

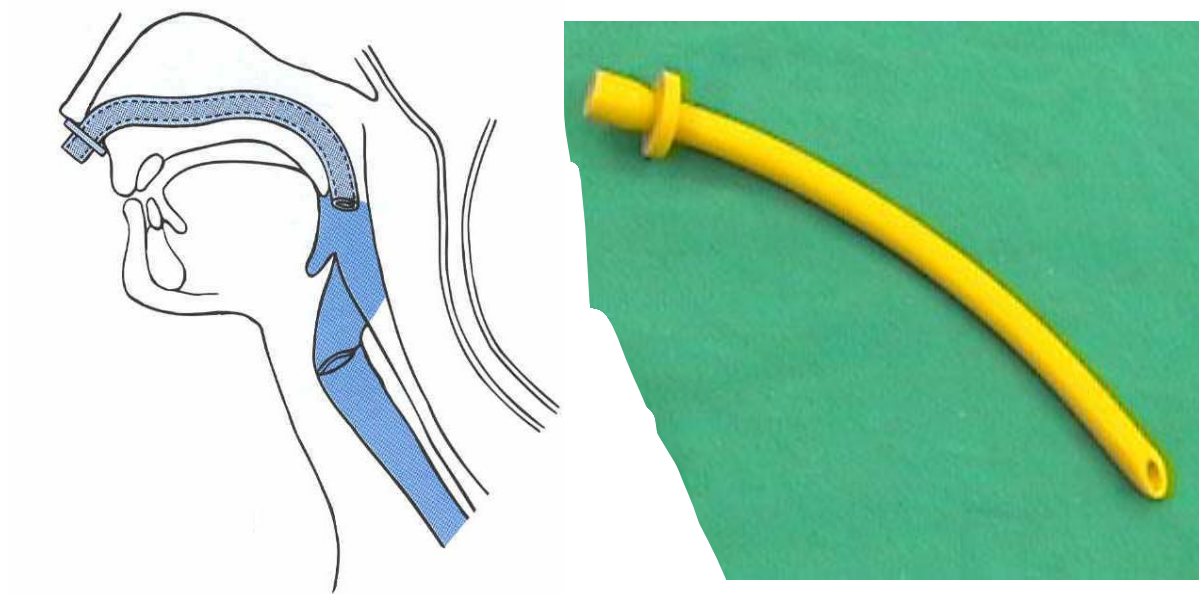
Endotracheal tube



Oropharyngeal Pathway



Nasopharyngeal Pathway



Ambu Bag



Video Laryngoscopy (Glidescope)



Indication :

Asses difficult airway

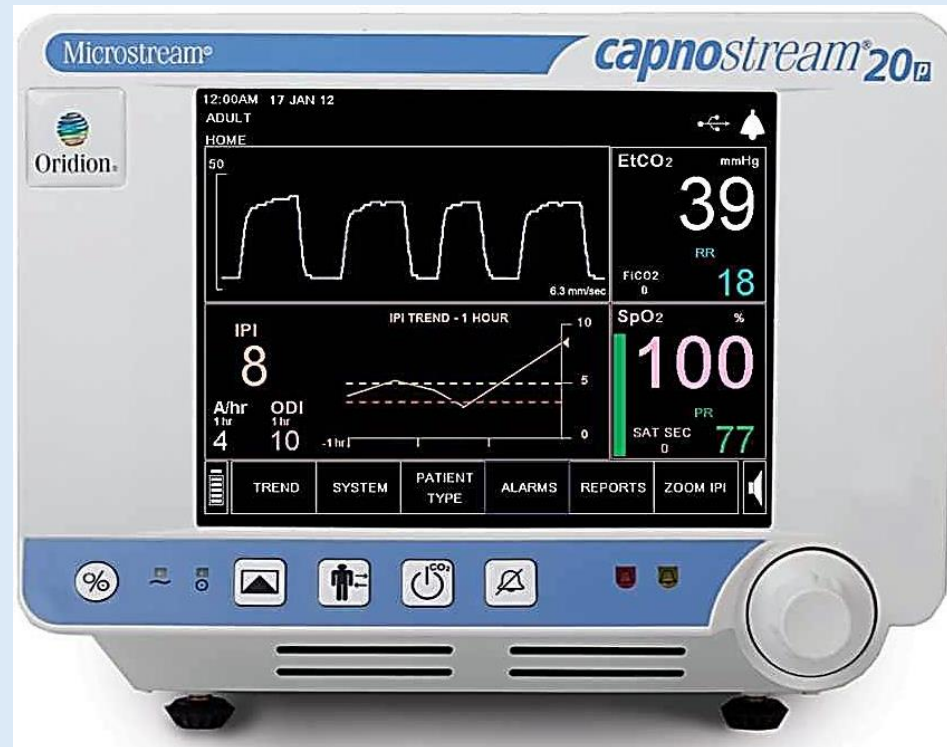
Magill forceps



Indication :

Foreign object removal

Confirmation of Tuba Placement



End Tidal Carbon Dioxide Monitor

Confirmation of Tuba Placement



end tidal co2 detector

• **Indication, Contraindication, Complication of Endotracheal Intubation:**

| Indication | Contraindication | Complication |
|--|--|---|
| <ul style="list-style-type: none">- Support ventilation in:<ul style="list-style-type: none">○ Respiratory failure○ Loss of consciousness○ General anesthesia- Patients at risk of pulmonary aspiration- Cardiac Arrest | <ul style="list-style-type: none">- Patient with intact gag reflex- Laryngeal disruption- Cervical Spine injury- Do Not Attempt Resuscitation | <ul style="list-style-type: none">- Hypertension- Laryngospasm- Bronchospasm- Sore throat- Hoarseness |

Assess difficult air way intubation:

- Mallampati Classification
- Thyromental Distance
- Flexion and extension of neck
- Laryngoscopy view
- Movement of temporomandibular joint





Name Procedure:

Arterial Blood Gas Procedure

Site of blood aspiration:

Most Common Site: Radial Artery

Alternative Sites:

Brachial Artery, Femoral Artery, Dorsalis
Pedis.

Pulse oximetry



Indication:

Measures O₂ saturation

- **Arterial Blood Gas Indication, Contraindication, Complication:**

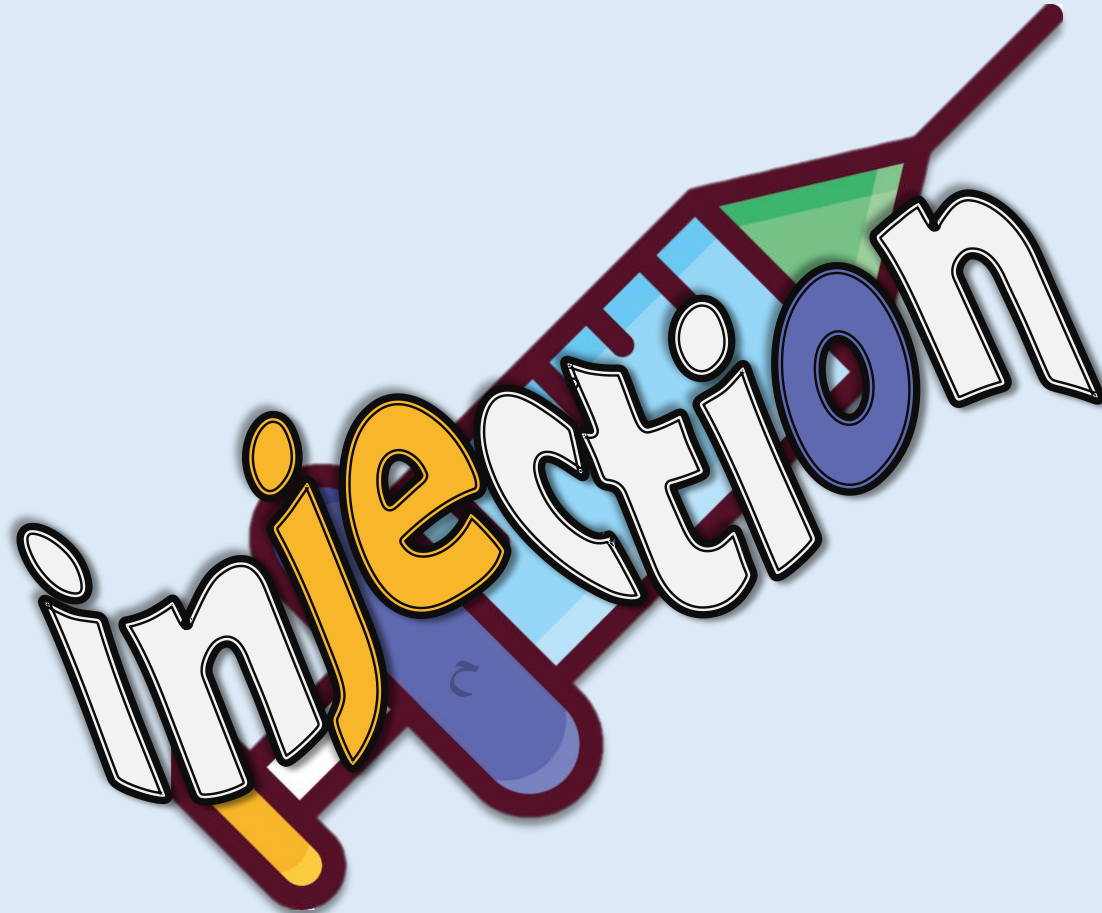
| Indication | Contraindication | Complication |
|---|--|--|
| <ul style="list-style-type: none">- Respiratory Diseases- Metabolic Disease- Invasive blood pressure monitoring | <ul style="list-style-type: none">- lesion- Beurger disease- Anti-coagulation therapy- Inadequate collateral circulation at the puncture sites. | <ul style="list-style-type: none">- Hematoma- Thrombus in the artery- Infection at the site.- Pseudoaneurysm- AV fistula |



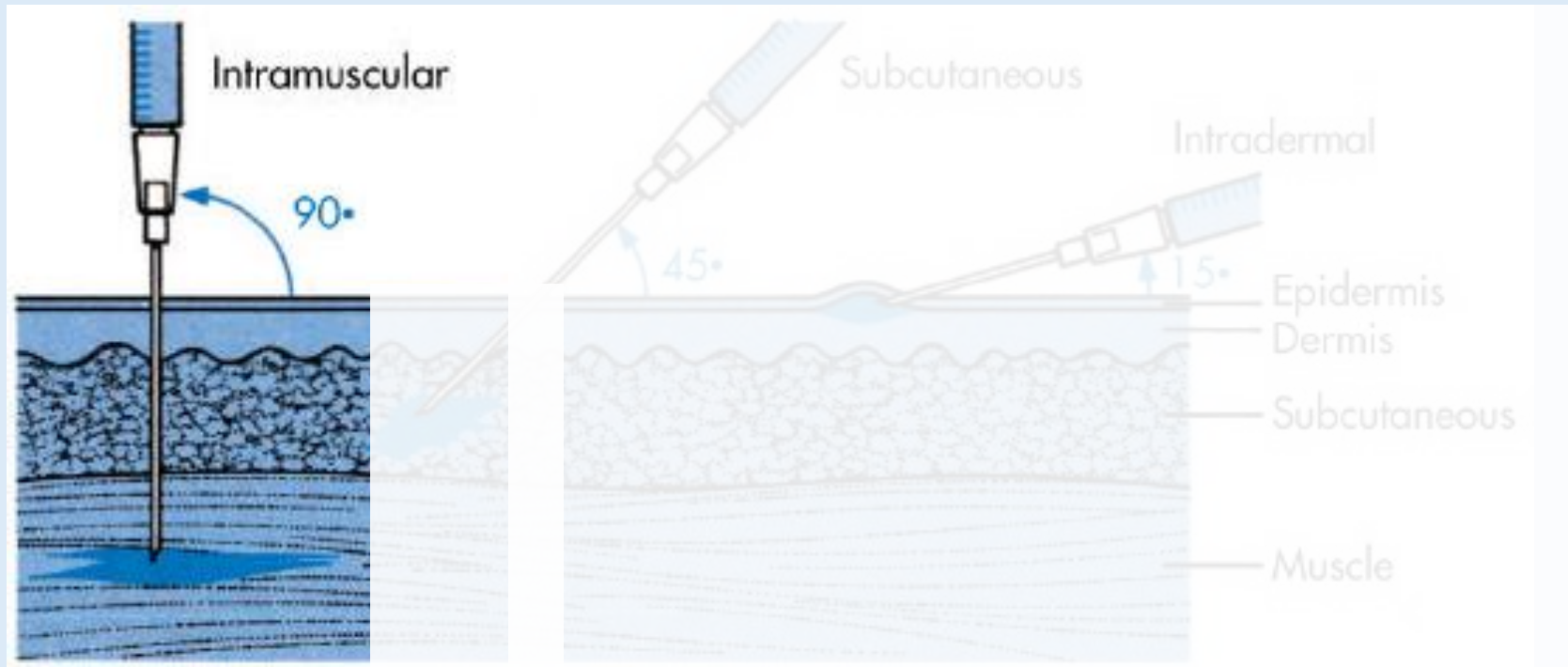
Allen's test

Name Procedure:
Allen Test

Indication:
before Arterial blood gas procedure



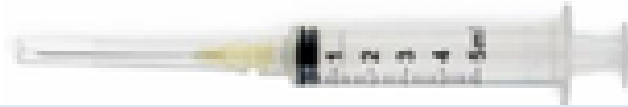
Intramuscular Injection



Intramuscular Injection

Syringe:

- 3 – 5 ml



Indication:

- Dysphagia
- Profound Vomiting
- Covid 19 Vaccine

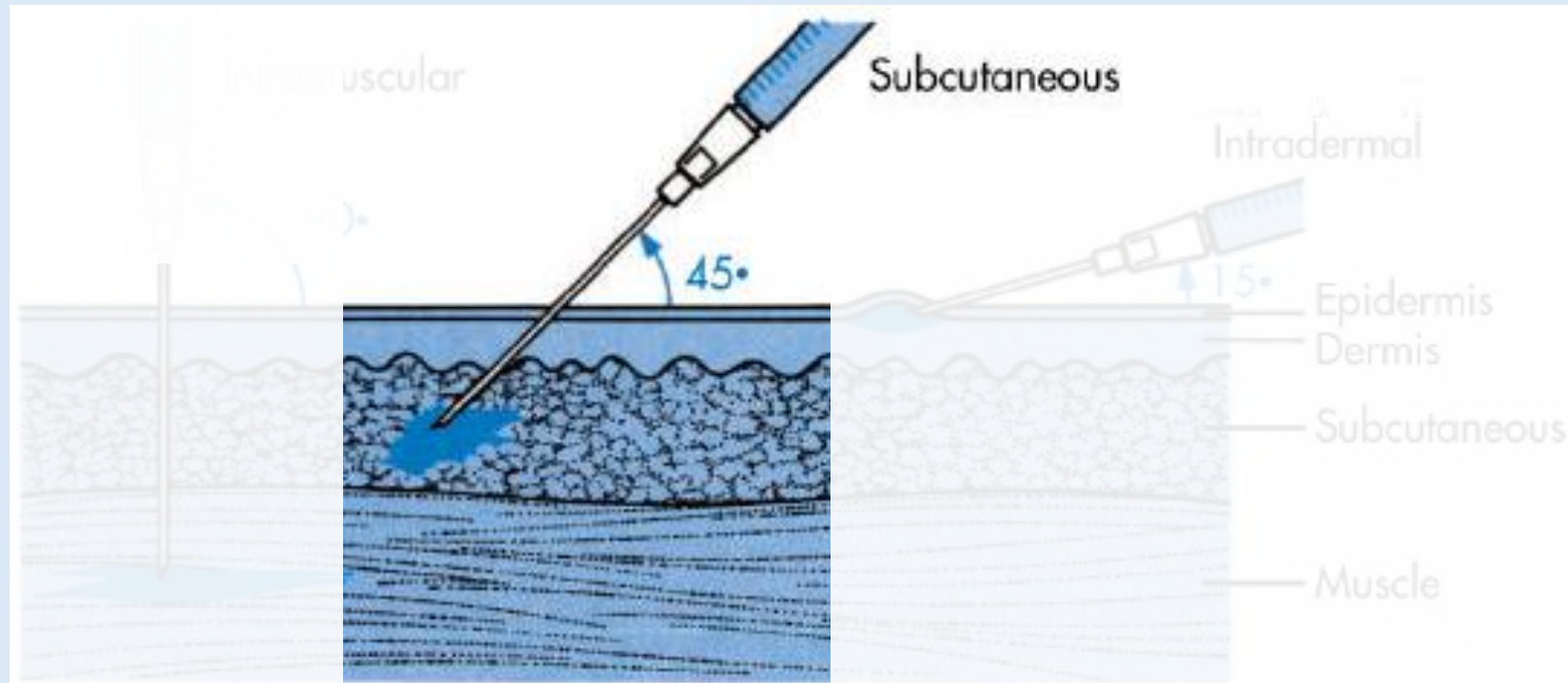
Complications:

- Pain
- Infection
- Injury to nerve
- Tissue necrosis
- Hemorrhage

Contraindication:

- Infection at site
- Allergy to medication
- Muscular atrophy

Subcutaneous Injection



Subcutaneous Injection

Syringe:

- 3 – 1 ml



Indication:

- Regular Insulin Injection
- Dysphagia
- Profound Vomiting
- No oral preparation
- Medication ineffective orally

Contraindication:

- Edema at the site
- Inflammation at site
- Shock
- Peripheral hypoperfusion
- Coagulopathy Thrombocytopenia

Complications:

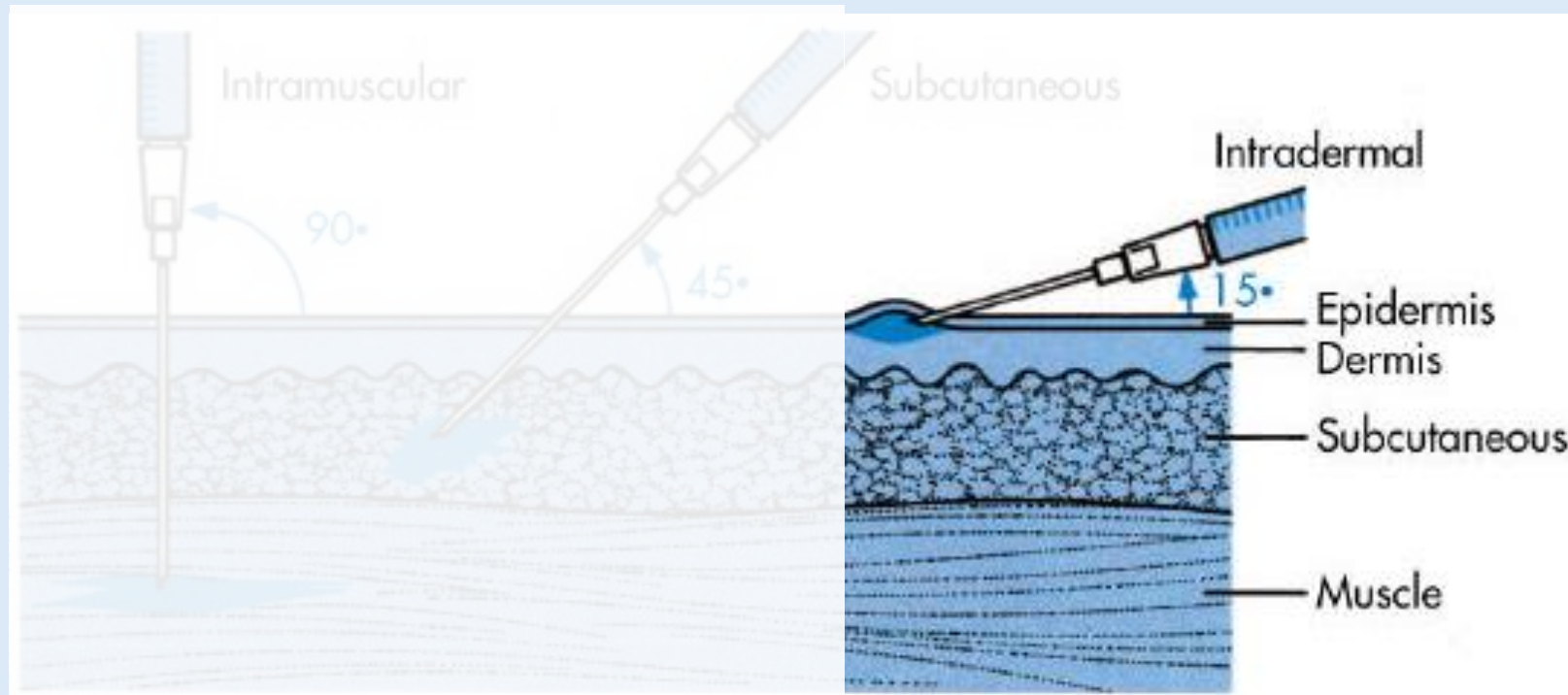
- Pain
- Infection
- allergic reaction

Sites:

- Upper arm
- Umbilical region
- Back
- Thighs
- Lower loins

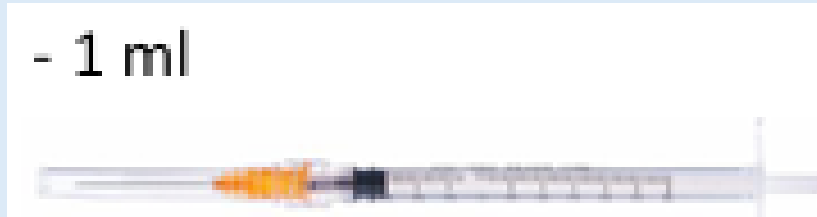


Intradermal Injection



Subcutaneous Injection

Syringe:



Indication:

- Allergic Reaction
- Antibody Formation
- PPD test
- BCG vaccine

Contraindication:

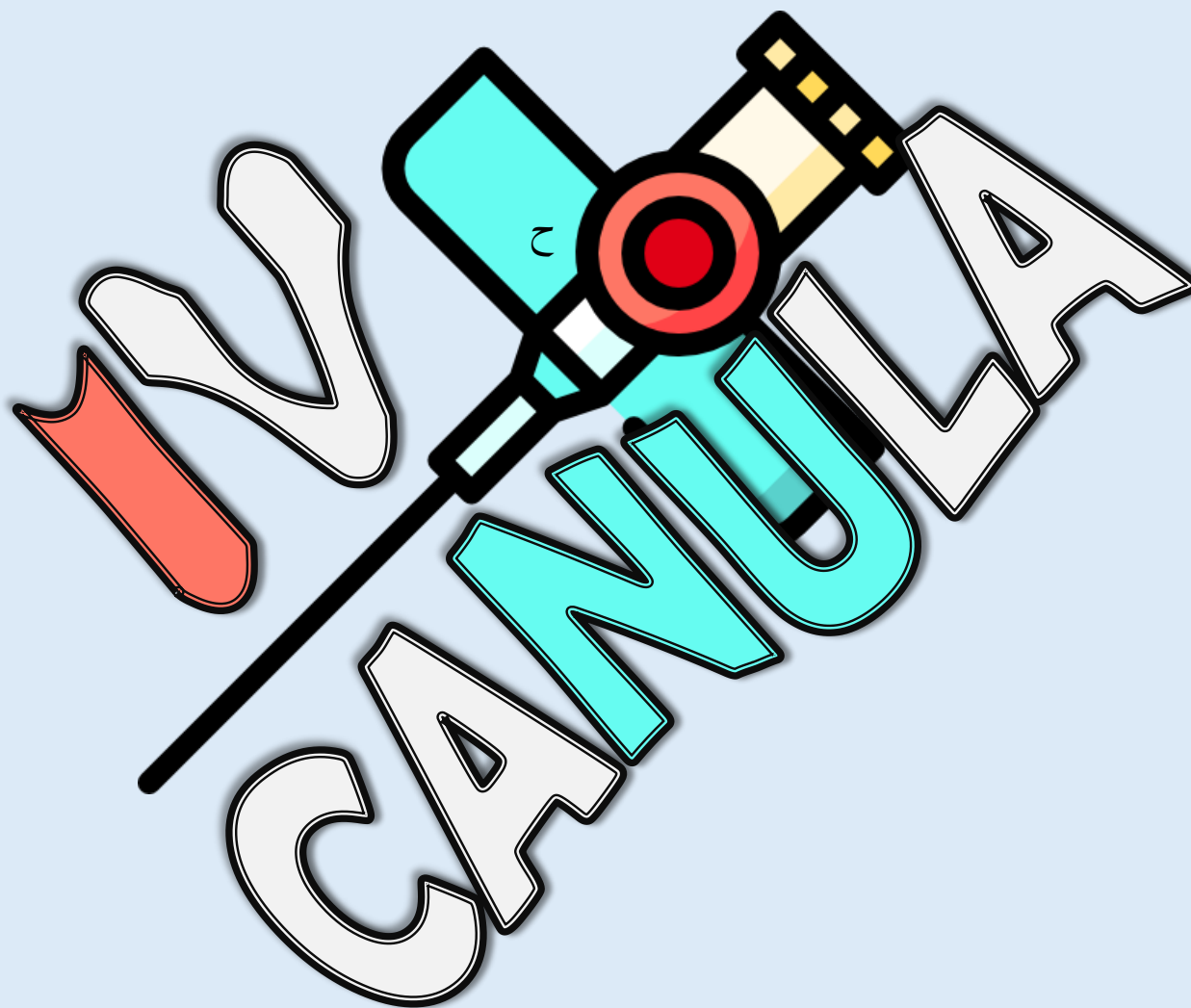
- Patient refusing consent procedure

Complications:

- Pain
- Itching
- Redness
- Swelling,
- Hard lump

Sites:

- Anterior Forearm



Intravenous Catheter



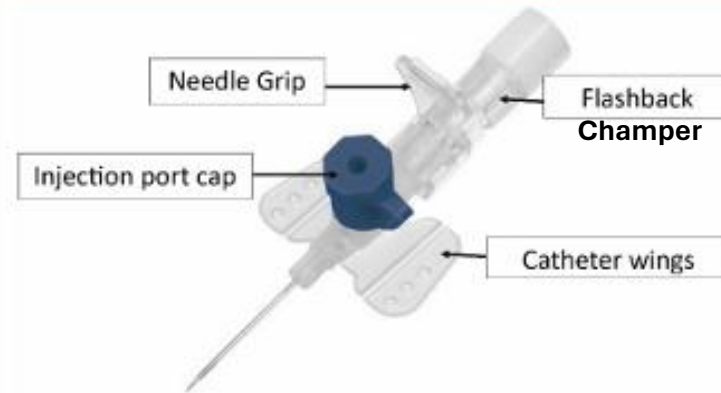
Instrument

Parts

Photo

Cannula

- Flashback Chamber
- Needle Grip
- Injection port cap
- Catheter hub wings



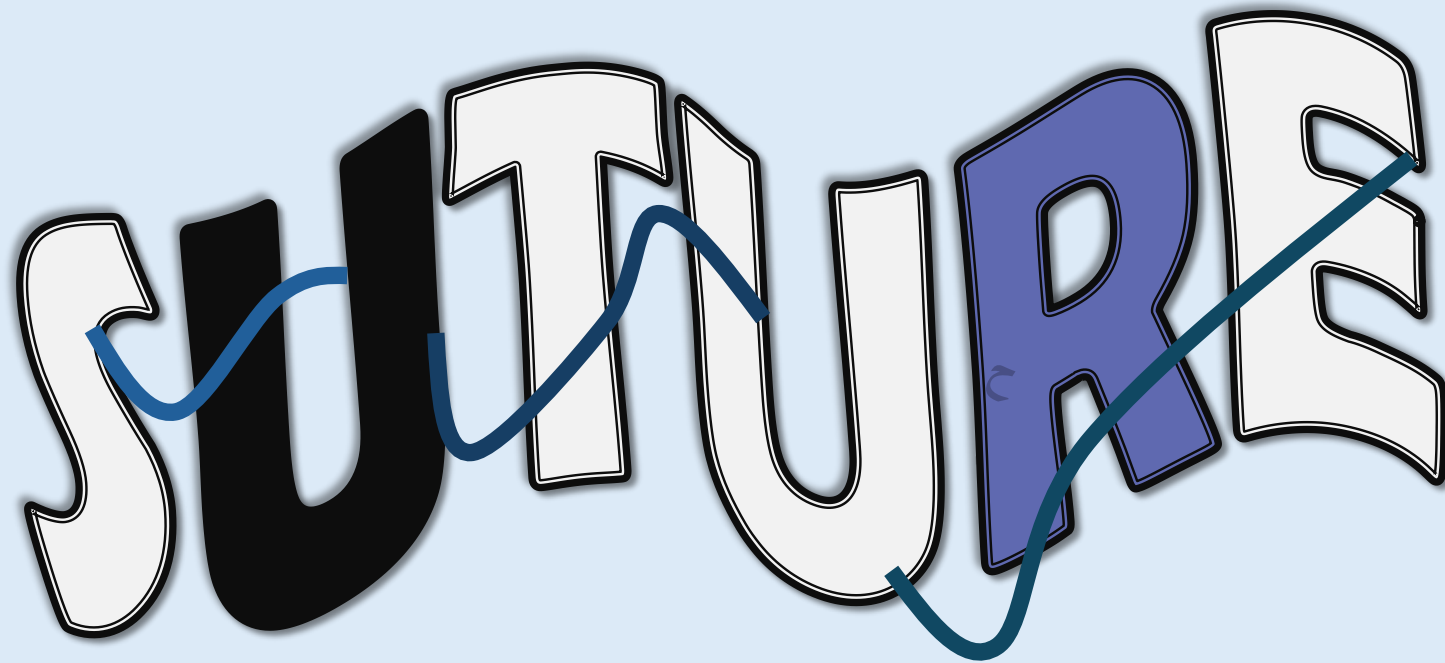
Tourniquet



• Intravenous Cannula Indication, Contraindication, and complication:










| Indication | Contraindication | Complication |
|--|---|---|
| <ul style="list-style-type: none">- Blood sampling- IV fluid administration- IV medications administration- IV chemotherapy administration- IV nutritional support | <ul style="list-style-type: none">- Injured venous- Vein of fractured limb- AV fistula- Mastectomy | <ul style="list-style-type: none">- Pain- Failure to access the vein- Arterial puncture- Thrombophlebitis- Peripheral nerve palsy |

SUTURE

The word "SUTURE" is rendered in a stylized, 3D block font. The letters 'S', 'U', 'T', 'U', and 'E' are white with black outlines and a slight drop shadow. The letter 'R' is a solid blue color. A thick, dark blue line is drawn across the letters, starting from the middle of the 'S', looping around the 'T' and 'U', and ending with a diagonal slash through the 'R' and 'E'. The entire graphic is set against a light blue background.

Surgical Suture



| Instrument | Tooth Forceps | | Non-tooth Forceps | |
|------------|---|---|---|---|
| Photo |  |  |  |  |
| Indication | - Hold Skin | | | |
| Instrument | Needle Holder | | | |
| Photo |  |  | | |
| Indication | - Hold needle | | | |
| Instrument | Suture removal scissors | | Surgical Suture | |
| Photo |  |  |  | |

Types of surgical suture

Non-absorbable

- Nylon
- Prolene
- Stainless steel
- Silk (natural, can break down over years)

Absorbable

- Vicryl
- Monocryl
- Chromic
- Cat gut (natural)

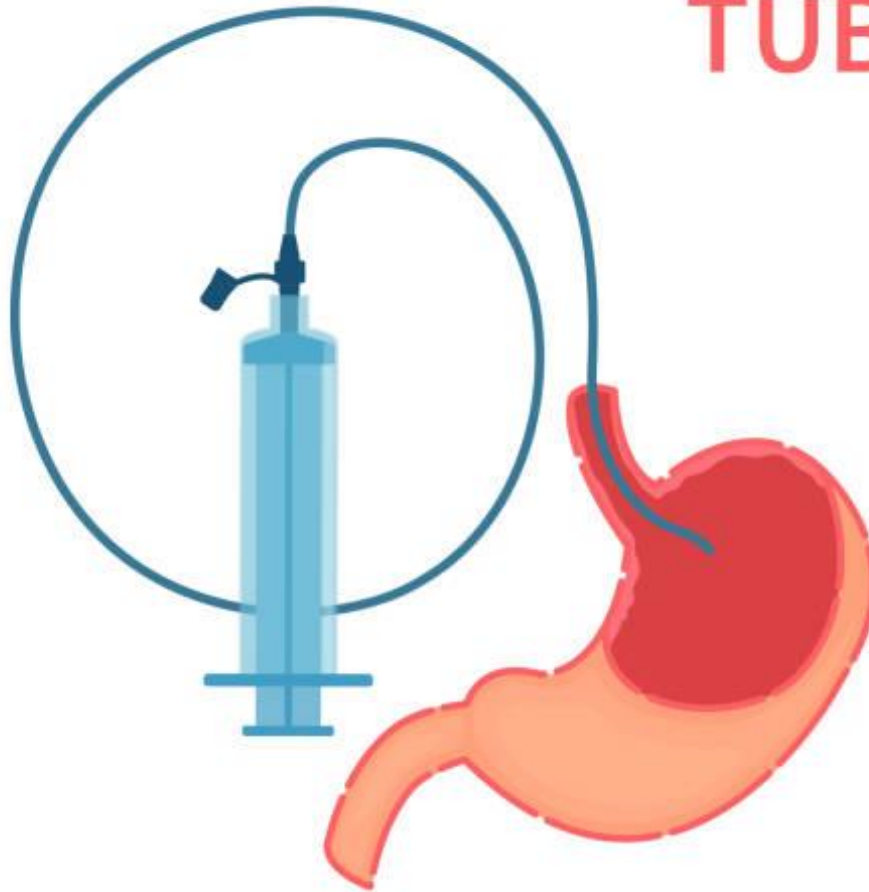
Natural Suture

- Catgut
- Silk (from silkworm fibers)
- Chromic catgut

Synthetic

- Nylon
- Vicryl
- Monocryl
- Prolene

NASOGASTRIC TUBE



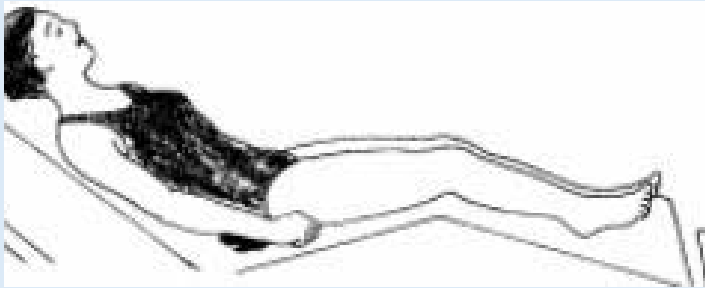
Nasogastric tubes

Name the procedure:

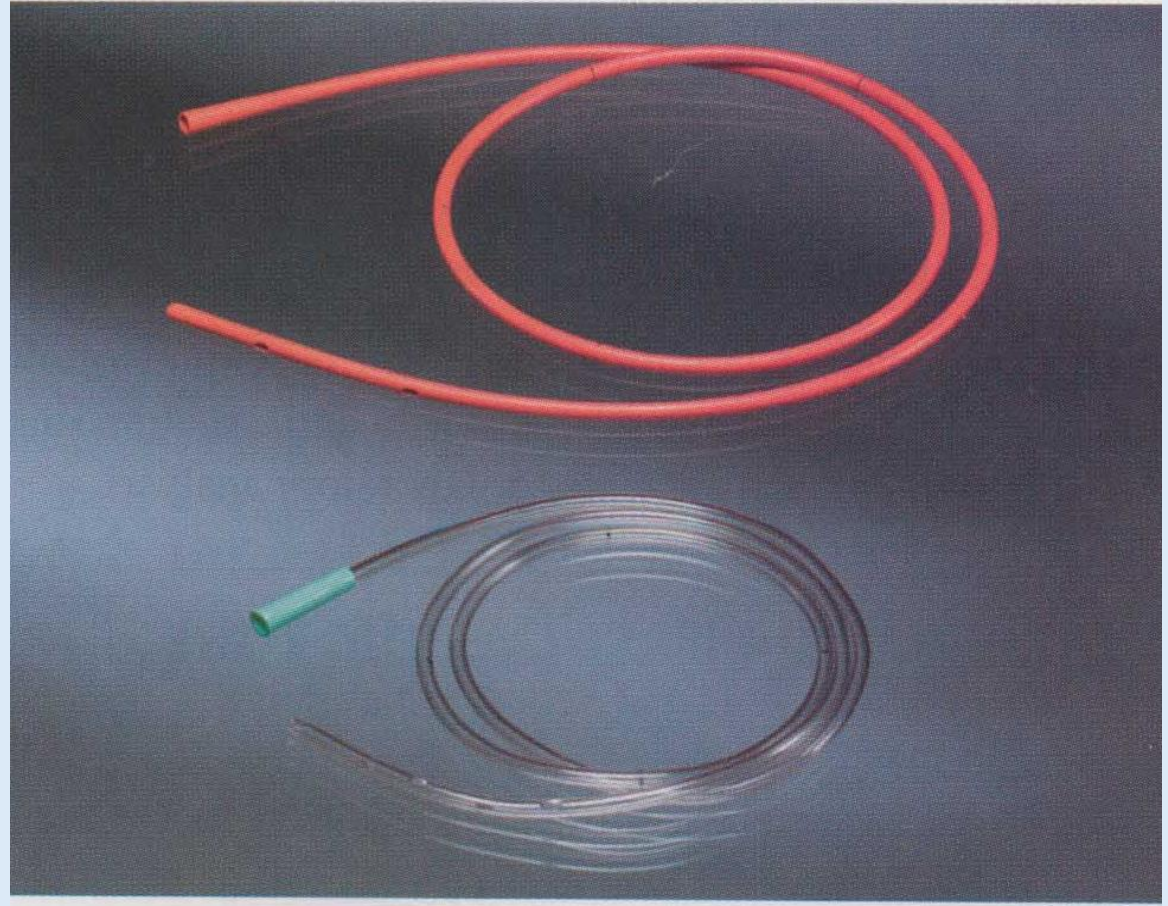
Gastrointestinal Tube insertion

• **Position:**

Semi-setting



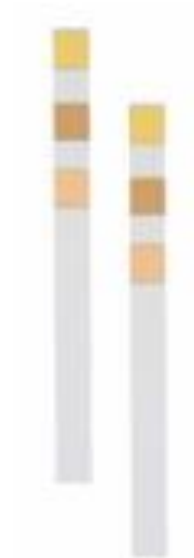
Fowler's Position



Syringe



Ph Test



Indications for GI Intubation

- To decompress the stomach and remove gas and fluid
- To lavage the stomach and remove ingested toxins
- To diagnose disorders of GI motility and other disorders
- To administer medications and feedings
- To treat an obstruction
- To compress a bleeding site
- To aspirate gastric contents for analysis

contraindications

- Diffuse peritonitis
- - Severe Pancreatitis
- - Intestinal obstruction
- - Paralytic ileus

Complications

- Clogged Tube- most common
- Oral mucosal breakdown
- Nasal irritation/ulceration
- Dumping Syndrome.
- Dehydration- diarrhea is a common problem.
- Electrolyte imbalance: hyperkalemia and hypernatremia
- Gastric mucosa ulceration

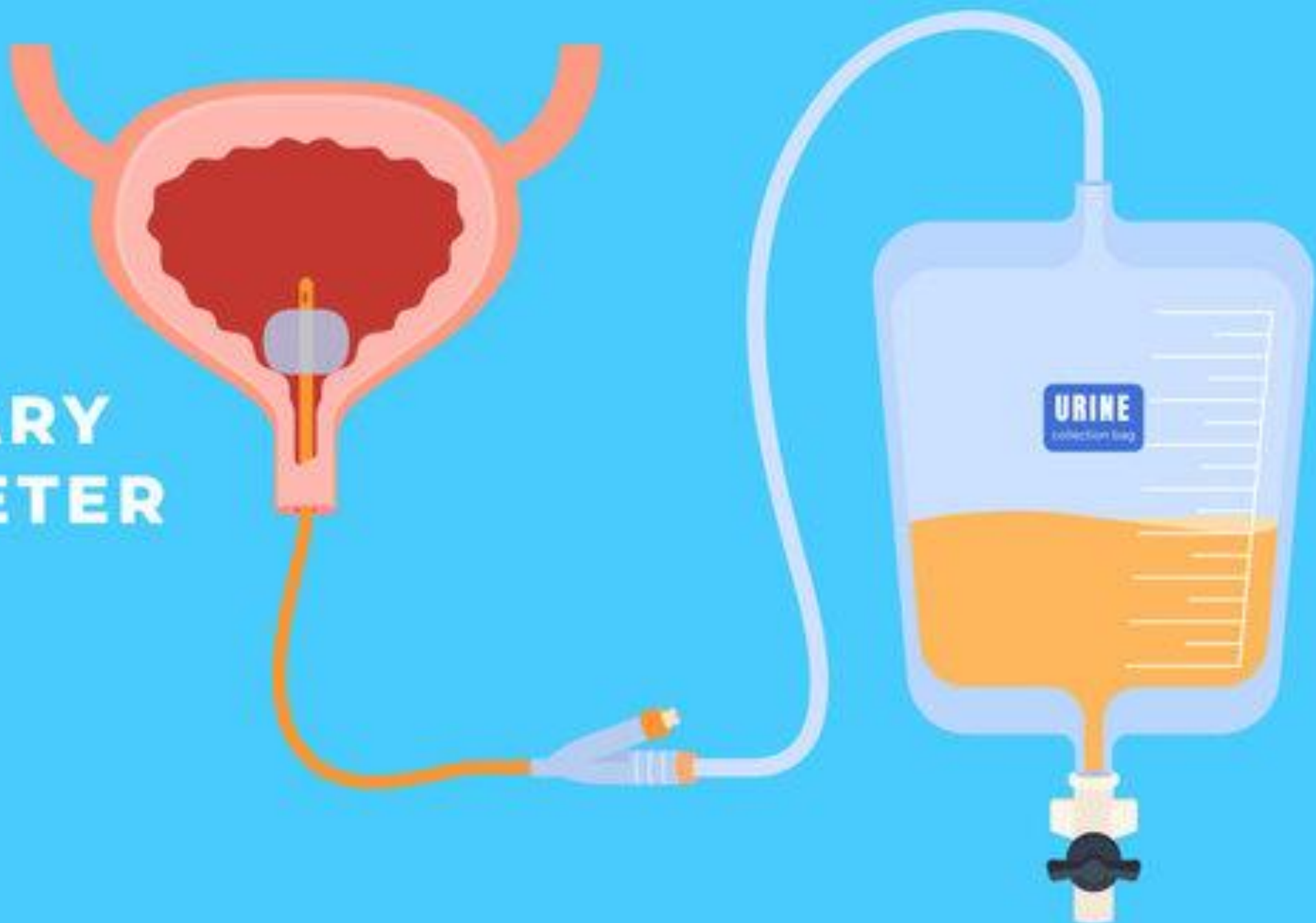
Testing Placement (Confirmation)

- Use more than one method when in doubt because all methods of confirmation have some possibility of error





Methods:

- **Insufflation test:** Insufflate air into NG tube and auscultate for rush of air over the stomach
- Aspiration of stomach content
- **PH-tested of aspiration**
- If patient awake & cooperative, ask the patient to talk, if he/she can not speak, suspect respiratory placement
- **Chest X-ray.**

URINARY CATHETER



• **Urinary Catheter instrument:**

| Foley Urinary Catheter | Straight Catheter | Three-way catheter | Coude Catheter |
|--|--|--|---|
|  |  |  |  |
| Urine bag - Keep below bladder | | Leg band | |
|  | |  | |

To diff between the two you must look at the head

**Foley Urinary
Catheter**






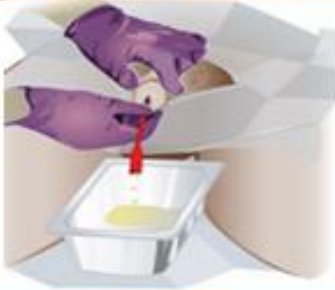




Coude Catheter



**Rigid head
and curved**

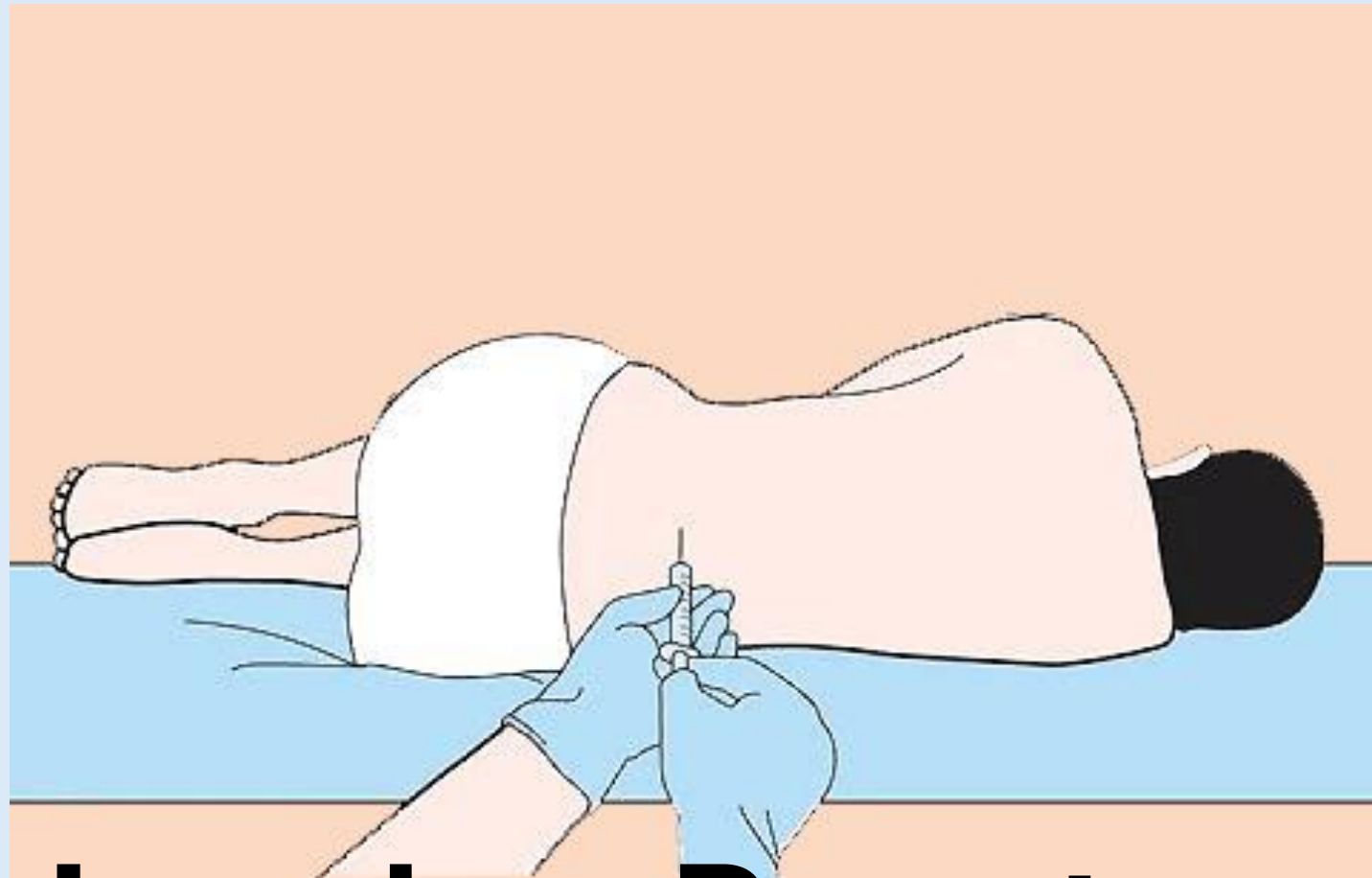


- Type of Urinary Catheter:

| Type | Photo | |
|---------------------|---|--|
| Condom Catheter |  |  |
| Straight Catheter |  |  |
| Foley Catheter |  |  |
| Suprapubic Catheter |  |  |
| Way Catheter |  | |

- **Indication, Contraindication, Complication:**

| Indication | Contraindication | Complication |
|--|---|--|
| <ul style="list-style-type: none">- Pre-operative- Post-operative- Recovery of serious injury- Collect urine for testing- Obstruction of urethra | <ul style="list-style-type: none">- Urethral injury- Urethral stricture- Bladder surgery- Combative, uncooperative patient | <ul style="list-style-type: none">- Urinary tract infection- Trauma to urethra- Trauma to Bladder- Paraphimosis- No deflation of retention balloon |



Lumbar Puncture



Name the procedure:

Lumbar Puncture

• **Instrument for lumbar puncture:**
Spinal Needle



Spinal Needle

• Indication, Contraindication, Complication:

| Indication | Contraindication | Complication |
|--|---|--|
| <ul style="list-style-type: none">- Inflammatory Pathology- Suprapubic Hemorrhage- Malignancy- CSF drainage- Drug Delivery | <ul style="list-style-type: none">- Bacteremia- Preexisting neurological disease- Previous spinal surgery- Back problems | <ul style="list-style-type: none">- Headache- Epidural- Subarachnoid hematoma- Spinal cord trauma- infection |

GOOD LUCK