MEMBER SPECIFIC TRAINING

2025

AGENDA

- Medications
- Respiratory
- Neurological
- Nutrition
- Genitourinary
- Integumentary

MEDICATIONS

GENERAL MEDICATION TIPS

Follow the 5 Rights:

1. Right person
2. Right medicine
3. Right dose
4. Right way (mouth, tube, etc.)
5. Right time

GIVING MEDICATION TO CHILDREN

- Use Liquids When You Can: Liquid medicine is easier for kids and works better with feeding tubes.
- Ask Before Crushing Pills: If you only have pills, ask a pharmacist if they can be crushed. If it’s okay, crush them into fine powder and mix with water.
- Don’t Crush Special Pills: Some pills (like extended-release or coated pills) should never be crushed. They won’t work right and may be unsafe.
- Sit the Child Up: Make sure the child is sitting up when giving medicine, so they don’t choke.

GIVING MEDICATION THROUGH A G-TUBE

Before Giving Medicine:

- Get Supplies Ready: You'll need medicine, water, syringes, pill crusher (if needed), and the G-tube extension set.
- Wash Your Hands: Use soap and water to keep everything clean.
- Check the Tube: Make sure the G-tube is in the right place.

After Giving Medicine:

- Clean Everything: Wash syringes and parts with warm, soapy water. Let them air dry.
- Watch for Problems: Look for signs like tummy pain, vomiting, or changes in behavior. Call the doctor if you notice anything unusual.

How to give the medication

1. Flush the Tube First: Use water (amount written in the care plan) to clear the tube before you start.

2. One at a Time: Give each medicine by itself, with a water flush after each one.

3. Don't Mix: Don't mix medicines together or with formula unless a doctor says it's okay.

4. Use the Medicine Port: If the tube has a medicine port, use that to keep things clean

5. Clamp the Tube: After giving the medicine and flushing with water, clamp the tube shut.

GIVING MEDICINE WITH A NEBULIZER

Plug in	• Get the Nebulizer Ready: Plug in the machine and connect the tubing, medicine cup, and mouthpiece or mask.
Use	• Measure the Medicine: Use the correct amount of liquid medicine, as prescribed, and pour it into the medicine cup.
Make	• Sit the Child Up: Make sure the child is sitting upright in a chair or on your lap.
Turn on	• Turn It On: Turn on the nebulizer. You should see mist coming out.
Have	• Breathe Slowly: Have the child breathe in and out slowly through the mouthpiece or mask until all the medicine is gone (usually 5–10 minutes).
Wash	• Clean the Parts: Wash the medicine cup, mask, and tubing with warm, soapy water. Let them air dry.

USING A METERED DOSE INHALER (MDI) WITH A SPACER

- Shake the Inhaler: Shake the inhaler well before each use.
- Connect to Spacer: Attach the inhaler to the spacer device.
- Sit the Child Up: Have the child sit upright or stand.
- Seal with Mouth or Mask: Place the mouthpiece in the child's mouth or use the mask over the nose and mouth. Make sure it seals well.
- Spray the Medicine: Press down once on the inhaler to release one puff of medicine into the spacer.
- Slow Deep Breaths: Have the child take slow, deep breaths in and out for about 5–6 breaths, or hold one big breath for 10 seconds if they can.
- Repeat if Needed: Wait about 30 seconds to 1 minute before giving another puff if prescribed.
- Clean the Spacer: Wash the spacer weekly with warm, soapy water. Let it air dry.

Important Safety Tips

Ask Before Crushing Pills: Always check with a doctor or pharmacist first.

Some Pills Are Not Safe to Crush: Special pills (like coated or extended-release) must stay whole to work right.

Watch for Side Effects: Call a doctor if you see signs like vomiting, diarrhea, or strange behavior.

Keeping Records

- Write it Down: Keep a log of what medicine was given, when, how much, and any reactions.
- Talk with the Healthcare Team: Review the medicine list often. Get approval from your child's doctor for any new medication or supplement. Tell your case manager about any new prescription or over-the-counter medicine

VIDEO RESOURCES

- **This is a great video from Bethany Children's Health Center explaining how to give medications in many ways:** https://youtu.be/YKhQhq0kK5E?si=5HNFX9Etopq3nXLb
- **This video provides information about medication safety for children:** https://youtu.be/R4ArJD0fHdY?si=MqNdTYX2AQ7J7JcL
- **This video is about giving emergency seizure medication Midazolam:** https://youtu.be/KBvFywzUD28?si=y8tiIVaQQTaYzshR

RESPIRATORY

PULSE OXIMETERY

Pulse Oximetry is an easy-to-use device that helps determine how well oxygen perfuses throughout the body.

This device can be an aid for you (the parent) and provides minimal discomfort to your child.

Placing the Probe

1. Choose a Finger or toe that works best for your child. For infants the Pulse ox probe can be wrapped around the entire foot. No nail polish on the chosen finger, thus will cause inaccurate

2. Place the pulse ox probe onto the chosen location. Be sure that the infrared Light (red light) is placed correctly to avoid burning/irritation to the skin. Pulse ox wrap Infants foot (Infrared light should be placed on the outer side of the foot)

Toes (Infrared light should be placed directly on the toenail)

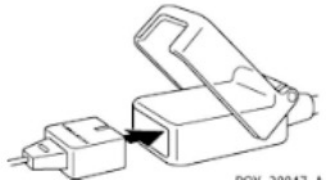
Fingers (Infrared light should be placed directly on the fingernail)

Important: Be sure to move the pulse oximeter to different locations at least ever 12hours or if redness occurs to avoid burning and irritation from the probe.

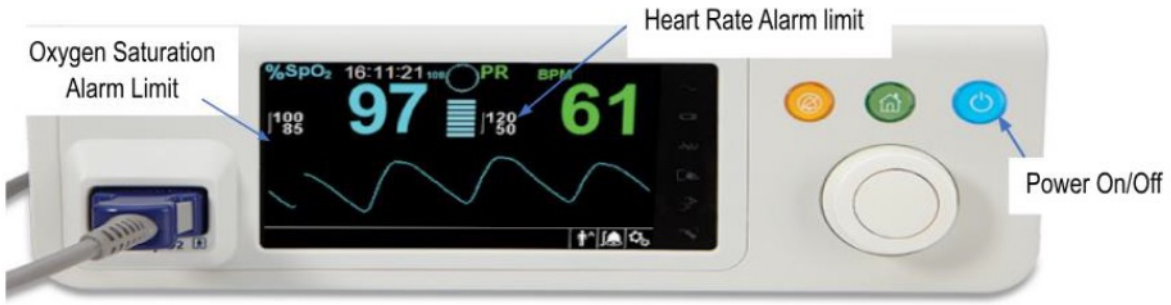
3. Once Infrared light is placed on the chosen area, wrap the sticky band around to secure the probe in place, but not too tight for it to restrict blood flow. The light detector should be positioned on the opposite side to absorb the light.

** If the tape is not sticking anymore, rewrap the probe with replacement bands or fabric tape.

PULSE OX MACHINE



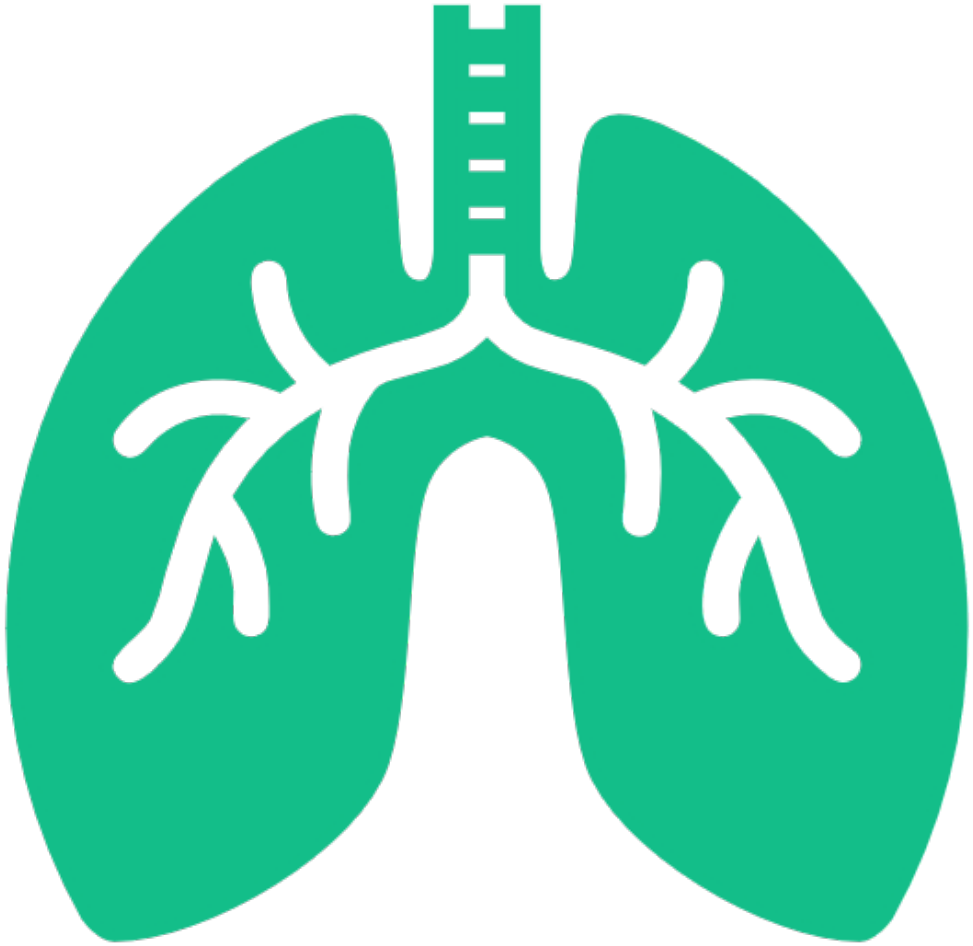
- Plug the pulse oximeter machine into an electrical outlet and turn it on by pressing the power button.
- Connect the end of the probe to the pulse oximeter machine cable. The results should then be displayed on the screen



- There are many reasons the machine can alarm, the first thing to do is look at your child then determine the next steps. If your child is showing signs of distress act as trained. If your child is acting normally and/or moving, check the location of the pulse oximeter. Movement will interfere with the reading on the device. Some devices have a waveform display. The wave form can help you determine how well the machine is reading, If the wave form is steady this would indicate accurate results. If the wave form is inconsistent, the probe is unable to read accurately.

OXYGEN

- Oxygen is an important gas needed for human survival. Room air only has about 21% oxygen. If someone is sick or has chronic lung damage, they may need supplemental oxygen either in the hospital or at home. Oxygen is a drug, it must be prescribed by a physician and monitored to prevent injury.



HOME OXYGEN SAFETY: OXYGEN IS A SAFE, NON-FLAMMABLE GAS, IT DOES SUPPORT COMBUSTIONMEANING THINGS BURN MORE READILY AND IGNITE EASIER IN ITS PRESENCE

Signs	No Smoking	No open flames	Avoid products	Avoid electricity sparks	Avoid Static Electricity
• Always hang noticeable signs outside your house saying “Oxygen In Use” and “No Smoking” to notify all visitors	• •Never smoke or allow anyone to smoke around oxygen • The Centers for Disease Control and Prevention (CDC) reports that 89% of deaths related to fire and home oxygen use are caused by smoking	• Keep oxygen at least 5-10 feet away from any heat source such as gas stoves, fireplaces, wood burning stoves, candles, lighters, or any other type of flame	• Avoid using lotions, creams, or other home care products containing petroleum. Only use water-based products • Avoid aerosol cans such as hairspray • •Avoid nail polish remover and rubbing alcohol	• Avoid using anything that may cause a spark around home oxygen, including electric blankets, heaters, electric razors, electric hair dryers or friction toys	• Avoid nylon or woolen clothing • If possible, use a humidifier in winter to add moisture to dry air in the house

HOME OXYGEN SAFETY

Smoke alarms	Fire Extinguisher	Evacuation Plan	Inform
Install and maintain smoke detectors in your home. Replace batteries regularly. Perform weekly checks	Keep at least one fire extinguisher around your home. Make sure you are aware of how to use in an emergency	Have an emergency evacuation plan and practice often to prepare incase this situation arises.	Inform your local fire department, and power company

OXYGEN DELIVERY DEVICES IN THE HOME: OXYGEN CAN BE DELIVERED BY OXYGEN CONCENTRATORS AND PORTABLE OXYGEN TANKS. EACH DEVICE CAN VARY IN SIZE AND SHAPE.

Oxygen Concentrator

- An oxygen concentrator receives air, purifies it, and then distributes the newly formed air. Before it goes into the concentrator, air is made up of 80 percent nitrogen and 20 percent oxygen. An oxygen concentrator converts the air into 90 to 95 percent pure oxygen and 5 to 10 percent nitrogen.

Proper Storing

- Keep the unit at least 1ft (12in) from walls, draperies, or any objects that might prevent the proper flow of air in and out of the oxygen concentrator.
- Store in a well- ventilated area to avoid pollutants or fumes
- The unit should be at least 7 feet from fireplaces, radiators, heaters, and hot air registers.
- Keep the concentrator at least 7 ft from a water source, such as the bath, or sink.
- Plug the concentrator into the grounded electric outlet, do not plug into a power strip.
- Tubing should be no more than a 50 ft of oxygen tubing plus the oxygen deliver tubing such as nasal cannula
    - Thus, to ensure proper oxygen supply to the patient, longer oxygen tubing can cause a delay and increase oxygen amount may be needed.
- Do not overfill the humidification bottle, use only cool sterile/distilled water.

TROUBLESHOOTING (PROVIDED BY MANUFACTURER)

SYMPTOM	PROBABLE CAUSE	SOLUTION
Alarm: No lights illuminated. Short Beeps, long pause Concentrator not operating, power switch On. Beep...Beep...	**Main Power Loss:** 1. Power cord not plugged in. 2. No power at outlet. 3. Tripped circuit breaker.	1. Insert plug into outlet. 2. Inspect house circuit breakers or fuses. If problem recurs, use a different outlet. 3. Push/reset circuit breaker. If problem recurs, call service provider.
Alarm: RED light illuminated. Continuous on. Concentrator not operating, power switch On. Beep...	**System Failure:** 1. Unit overheating due to blocked air intake. 2. Insufficient power at outlet. 3. Internal repairs required.	1. Do one or both of the following: a. Remove and clean cabinet filters. b. Move oxygen concentrator at least 12 in (30, 5 cm) away from walls, draperies or furniture. 2. DO NOT use extension cords. Move to another electrical outlet or circuit. 3. Call service provider.
Alarm: GREEN light illuminated. Rapid Beep...Beep... Beep...Beep	**Potential Obstruction Alert** 1. Possible internal obstruction in the oxygen path. Kinked or blocked tubing, cannula or humidifier. 2. Flowmeter set at 1.0L/min or less.	1. Inspect for kinks or blockages. Correct, clean or replace item. Once corrected, turn power Off for 60 seconds and then turn power back ON. 2. Reset flowmeter to prescribed flowrate.

CLEANING/DISINFECTING

Outside

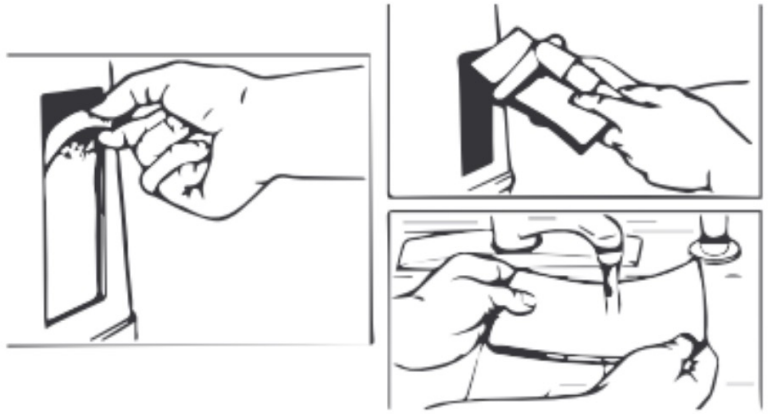
- Never soak, spray or drip water onto the concentrator, thus can cause injury to you or the device.
- Never clean with harsh chemicals such as alcohol, chlorine, or oil-based products. Thus, can damage the concentrator.
- Always turn the machine off and unplug before cleaning/disinfecting.
- Periodically clean the outside with a damp wash cloth with mild detergent soap. Let it try completely or with a dry towel before operating.

Humidification and Supplies

- Replace Oxygen tubing monthly or recommended by DME company
- Replace bubble humidifier bottle every 30 days or recommended by DME company
    - Clean every 14 days, wash bubble humidifier with warm soapy water, rinse with distilled water. Dry completely before replacing.

FILTER: (LOCATED ON THE BACK OR SIDE(S) OF UNIT)

- Turn the concentrator off
- Never clean the filters with harsh chemicals such as alcohol, chlorine, or oil-based products. Thus, can damage the filters and cause wear and tear faster.
- Clean the cabinet filters with warm water and mild liquid dish detergent (ex. Dawn soap). Allow it to dry completely before reinstalling.
- Inspect for fraying, crumbling, tears, and holes. Replace the filter if damage is found.
- Inspect monthly, environmental conditions may require more frequent inspections and cleaning.



PORTABLE OXYGEN CYLINDER (E-TANK)

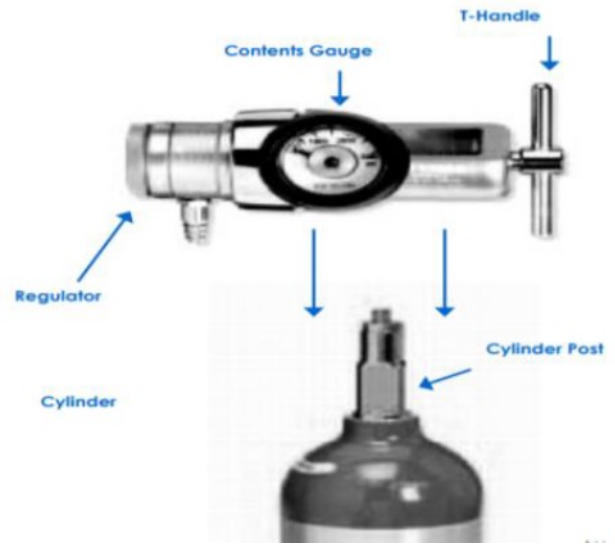
Proper Storing

- No smoking or open flames around oxygen cylinders
- Store in a well-ventilated area
- Keep clean and away from moisture and dust
- Protect from extreme temperatures
- Avoid dropping the cylinder and/or regulator. Store somewhere it can't fall, best to keep in a cart or a bag to avoid damage

Cleaning

- Regularly clean by wiping with a dry lint free cloth

IMPORTANT: Always have extra tanks for long trips or if electricity goes out in the home



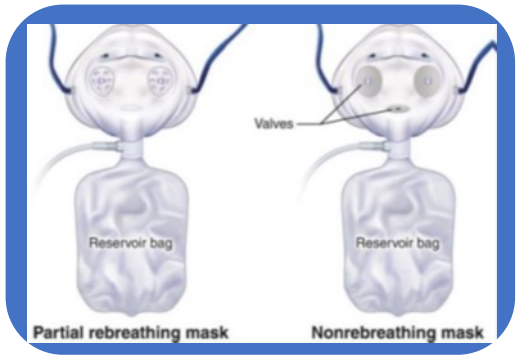
OXYGEN MASK AND ADAPTERS

Nasal Cannula Flow Rate: 0.25-6 LPM Sizes: Infant, Pediatric, Adult Humidification: Encouraged with children but not always needed

BiFlo Mask Flow Rate: 1-6 LPM Size: Pediatric (mouse nose), Adult (Clear) Humidification: Not needed Similar to nasal cannula without prongs

OxyMask Flow Rate: 1-15 LPM Size: Pediatric, Adult Humidification: Not needed

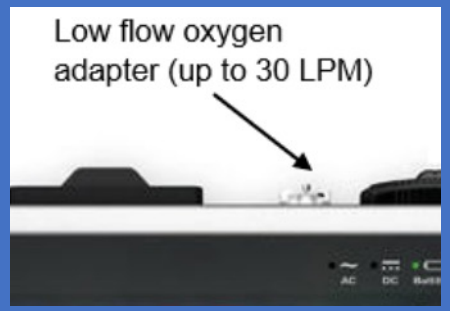
Simple Mask Flow Range: 6-10 LPM Sizes: Pediatric, Adult Humidification: Not needed



Nonrebreather/Partial rebreather Flow Range: 10-15 LPM Sizes: Pediatric, Adult Humidification: Not needed Nonrebreather both flaps are on mask, Partial rebreather only one flap is attached to mask other side open

OXYGEN MASK AND ADAPTERS

Face Tent Flow range: 5-10 LPM Size: pediatric, adult Humidification: not needed Higher flow ranges needed to flush out CO2



Ventilator adapter back of Machine Flow range: 1-15 LPM depends on ventilator type. Connect oxygen tubing to the ventilator adapter to oxygen source.

Ventilator adapter placed into the ventilator circuit. Flow range: 1-15 LPM, higher flows can mess with alarms and pressure within the circuit. Place adapter into ventilator circuit, attach o2 tubing to port and oxygen source.

High Humidity Trach collar adapter, placed into Corr tubing close to the patient. Flow range: 1-15 LPM Sometimes, patients need higher oxygen flow due to the dilution from powered air through the trach collar setup.

CHEST PHYSIOTHERAPY

- Chest Physiotherapy is multiple techniques that aid in loosening and mobilizing mucus out of the airways. Thus, is done by vest therapy, and hand chest therapy via a palm cup.

Vest Therapy

- Vest therapy, also known as High frequency chest way oscillation, is a machine that uses rapid burst of air to vibrate the chest wall. Thus, loosen mucus from the airway to be expelled via coughing or suctioning.
- Vest therapy provides therapy to all segments of the lungs at one time, it can be done sitting or lying down.

CHEST PHYSIOTHERAPY

Steps to perform:

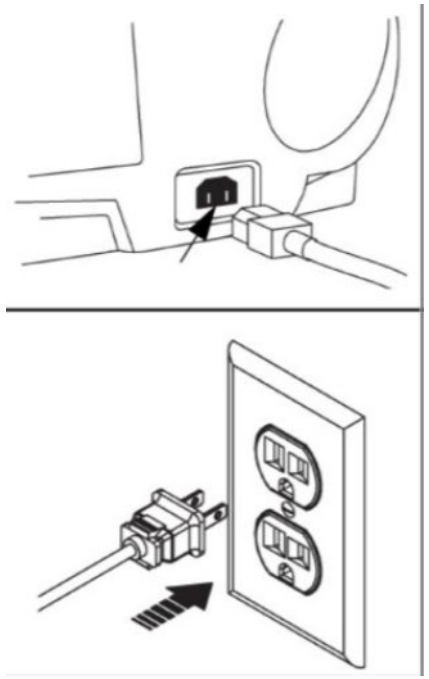
1.) Place your child in a comfortable position.

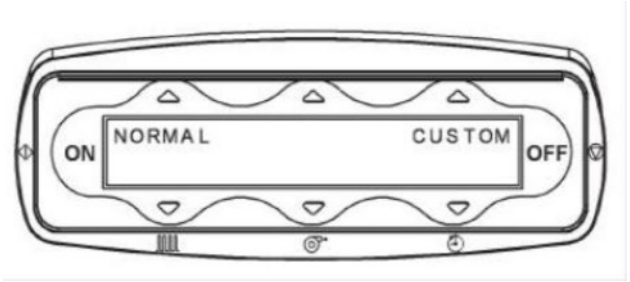
2.) Wrap the wrap vest or strap the full vest into place. Ensure the wrap is close to the underarms, all vests should be snug and comfortable, it should not restrict normal breathing.

3.) Plug the power cord into a grounded outlet, ensure power cord is secure on the back of the machine.

4.) Attach air hoses to the ports on the vest and machine.

5.) Press the ON button, then press UP arrow for normal standard mode.





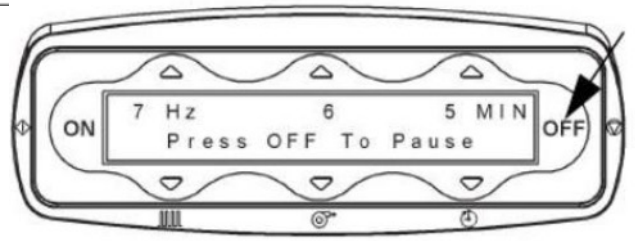
CHEST PHYSIOTHERAPY

6.) Confirm settings on the screen. If adjustments need to be made use the up and down arrows to set accordingly

7.) Press the ON button one time to inflate vest. Press ON again to begin oscillation.

8.) To pause the vest therapy, press the OFF button one time, when ready to resume press ON button.

9.) Once the vest completes the ordered amount of time, unplug the machine and carefully remove the inflatable vest.



***Monitor patient closely during entire vest therapy, if any abnormalities occur pause the machine and stabilize the patient before resuming. If problems with the machine occur contact the DME company, if there is a problem or concern with the patient contact family/ provider.

PALM CUP

A palm cup is a handheld device that percusses over one area at a time. Recommended for infants or children with areas that need to be avoided that the vest cannot.

To perform:

1.) Place your child in a comfortable position.

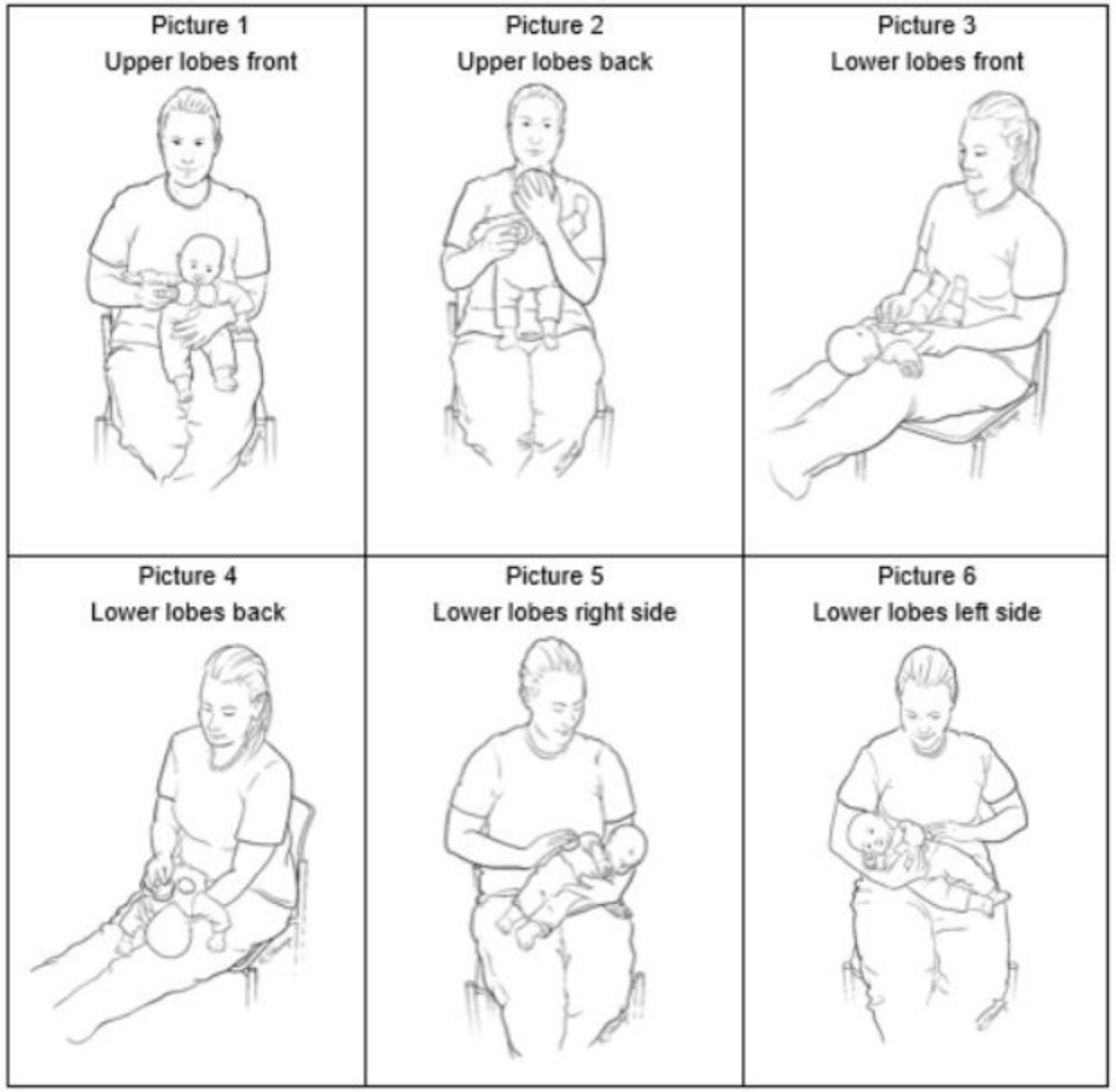
2.) Put a shirt on your child or place a cloth over the bare skin. Percussion should never be done on bare skin.

3.) Place palm cup in your hand. The knob should be placed in between your index and middle finger.

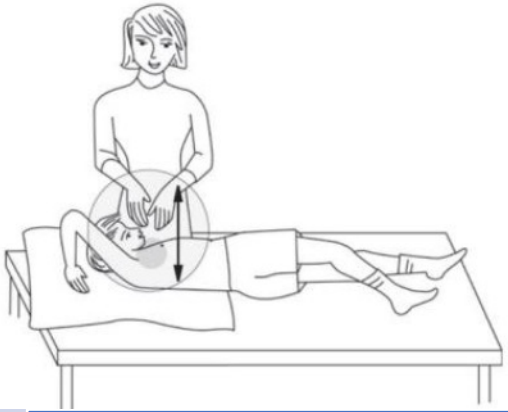
4.) Start percussing firmly over each area of the lungs, as shown below. Avoid the breastbone, collar bone, spine, lower ribs, and body organs. *Percussion done correctly does not hurt

5.) Percuss on each lobe 3-5 minutes, move your child to ensure all lobes receive therapy.

INFANT POSITIONING

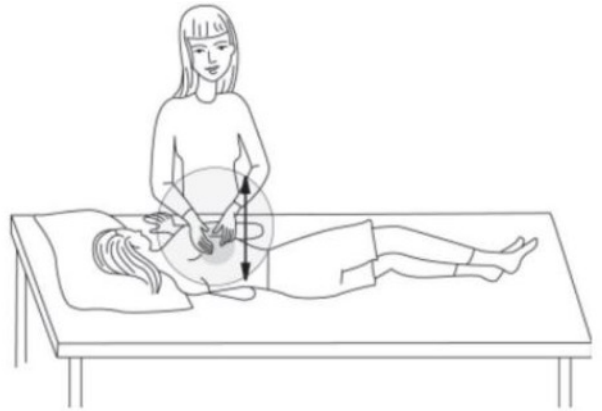


CHILDREN & ADULT POSITIONING

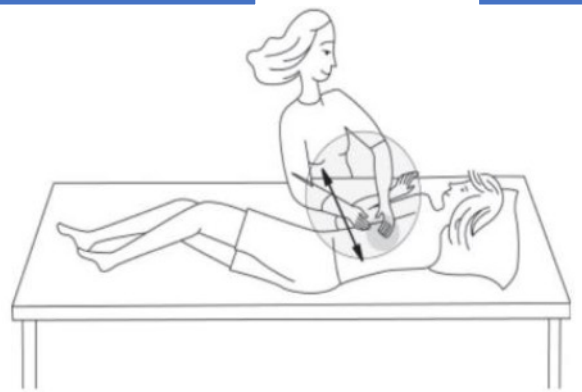


Right Front Lobe

Left Front Lobe



Left Back Lobe



Right Back Lobe

Back Lower Lobes

CHEST PHYSIOTHERAPY

Risk Factors

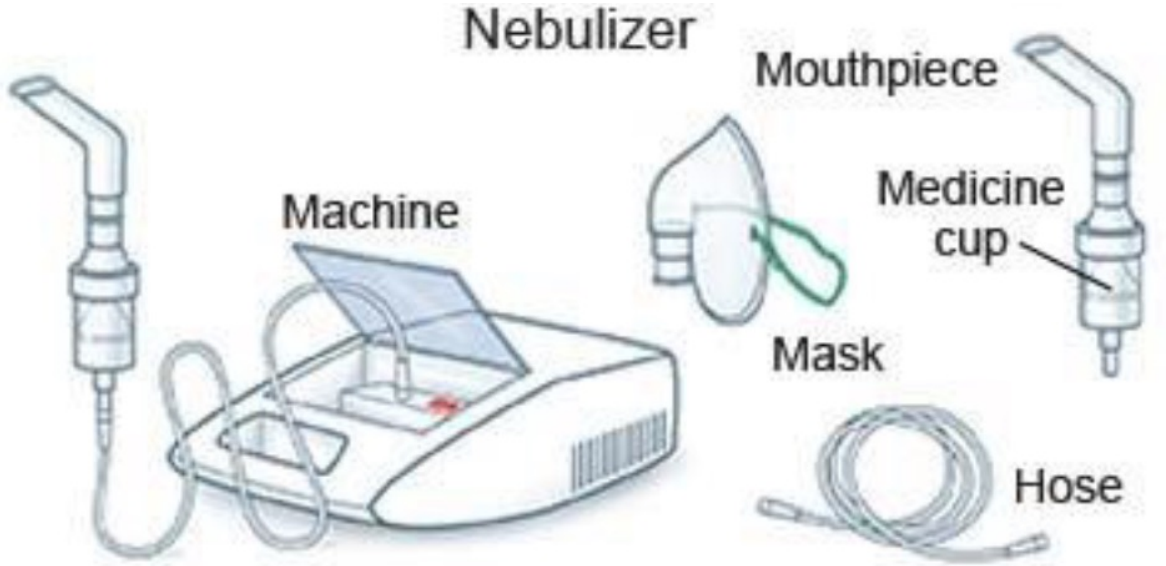
- Drop in oxygen saturation.
    - o Pause CPT machine and suction. If no change return your child to their preferred position and allow them to recover before continuing
- Pain or injury to ribs, muscles or spine
    - o If performing palm cup, avoid those areas and notify their doctor.
    - o If on the vest, ensure the wrap or vest is not too tight and/or talk to your doctor about potential settings adjustment
- Vomiting
    - o Pause feedings during CPT
    - o Perform before or 30mins after feeding
- Bleeding in the lungs
    - o Very rare, If occurred stop the vest and contact your doctor for further instructions.

Stop CPT and call your doctor if:

- Recent surgery or open wounds that could be affected by chest physiotherapy.
- Bleeding from the lungs
- Recent neck or head injury
- Recent fractures to the ribs or vertebrae

NEBULIZER

- A nebulizer is a device that turns liquid into a fine mist to easily be breathed into the lungs. Nebulizers can be used for any age range. It can be delivered by facemask, mouthpiece, tracheostomies, and ventilator patients.



COMMON RESPIRATORY MEDICATIONS DELIVERED BY NEBULIZER

- Albuterol- Rescue medication, Bronchodilator
  - o Side effects: jitteriness and increased heart rate
- Xopenex- Rescue Medication, Bronchodilator, less cardiac effect compared to albuterol.
  - o Side effects: jitteriness
- Sodium Chloride 3% & 7%- used to breakdown thick secretions.
  - o Side effects: Irritation to airway, give bronchodilator prior to prevent bronchospasm.
- Budesonide- Inhaled steroid, reduces inflammation in the airways. Must be used daily long term.
  - o Side effects: Thrush in mouth if not rinsed after administering.

NEBULIZER

Steps to perform

1.) Wash Hands

2.) Gather supplies: Nebulizer, compressor, medication, tubing, adapter attachment.

3.) Plug in the nebulizer compressor

4.) Attach tubing to the neb cup and the compressor

5.) Pour medication into the nebulizer cup, replace lid

6.) Depending on your child's needs perform one of the following

a. Place mask over the mouth and nose, secure the strap in place

b. Have your child make a tight seal with their lips around the mouthpiece

•

c. Place the nebulizer with T-piece adapter into the humidification corr tubing. Place as close to your child as you can.

d. Place the nebulizer into your child's ventilator circuit on the inspiratory side closest to them. If the patient has a single limb with an expiratory valve place closest to them prior to the exhalation valve.

NEBULIZER

7.) Turn on compressor, you will see a mist going to your child.

8.) Keep nebulizer upright, run until the neb starts sputtering and medication has evaporated in the nebulizer cup (10-15mins)

9.) Once finished turn off compressor and remove nebulizer.

10.) Rinse nebulizer cup after each use with distilled water and allow to air dry. At the end of the day soak the nebulizer cup in warm soapy water and allow to dry.

11.) Rinse/wash your child’s mouth if performed facemask/mouthpiece.

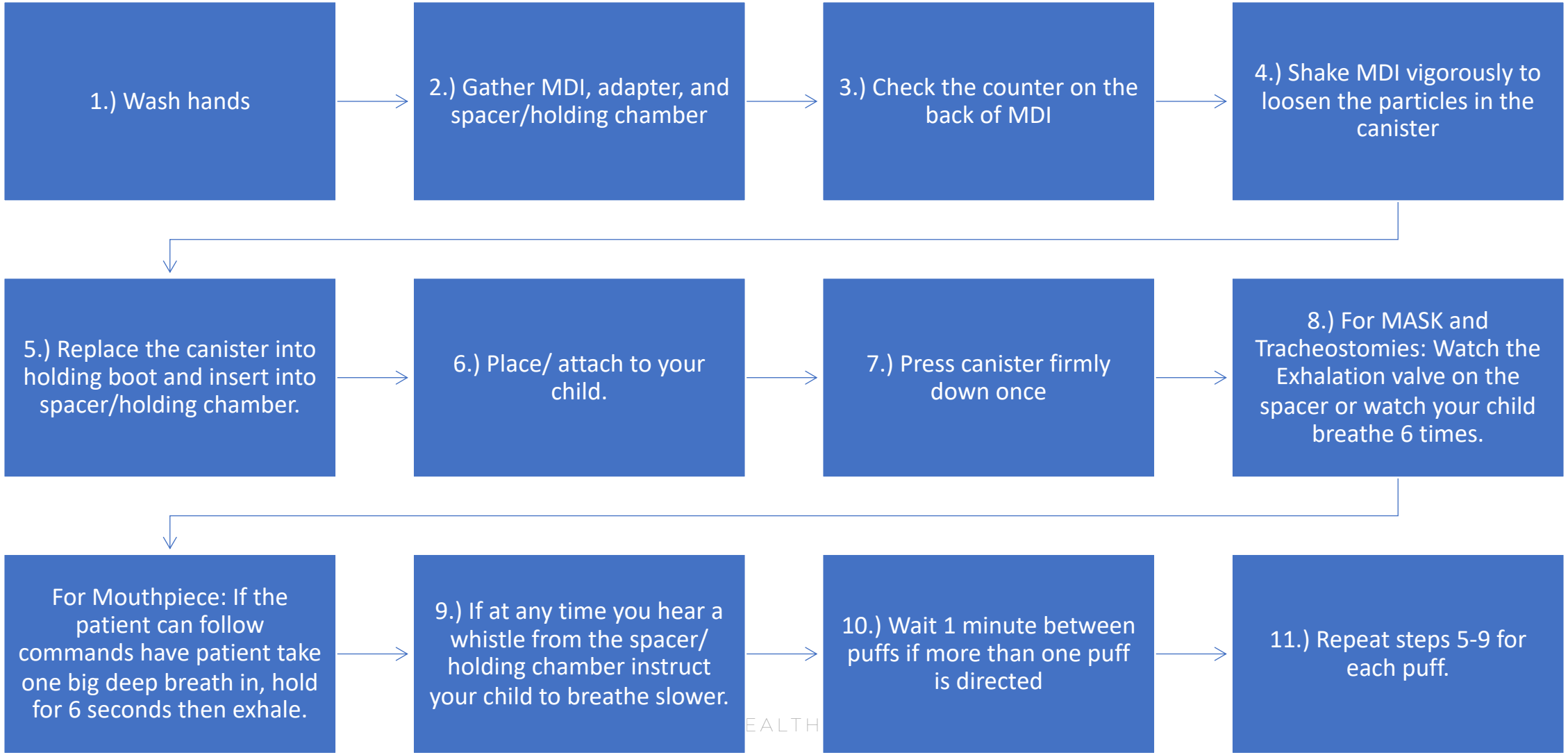
METER DOSE INHALER (MDI)

- Meter Dose Inhaler (MDI) is a pressurized canister that contains medication. The medication is expelled into a fine mist that can be breathed into the lungs. Depending on the inhaler used, it can be important to have a space/holding chamber. These devices help direct medication into the lungs instead of lining the back of the throat and swallowed into the stomach. MDI with a spacer can be delivered via mouthpiece, mask, or tracheostomy. MDIs can be delivered to a ventilator dependent patient with an MDI adapter.

PRIMING

- New MDIs or MDIs that have not been used in awhile need to be PRIMED. Priming removes debris that could be blocking the actuator and ensures the correct amount of medication is delivered in each puff. To prime an MDI, shake the canister, then depress the canister into the air releasing a spray. Repeat this 4 times for new MDIs and 2 times for an MDI that has not been used in a while.

STEPS TO PERFORM MDI WITH SPACER/ HOLDING CHAMBER VIA MOUTHPIECE, FACEMASK. AND TRACHEOSTOMY:



Mouthpiece

Facemask

Tracheostomy

STEPS TO PERFORM MDI WITH ADAPTER FOR VENTILATORS

1.) Wash hands

2.) Gather MDI and ventilator adapter

3.) Check the counter on the back of the MDI

4.) Add MDI adapter into the ventilator circuit on the inspiratory side closest to your child.

5.) Shake the MDI vigorously to loosen the particles in the canister

6.) Place the MDI Canister onto the Ventilator adapter

7.) When your child inhales press canister firmly down to actuate a breath, watch for a fine mist in the circuit to be delivered to your child

8.) Wait one minute before giving another puff if indicated

9.) Repeat steps 6-8 for each puff

CLEANING THE SPACER/ HOLDING CHAMBER (WEEKLY CLEANING OR BEFORE IF SOILED)

01

1.) Disassemble the device, take off all attachments.

02

2.) Soak for 10 minutes in warm soapy water

03

3.) Rinse the pieces and air dry completely.

04

4.) Reassemble and store in a clean dry place

SUCTIONING

- Suctioning should be performed if your child cannot clear their own airway. All techniques below will aid in clearing the airway for your child.

How to know when to suction:

- If your child has the inability to clear their own airways
- After you perform respiratory treatments
- Visible secretions in the airway
- Feeling vibrations on their chest
- If suspected aspiration of gastric or upper airway secretions
- Showing signs of respiratory distress

STEPS TO PERFORM ORAL SUCTIONING

1.) Check plan of care

2.) Wash hands

3.) Gather Supplies (suction machine, suction tubing, yanker, & washcloth)

4.) Turn on the suction machine.

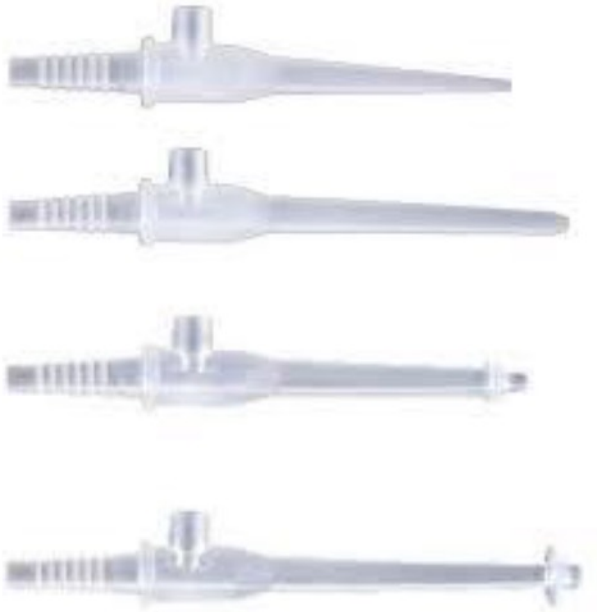
5.) Attach yanker to the end of the suction tubing.

6.) Place into patients' oral cavity and gently suction in all directions.

7.) When clear, rinse the yanker with water & wipe with washcloth

- a. To avoid infections, clean the yanker daily and replace it with a new one often.

STEPS TO PERFORM NASAL SUCTIONING



Steps to perform Nasal Suctioning:

1.) Check plan of care

2.) Wash hands

3.) Gather Supplies (Suction machine, suction tubing, nasal aspirator, & saline)

4.) Turn on the suction machine.

5.) Attach nasal aspirator to the end of the suction tubing.

6.) Close the suction port and suction each nostril.

- a. If needed, spray or drop some saline into each nostril prior to suctioning to aid in thick mucus removal.
- b. If needed, perform saline lavage by tilting the patient's head down and to the side, squeeze saline into one nostril while continuously suctioning the other nostril.

7.) When clear, clean nasal aspirator

- a. To avoid infections, clean the nasal aspirator daily and replace it with a new one often.

TRACHEOSTOMY SUCTIONING

- Tracheostomy Suctioning: Tracheostomy suctioning is the process of invasive suctioning to help clear the airways for your tracheostomy child. There are two ways of suctioning Inline and sterile suctioning.

Choosing the correct size catheter based on their tracheostomy size

Inner diameter (I.D. number) size on tracheostomy	Suction Catheter Size
8.0mm-9.5mm	14FR
5.0mm-7.0mm	10FR
4.0mm-4.5mm	8FR
2.5mm-3.5mm	6FR

STEPS TO PERFORM STERILE SUCTIONING

1.) Gather supplies: sterile suction kit, portable suction machine, and sterile water

2.) Wash hands

3.) Turn on suction machine

4.) Open suction catheter kit with sterile technique.

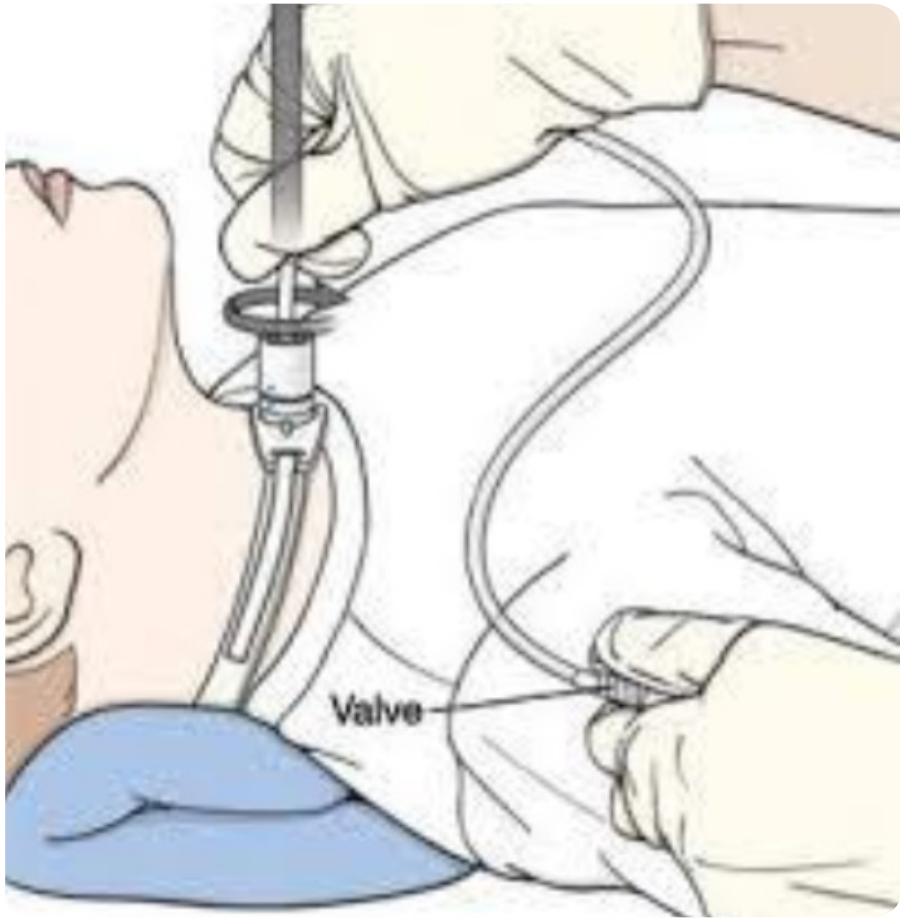
    a. Sterile technique: Grap the first glove by the wrist on the folded part. Put the glove onto your hand only by holding on to the folded part. If you touch the glove anywhere else this is breaking sterile field. Once the first glove is on, grab the second glove under the folded part. The sterile glove that is on should then touch the sterile glove you are about to put on. After the gloves are on, determine which hand is going to suction, keep this hand completely sterile. DO NOT touch anything but the sterile catheter.

5.) With the other hand grab the suction tubing that leads to the portable suction machine. Connect the tubing to the end of the sterile catheter

6.) Before inserting the catheter inside the trach, find the appropriate suction number. Insert the catheter to that number

7.) Hold the suction port closed as you suction out of the tracheostomy

8.) Repeat steps 6 & 7, as needed. Be sure to allow your child to recover after each suction pass.



STERILE SUCTION

9.) Make sure to never leave the suction catheter in their airway more than 5 secs. This can cause your child to desat or show distress due to the catheter obstructing their airway

10.) Once your child's airway is clear disconnect suction tubing and discard, rinse your suction tubing with sterile water

11.) Turn off suction machine

STEPS TO PERFORM INLINE SUCTIONING WITH VENTILATOR

The plastic sleeve that surrounds the catheter allows the suction catheter to stay sterile in a closed system to avoid contamination.

1.) Gather supplies: Gloves, saline bullet, suction machine

2.) Wash hands, then put gloves on

3.) Turn on portable suction machine

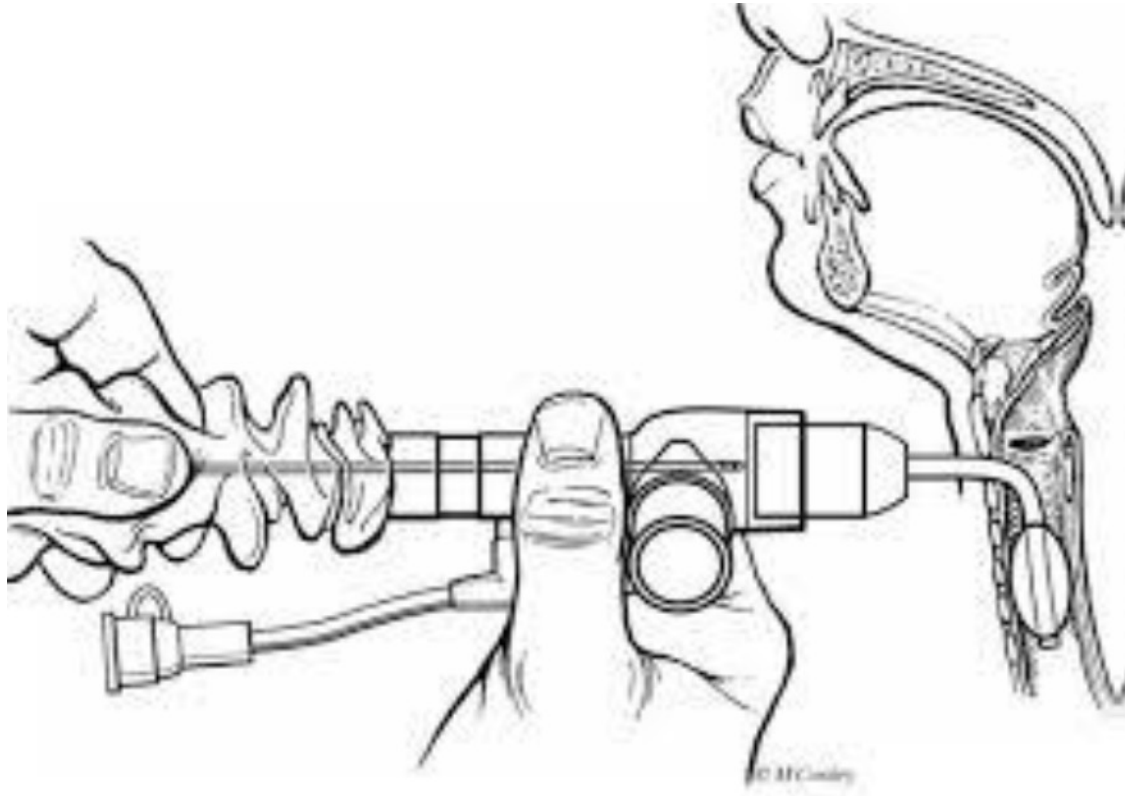
4.) Attach suction tubing to the end of the inline suction.

5.) Insert the catheter to the appropriate number inside the trach.

6.) Depress the thumb valve, this will begin suctioning. Pull the catheter out slowly while holding the thumb valve down. Do not exceed 5 seconds in the airway.

7.) Repeat steps 5 & 6, until your child is cleared. Be sure to allow recovery breaks in between each suction pass.

8.) Once finished, flush the suction catheter with a saline bullet. Place saline bullet into the irrigation port. Before squeezing the saline bullet be sure to continuously depress the thumb valve, this will avoid saline going down into the tracheostomy.



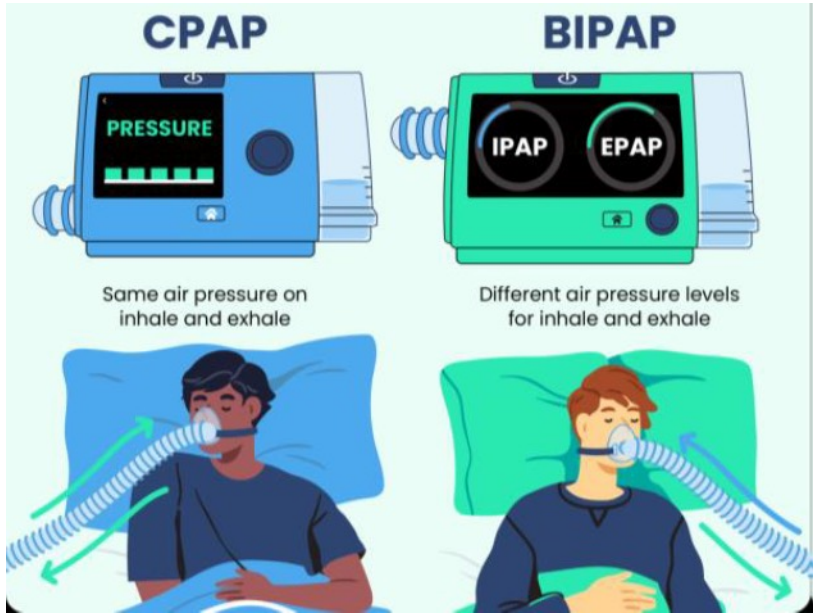
NONINVASIVE VENTILATION CPAP VS BIPAP

- CPAP and BIPAP are both positive airway pressure. Positive airway pressure helps maintain lung volumes and oxygenation at alveolar level. Supports elasticity of the chest wall which decreases breathing effort and the use of accessory muscles. Positive airway pressure also helps maintain a patent airway. However, CPAP and BIPAP are different in the way they work and which diagnosis or disease process will benefit.

CPAP/BIPAP

CPAP- Continuous Positive airway pressure

- Constant set pressure throughout all phases of respiration
- Helps maintain open upper airway



BIPAP- Bilevel positive airway pressure

- Uses two pressures, IPAP for inspiratory phase, and EPAP for Expiratory phase
- Often back-up rate is set
- Settings
  - IPAP- Inspiratory positive airway pressure
- Inhalation pressure to obtain tidal volume
  - EPAP- Expiratory positive airway pressure
- The lowest pressure during exhalation is maintained in the airways to improve oxygenation and prevent collapsing of alveoli.
  - Respiratory rate
- Set to maintain a certain minimum of breaths per minute

NONINVASIVE MASKS

- Face mask
  - Two types: full face mask (which surrounds the whole face) and Regular face mask that only covers the nose and mouth
- Nasal mask
  - Only covers the nose
- Nasal pillows
  - Soft mask with prongs that cover the nostrils

Full face mask Oronasal Mask Nasal Mask Nasal Pillow

IMPORTANT NOTES

Never block the exhalation valve on the mask or within the circuit. Blocking the exhalation valve can cause Carbon Dioxide to increase.

Always ensure the mask has a proper seal, if redness on the face occurs place a bandage or barrier on the face prior to placing it on the mask to prevent a pressure ulcer.

Oxygen will either bleed into the circuit or be attached to the device (depending on model). Be sure to make sure the oxygen tubing is not kinked.

Cleaning of the device and equipment is necessary to avoid bacterial growth. CPAP and BIPAP equipment is usually not provided often by the DME companies so its important to clean daily/weekly.

If anything breaks or has a crack call the DME company to get the piece replaced. For cleaning instructions: reference education handout on the device.

BASIC VENTILATOR EDUCATION

- There are many different home ventilators that could be in the home, its important for you to educate yourself on your child's ventilator. Ask your care team for specific details regarding your child's ventilator and their settings. Below are common alarms, maintenance, and some ways to troubleshoot a ventilator.

SETTINGS

a. Mode:

i. Assist-control Ventilation (A/C): Control mode. All breaths are controlled by the ventilator. If the patient tries to breathe over the ventilator, it will force the patient to stay within the settings. Thus, can be uncomfortable if the patient is not sedated, or has a respiratory drive.

ii. Synchronized intermittent mandatory ventilation (SIMV) is a weaning mode. The patient receives a set number of mandatory breaths and volumes but can breathe spontaneously over that rate with the help of pressure support.

iii. Pressure Support (PS) is a weaning mode, the patient is breathing spontaneously with minimal support by the ventilator.

b. Tidal Volume or Pressure control

i. Tidal Volume is a preset volume the ventilator will deliver with every breath.

ii. Pressure control is a preset pressure the ventilator will deliver with every breath.

iii. Depending on the patient's diagnosis the physician will determine if volume or pressure is used.

c. PEEP: positive end-expiratory pressure is pressure left in the lungs at the end of expiration to prevent the closure of alveoli and allow increased time for oxygen exchange.

d. Pressure support (PS): amount of pressure delivered during a patient's spontaneous breath. Helps the patient breathe easier through the ventilator tubing.

e. Inspiratory Time (Ti) Max/Min: Amount of time the ventilator will give during a full inspiration.

f. Trigger: Determines the sensitivity of the circuit and ventilator to deliver a breath when the patient initiates a spontaneous breath.

ALARMS

Low battery	-Replace battery with a charged battery -Plug the ventilator into a power source **Home ventilators are equipped with a battery to allow the patient freedom to move around. Some have a built-in battery others have a battery that is attached to the ventilator. Battery life depends on the runtime and how old the ventilator is. It's important to always bring an extra battery, power cord, or car charger when you travel to prevent a power issue.**
Apnea	The patient has stopped breathing, check the patient.
Disconnection alarm Disc/Sens	• Check the patient's airway. Bag the patient if necessary. • Inspect the circuit and proximal lines for disconnection, excessive leak, or water/secretions in lines
Low Leak	• Obstruction with exhalation port • Small leak in the circuit
High MVe/ Vte (Minute Ventilation/ Tidal Volume)	• Check patient status • Inspect the expiratory valve. If necessary, replace the expiratory valve • Drain excess water in the circuit

ALARMS

High PEEP	• Inspect the circuit, pressure lines, and expiratory valve for obstruction. Bag patient, shake circuit or blow lines with air if needed • Drain excess water in circuit
High Pressure	• Check the patient's status and airway. • Suction patient if needed, if unable to pass suction catheter, change trach • Inspect circuit for obstruction. Bag patient, shake circuit or blow lines with air if needed
High Respiratory Rate	• Check the patient's status and airway • Drain excess water in the circuit • Suction patient if needed • Check circuit for leaks
Low MVi / Vte (MinVen/ Tidal Volume)	• Check the patient's status and airway • Inspect the circuit and the expiratory valve for obstruction or leaks
Low pressure/ Low PEEP	• Check all circuit connections for leak • Inspect the circuit and expiratory valve for damage or secretions
Obstruction	• Check the patient's status and airway • Inspect the circuit and the expiratory valve for obstruction

MAINTENENCE

- Distilled/ Sterile water only for humidification system
- Never pour water in the ventilator tubing back into the humidification system, Dump all excess water out into a bucket and discard. This is to prevent bacteria growth within the heated environment.
- Ventilator circuit, filters, humidification system, and adapters should be replaced weekly to every other week to lower infection risk. Some adapters can be cleaned with soap and water.
- Inspect the ventilator filters every 3-6 months. These filters are located on the ventilator, they help keep the longevity of the ventilator and to prevent anything from coming into the ventilator tubing to the child.
- Always have an Ambu bag and a backup ventilator handy in case the main ventilator shuts off or is showing error codes.

NEUROLOGICAL TRAINING

NEUROLOGICAL INVOLVES THE BRAIN, NERVES AND THE NERVOUS SYSTEM.

STIMULATION

- Children learn through their senses of taste, smell, sight, touch, and hearing.
- No two children are alike.
- Some children have sensory impairment and do not respond to sound, touch, texture, and taste as other people do.
- Some children can become overstimulated
- What does that look like?
    - Covering ears or eyes
    - Restless or cranky
    - Crying or a meltdown
    - Difficulty sleeping
    - Loud noises/loud rooms
    - Cannot focus or follow simple directions
    - Anxiety
    - Rocking & Repetitive activities

- How can I calm a child who is overstimulated?
    - Lower the noise in the room
    - Move the child to a quieter room
    - Dim the lights
    - Play soft music that is soothing
    - Provide a favorite blanket or toy to the child to hold onto.
    - Stay calm – do not raise your voice. Children know and can sense when you are tense or frustrated.
    - Reassure the child they are safe, and you are there to help them.
    - Be open and honest with the child.

SEIZURES

- Some children have Epilepsy, or seizures.
- About 1 in 10 people in the United States have a seizure in their lifetime.
- The doctor, physician’s assistant, or nurse practitioner will diagnose Epilepsy.

WHAT DO SEIZURES LOOK LIKE?

When a person has a generalized seizure, they may:

- The child may fall if they lose muscle tone or consciousness.
- Shaking or jerking – this could be one limb or all over.
- Twitch in body or eyelids.
- The child may stare into the room, and you cannot get their attention
- Eye rolling
- Become unaware of what's around them.
- Loss of bowels or bladder control.
- Being sleepy and not acting like their baseline self after the seizure.
- The child can yell, laugh, or make sounds; this is called vocalizations.
- Seizures may be scary; this is something to note in the child's record and talk with the RN or LPN and parent about how to handle the seizures.

What can trigger a seizure?

- Low or very high blood sugar
- Flashing or flickering lights
- Heat illness
- High fever
- Lack of sleep
- Stress
- Genetic factors
- Brain abnormalities
- Head injuries

WHAT IS THE BEST WAY TO HELP THE CHILD WHO MAY HAVE A SEIZURE DISORDER?

- Understand the child's medication schedule and do not skip medications, unless you are told to do so by the provider.
- Learn the child's behaviors and you will identify warning signs of when the child may have a seizure.
- Know when to give any rescue medications – this will be on the medication administration record (MAR) and the plan of care (POC).

WHAT TO DO WHEN THE CHILD IS HAVING A SEIZURE

- Follow the plan of care (POC) orders.
- Note the time that seizure begins and ends.
- Lay the child on the ground, flat surface.
- Only move the child if they are in a dangerous place.
- Turn your child on their side.
- Clear the area of harmful objects and remove eyeglasses.
- Do not restrain the child.
- Do not put anything in your child's mouth.
- Children usually have shallow breathing during seizures. If their breathing becomes noisy (gasping), lift their chin upwards and tilt the head back.
- After seizure stops, allow the child to rest. Your child may be very sleepy after a seizure.
- If your child is not breathing after a seizure stops, call 911 and start CPR.
- At 5 minutes the child will likely need rescue medication to stop the seizure.
    - Follow the orders on the Plan of Care (POC) for rescue medications.
- Closely watch your child after a seizure to make sure they don't have another seizure.

- What happens if your child has never had a seizure, and you notice that they are having seizure activities?

Call 911 and activate the emergency system. Your child needs to be seen immediately.

After the child is attended to by 911, or goes to the hospital, call and let the PDN Agency RN Case Manager know that the child's status has changed.

WHAT DO I DOCUMENT WHEN MY CHILD HAS A SEIZURE OR SEIZURE LIKE ACTIVITY?

1. The time the seizure activity started.

2. The time the seizure stopped.

3. Any symptoms like jerking or eye rolling that you saw during the seizure. Medical terms do not matter, it is the description and what you did, that matters.

4. Did you have to give any rescue medications?

5. Anything that the provider specifically ordered concerning the child's seizure.

If you notice an increase in the number of seizures, you may need to call the Nurse Case Manager with the home health agency and the doctor's office for the child to be seen or for the child to have medication adjustments.

NUTRITION & HYDRATION

HOW TO GIVE IT, MEASURE IT, AND KNOW WHEN SOMETHING IS WRONG.

HOW NUTRITION AND HYDRATION IS GIVEN:

- Oral (PO)
- Orogastric (OG Tube)
- Nasogastric (NG)
- Gastrostomy (G Tube)
- Gastrojejunostomy Tube (GJ Tube)
- Percutaneous Endoscopic Gastrostomy (PEG Tube)
- Total Parental Nutrition (TPN)

TO GIVE NUTRITION & HYDRATION, YOU NEED:

Doctor Order

Food: Formula, food pouches, iv (TPN/Lipids), home grown, store bought.

Supplies: OG or NG tube, Feeding Pump, Feeding bags, Tube extension, Syringes, Water, Measuring

Cup, Utensils

ORAL FEEDINGS

Aspiration Prevention: Positioning the patient upright while eating. Thickening liquids if ordered. Feeding small amounts. Using a “slow feed” bottle nipple.

Monitoring for choking.

Pleasure Feeds: Licks and tastes as ordered by a therapist or physician.

Check for residual, if ordered to do so, by using a syringe and pulling back to see how much nutrition and hydration has not yet digested. An order may state to reduce or hold a feeding if residual is > _____.

Always check placement of an NG or OG tube by looking at the lines or numbers on the tube to see if it is has moved since it was placed.

When feeding to gravity, the higher you raise the feeding, the faster it will go. The lower the feeding, the slower it will go. Monitor for tolerance if feeding fast.

If the feeding and hydration is ordered to be given using a pump, calculate the rate with your supervisor.

Ex. 120mls of food is to go over 1 hour and 30min, therefore the pump rate will be 180ml/hr.

Always end a feeding or medication administration with water to prevent clogging the feeding route. Most of the time there will be an order for how much water is to be given. Too much water can be a bad thing.

To vent a G or GJ tube, keep the extension connected and the end of it opened so that gas can come out.

Some food may come out, so wrap a diaper around it to avoid leakage onto clothes and bedding.

Discard tubing and bag after 24hours

Know how long the food can be at room temperature. If the patient is on a continuous feed, you cannot pour the entire day's worth into the bag all at once or it will expire.

TUBE FEEDINGS

SKIN CARE FOR FEEDING SITE

Oral Care: teeth brushing or toothette swab, moisturizing mouth and lips

G/GJ/PEG tube site: Wash daily with warm soapy water. Apply a split gauze if there is drainage or leakage. Report any redness to your supervisor.

NG/OG: Monitor skin breakdown under and around the tape that holds the tube in place. Replace tape, if needed, without changing the position of the tube.

INTAKE AND OUTPUT (I'S AND O'S)

- Intake: The amount a patient eats or drinks (Include all routes: OG, oral, G tube, etc…)
- Output: The amount a patient urinates, stools or vomits. It can be measured by exact amount or occurrences (Example: Stool at 3pm can be measured as 1 stool, or a diaper with stool in it could be weighed on a scale).
- Why measure I's and O's:
  - To monitor if a patient begins taking in less nutrition or hydration, which can lead to malnutrition or dehydration, along with other possible issues.
  - To monitor if a patient is peeing or pooping less, which could mean they are retaining fluid or constipated, along with other possible issues.
  - *Do you have doctor orders to monitor and report I's and O's???

GENITOURINARY TRAINING

INCONTINENCE CARE

Incontinence care involves managing urinary or bowel incontinence to improve comfort and quality of life. Here are some key aspects:

Medical Treatment: Depending on the type of incontinence, treatments will vary, it is important to know the child's plan of care.

Products & Supplies: Absorbent pads, diapers, and wipes are provided by SoonerCare and SoonerSelect with prior authorization.

Changing undergarments and linens will be hands on training.

CATHETERIZATION CARE

Catheterization care is important to prevent infections and make sure that the child is comfortable.

Daily Care

- Cleaning: Wash the catheter and surrounding area with mild soap and water twice a day.
- Hand Hygiene: Always wash your hands before and after handling the catheter.
- Drainage Bag Maintenance: Change the drainage bag in the morning and at night and clean it daily.

Preventing Infections

- Hydration: Drink plenty of fluids to keep urine flowing and reduce the risk of blockages.
- Proper Positioning: Keep the drainage bag below bladder level to prevent backflow.
- Monitoring for Issues: Watch for signs of infection like redness, swelling, or unusual discharge.

Catheterization care will be hands on training.

INTEGUMENTARY TRAINING

AFOS OR BRACES

Ankle Foot Orthosis (AFOs) are custom made braces that help support and give a child a stable ankle and foot.

AFOs are typically prescribed for some of the following reasons:

1. Help with ankle and foot alignment
2. Increase mobility and independence
3. Provide stability
4. Prevent deformity from occurring or worsening
5. Reduce potential pain that can be associated with deformities or gait impairments
6. Manage muscle tone and/or spasticity
7. Help reduce toe walking

Your child will wear the AFOs, or braces as prescribed by their Physical Therapist or Occupational Therapist.

1. There will be an order on the Plan of Care (POC) letting you know when to put them on, how long to keep them on, and when to take them off the child.

What do I document about AFOs or braces?

1. If the child's skin looked intact before you apply the braces
2. The time that the AFOs or braces are put on.
3. The time that the AFOs or braces are removed.
4. Any irritability with the child when the AFOs or braces are put on.
5. Once you take off the AFOs or braces what does the child's skin look like?
   - Are there any red spots or blisters?
   - Or is the skin soft and no marks or blisters?

APPROPRIATE BODY MECHANICS (LIFTING)

- Body mechanics is the study of how to perform movements in the safest, most efficient way possible. It involves understanding the mechanics of the musculoskeletal system and the principles that govern safe and effective movement.

- It involves learning how to maintain proper alignment, use your leg and core muscles, keep the load close to your body, use proper equipment, and practice good posture.

- By understanding and using the principles of body mechanics, individuals can improve their movement patterns and reduce the risk of injury.

Maintain Proper Alignment –

The first principle of body mechanics is to maintain proper alignment.

Keep your body in a neutral position where all your joints are stacked on top of each other.

For example, when standing, your ears, shoulders, hips, knees, and ankles should all be in a straight line.

be When sitting, your feet should flat on the ground, and your back should be straight. Maintaining proper alignment reduces the stress on your joints, muscles, and ligaments and improves your overall balance and stability

BODY MECHANICS

Bend at the Hips and Knees

When lifting heavy objects, the second principle of body mechanics is to bend at the hips and knees.

This means keeping your back straight and hinging at the hips and knees to lower your body down to the object.

By doing this, you reduce the strain on your lower back and engage your leg muscles to help you lift the object. It is important to avoid bending at the waist, which puts pressure on your back and can lead to injury

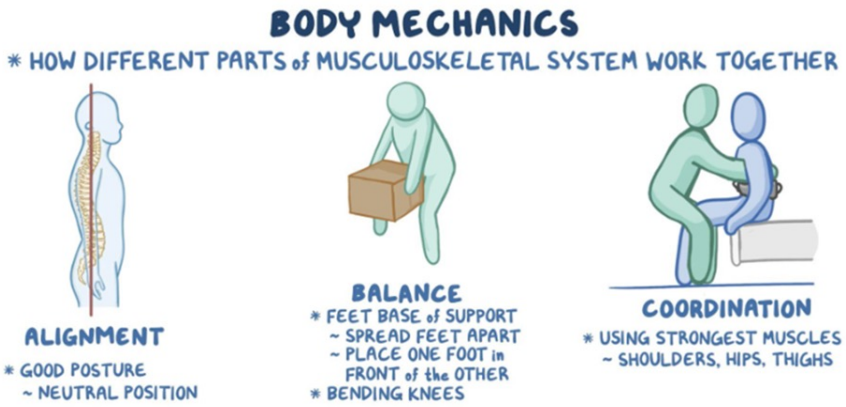
Keep the Load Close to Your Body

The third principle of body mechanics is to keep the load close to your body. When carrying or lifting objects, it is essential to keep the load as close to your center of gravity as possible. This reduces the strain on your back and helps you maintain your balance. Additionally, it is essential to avoid twisting your body while carrying or lifting objects, as this can cause injury to your back and spine.

BODY MECHANICS

Use Your Leg Muscles

- The fourth principle of body mechanics is to use your leg muscles when lifting or carrying objects. The muscles in your legs are much stronger than the muscles in your back, so engaging them helps to reduce the strain on your back and prevent injury. When lifting heavy objects, it is important to squat down, engage your leg muscles, and use your legs to lift the object.



BODY MECHANICS

o Avoid Repetitive Motions

Repeating the same motion over and over again can cause strain and injury to your muscles and joints.

If you must perform repetitive motions, it is essential to take frequent breaks and stretch your muscles to prevent injury.

O Use Proper Equipment

If you are performing manual labor, it is essential to use tools and equipment that are designed to reduce the strain on your body.

O Practice Good Posture

Maintaining good posture helps to reduce the strain on your back and neck and improve your overall balance and stability.

When sitting, it is important to keep your feet flat on the ground and your back straight.

When standing, your shoulders should be relaxed, and your ears should be over your shoulders.

O Use Your Core Muscles

Your core muscles are the muscles that support your spine and help to maintain proper alignment.

By engaging your core muscles, you can reduce the strain on your back and improve your balance and stability.

HOYER LIFTS

To use a Hoyer lift to transfer a patient, you need to:

Raise the bed and slide a sling under the patient.

2. Chains connect the pad to the lift frame. Lower the bed before lifting the patient.

3. The individual is raised using controls or the hand pump. Follow device instructions for proper positioning.

4. Use gentle hands-on pressure to guide patient as you slowly move lift toward receiving surface.

5. Slowly lower patient toward receiving surface.

6. Move patient’s body into correct position on receiving surface before releasing patient’s weight.

7. Release patient’s weight. Do not let sling bar hit patient.

PERSONAL CARE SUCH AS BATHING, TOILETING, ADLS/IADLS

IADL	ADL
Managing finance	Walking
Managing transportation	Feeding
Shopping and meal preparation	Toileting
House cleaning and home maintenance	Transferring
Managing communication	Bathing
Managing medicaitons	Dressing

- ADLs, or activities of daily living, are the most basic tasks a person does in their day-to-day life.
- IADLs, or instrumental activities of daily living, are more complex tasks that are generally a part of day-to-day life. These aren't as critical as walking or eating, but they still play a significant role in a person's quality of life.

OSTOMY CARE

Ostomy care is important for maintaining skin health and ensuring comfort and reduce skin and site irritation. Here are some key aspects of ostomy care:

• Always review the orders that are listed on the care plan.

• Skin Protection: The skin around the stoma should remain healthy. Using the right size pouch and skin barrier opening is crucial to prevent irritation.

• Pouching System Maintenance: Change the pouching system regularly to avoid leaks and skin irritation. Removing the skin barrier gently can help prevent damage.

• Cleaning the Stoma Area: Clean the skin around the stoma with water and dry it completely before applying a new pouch.

• Types of Ostomies: There are different types of ostomies, including colostomy, ileostomy, and urostomy, depending on which part of the digestive or urinary system is affected.

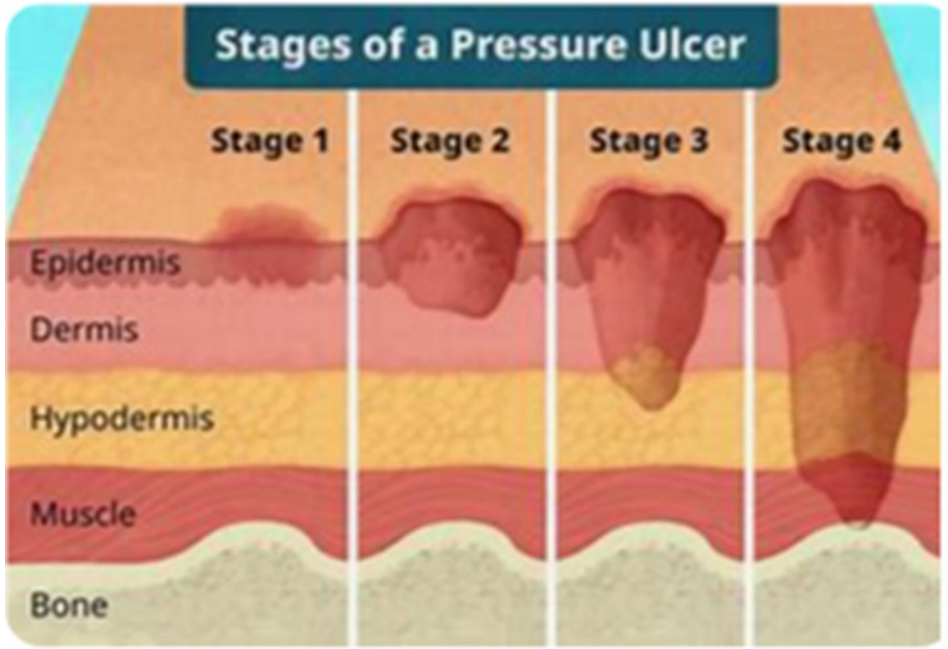
- Nursing Support: If you become concerned about the site, it is important to let the RN Case Manager know.
- What you should document -
  - O What does the site look like?
  - O When you change the bag.
  - O Any ointments or medications applied.
  - O If the skin around the site looks red or inflamed or different than it has been, it is important to let the RN Case Manager know this. This may need to be called into the provider.

SAFE SLEEP

- Place infants on their backs for sleep.
    1. Do not use positioners.
- Use a crib, bassinet, or portable play yard with a firm, flat mattress and a fitted sheet.
- Avoid sleeping on a couch or armchair.
- Do not share a bed with your baby or child.
- Share your room instead of your bed with your baby or child.
- Use correct bedding.
- Put your baby in other positions while they are awake.
- Do not use sitting devices for routine sleep.· Make sure your baby or child does not get overheated when sleeping.
- Resources for safe sleeping materials –
    - Homepage | Safe to Sleep
    - Safe Sleep - English Rev 4-2024.pdf
    - www.AAP.org

SKIN CARE

- Your care plays an important role in making sure that the member has proper skin care. Especially for those children who may have limited mobility. Here are some key areas to know:



SKIN CARE

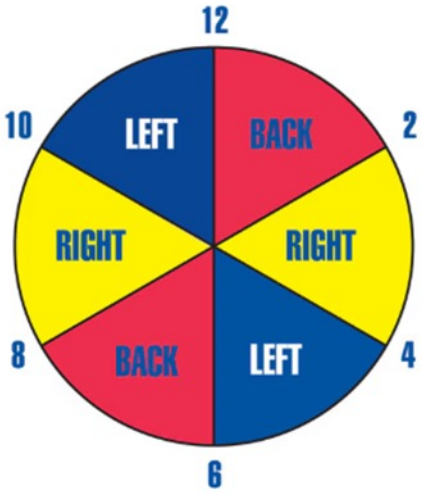
- Routine Skin Care: Keeping the skin clean and moisturized helps prevent dryness and irritation. Using gentle cleansers and fragrance-free lotions can be beneficial.
- Preventing Pressure Ulcers: Regular repositioning of clients, using cushions or specialized mattresses, and ensuring proper hydration can help prevent pressure sores.
- Observing and Reporting: You should monitor the skin for any signs of redness, irritation, or wounds and report concerns to healthcare professionals.

- Specialized Skin Care: Some members may require additional care for conditions like stasis dermatitis or pressure ulcers. Specific training for these will be provided by the PDN agency and LPN or RN Supervisor.
- Bathing and Grooming: Proper bathing techniques, including using assistive devices like shower chairs, can help maintain hygiene while ensuring comfort
- For bed bound patients – turning or repositioning them at least every 2 hours is important

Back

Right side

Left side



OKLAHOMA
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GET IN TOUCH

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