Community Health Nursing Department

Community Health Nursing Procedures Book For Fourth Year Nursing Students

2023-2024

Contents

Growth chart

Description of growth chart

This chart shows the patterns of height (length) and weight for children from birth to 36 months.

Purpose of growth chart:

Enable health care providers to

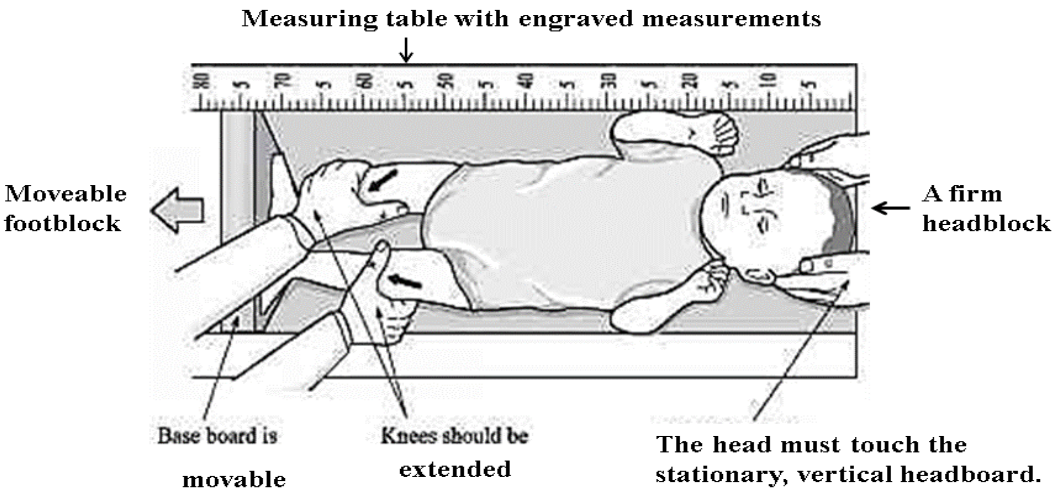
- Assess physical growth among children using head circumferences, weight, and length of infants and children up to 2 years of age.
- To identify potential health or nutrition-related problems.
- Comparing body measurements with the appropriate age and sex

Step in the interpretation of growth chart:

1- Obtain accurate measurements of head circumference, weight and height or length.

- **Head circumference**: A soft tape measure is wrapped around the widest part of baby's head from above the eyebrows, passing above the ears, to the back of head.

- **Length**: provider will lay the baby on a flat table, and stretch the baby's legs out to get an accurate measurement from the top of the head to the soles of the feet.



- **Weight**: The provider will ask the mother to undress the baby and use a baby scale to get the most accurate reading.

2-Select the appropriate growth chart according to age and sex of child

3-Record data:

- Entering today's date
- Entering child's name
- Entering child's age of birth
- Entering child's weight and length
- Add any notable comments

4-Plot measurements on appropriate growth chart

- Find the child's age on horizontal axis (up and down)

- Find the child's weight and length on vertical axis (right and left)
- Normal range in growth chart (5th to 95th)

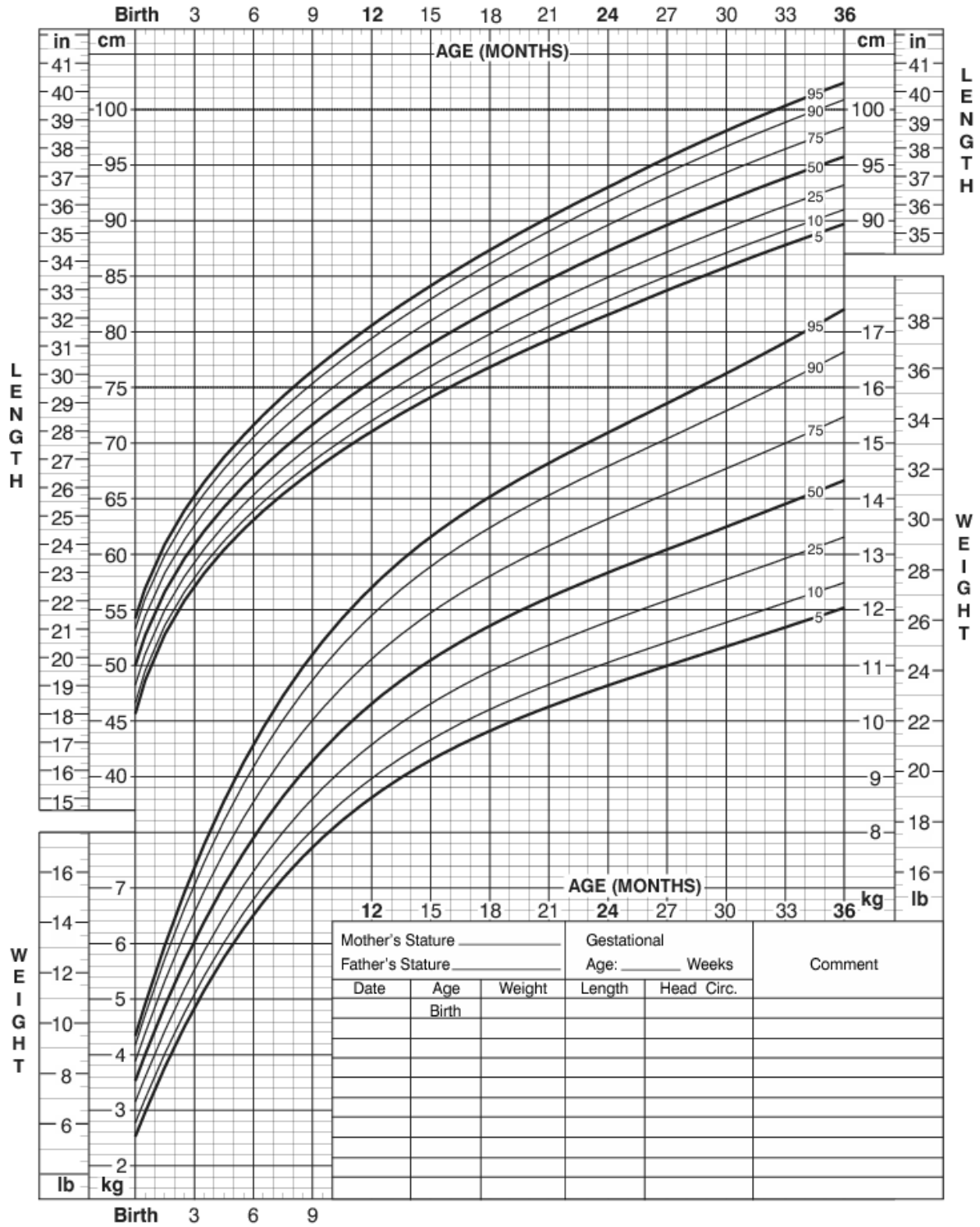
5-Interpret the plotted measurements:

Anthropometric Indicator	Percentile Rank	Nutrition Implication
BMI-for-Age Weight-for-Length	**At or above the 95th**	**Overweight**
BMI-for-Age	**Between 85th and 95th**	**At risk of Overweight**
BMI-for-Age Weight-for-Length	**At or below 5th**	**Underweight**
Stature-for-Age	**At or below 5th**	**Short Stature**
Head Circumference-for-Age	**At or below 5th**	**At risk of Developmental Delays**

Birth to 36 months: Boys
Length-for-age and Weight-for-age percentiles

NAME _____

RECORD # _____



Published May 30, 2000 (modified 4/20/01).

SOURCE: Developed by the National Center for Health Statistics in collaboration with the National Center for Chronic Disease Prevention and Health Promotion (2000).
http://www.cdc.gov/growthcharts

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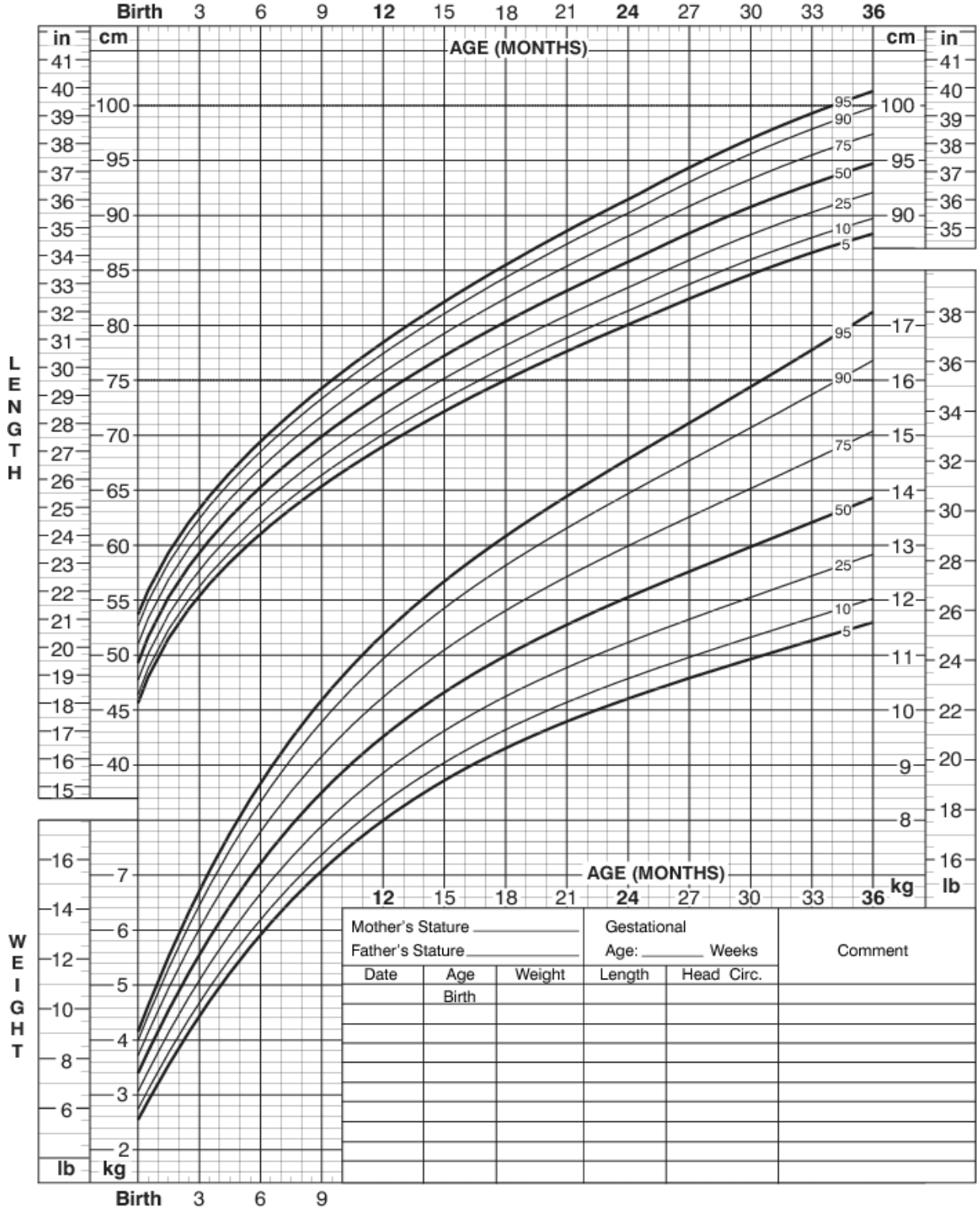
Birth to 36 months: Girls
Length-for-age and Weight-for-age percentiles

NAME _____

RECORD # _____



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Community Health Nursing Bag

Community Health Nursing Bag: is essential equipment for the community health nurse which he/she has to carry along when he/she goes out home visiting. It contains basic equipment which are necessary for giving care.

Bag Technique: - is a tool making use of community health nursing bag during the home visit ease, neat, saving time and effort to perform nursing procedures.

Objectives of CHN Bag Technique procedure:-

1. To render effective nursing care to clients and /or members of the family during home visit.
2. To prevent the spread of infection from individuals to families, then, to the community.
3. To save time and effort on the part of the nurse in the performance of nursing procedures.

I- Preparation: -

Equipment: To make them readily accessible.

- Metal container (tongue depressor, two test tube, scissors, forceps, test tube holder, handler and syringe).
- Iodine ball.

- Muslin bag (containing cotton sponges and cord dressing).
- Soap in soap dish – 2 hand towels - 2 fanfold.
- Extra paper for making bag for waste materials **(paper bag)**
- Note book, pencil, health education materials
- Apron
- Hand towel
- Thermometers in case [one oral and rectal]
- Muslin bag (containing cotton sponges and cord dressing).
- Sphygmomanometer, stethoscope.
- Sterile Cord Tie
- Adhesive Plaster
- Cotton ball
- Tape Measure
- Baby's scale
- One pair of rubber gloves (sterile and disposable),
- Betadine
- 70% alcohol
- Baby oil
- Vaseline

II. Safety Measures:

♦ **General management: -**

Care of bag and equipment: -

1- Never put the bag on the floor at any time, keep the bag on your lap when sitting the home, bus and tram.

2- Use medical aseptic technique, absolutely clean, because the inside of the bag is considered clean

3- Return the center following home visits to change the hand towel.

4- The apron is changed according to the situation from time to time.

5- The equipment used in the home must be washed with soap, rinsed and sterilized.

6- Bottles must be checked and refilled daily.

7- Clean the bag inside and out with soap and water every 2 weeks

8- You must check the bag before making home visits and before leaving the home, to make sure you have all your equipment.

9- Soiled articles must be placed on the top of the bag.

III. Implementation:-

Steps	**Rationale**
• Remove all equipment from the bag • Inventory of the bag, check and refilled the bottles.	To maintain cleaning equipment
• Wash and sterilize the equipment.	To prevent infection
• Clean the bag from inside & outside.	
• Place the bag on a clean surface (not the floor).	To avoid infection 
• Hand washing and wear gloves	To prevent spread of microorganisms
• **Arrangement of equipment: from (**frequently used above less frequently used**.**	Provides for organized approach to task & facilitate procedure
• Oral thermometer in the far right side.	
• Rectal thermometer in the far left side.	

• **Bottles:** of baby oil or Vaseline at **right side.** • **Bottles:** of alcohol & Betadine at **left side.**	
• Metal container (with all its contents) at the bottom of the bag. • Sphygmomanometer, stethoscope. • Baby scale, measuring tape. • Muslin bag. • Apron. • Paper bags. • Soap at (dish) – 2 hand towels - 2 fanfold. • Note book, pencil, health education materials at external pocket of the bag.	
• Remove gloves	

Home visit

Definitions:

A home visit is defined as the process of meeting the health needs of people at their doorsteps. Health services given at home for patient, family and the community in general for nursing service and health counseling.

Purpose of home visit

- To find out needs of individual, family and community in relation to health, socio- economic and cultural aspects.
- To provide domiciliary midwifery as care for pregnant, delivery, and puerperal mother and infant.
- To give care to the sick, to a postpartum mother and her newborn with the view teach a responsible family member to give subsequent care.
- To provide basic health services for minor ailments. (i.e. injury, boils, abrasions)
- To provide counseling on family planning, immunization, nutrition.
- To give health teaching regarding the prevention and control of diseases.
- To establish a close relationship between the nurses and the public for promotion of health.
- To make use of an inter-referral system and to promote the utilization of community services.

Phases of home visit includes: -

1. Preplanning
2. Initiation phase
3. Implementation phase
4. Termination phase
5. Post home visit and preplanning

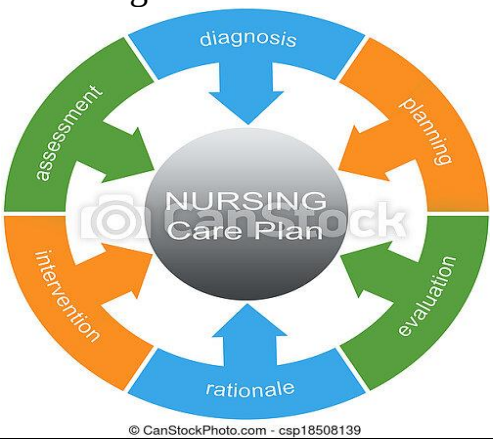
Points for safe home visit:

- Carry a mobile phone
- Be sure the agency knows your visit
- Dress simply without jewelry
- Don't carry a large amount of cash
- Wear agency badge
- Never implement the visit alone

Notes must be taken in consideration during home visit:

- Use proper communication technique
- Teaching must be related to individual and family needs
- Use simple and understandable language
- Use appropriate methods & materials in the instruction process
- Maintain safe environment
- Appropriate referral should used

Procedures of: Home visit for Antenatal care first Visit (8-12 weeks)

STEP/TASK	**RATIONAL**
Preplanning phase:	
1. Review of the family's chart	
2. Prepare nursing care plan	To arrange the care 
3. Contact the family to set up appropriate time for home visit.	To encourage family participation
4. Prepare necessary supplies & equipment.	To identify efficiency of equipment
5. Ensure the equipment are	To facilitate the visit

STEP/TASK	RATIONAL
functioning properly.	
6. Prepare the nursing bag	To facilitate procedure
Initiation Phase:	
7.Knock on the door & gain entrance into the residence	
8.Introduce self, other colleague and the agency	To facilities the visit 
9. Clearly states the expected purpose of the visit	
10. Allow a few moments of socialization before beginning the visit	
11. Ask the family if there is a pressing concern that they would like to deal with first, and if so, follows their needs	
12. If this is the first visit, discuss expectations and management of future visits	
Implementation Phase:	
13. Place the bag on a clean surface (not the floor)	To avoid contamination
14. Wash hands before removing equipment from the bag.	To prevent infection
15. Wear apron	
16- Assessment the following: - History taken - Client's environment - Psychosocial needs - Medication - Nutrition	- To collect information about the family

STEP/TASK	RATIONAL
17- Carry out the prepared procedures - Take vital signs. - General examination (as chest, neck observation of skin and hair and vital signs). - Available investigation at home (as urine analysis). - Weight the mother.	- To provide adequate nursing care, and health education 
18- Health education for mother by using appropriate methods & materials in the instruction process. which includes: • Nutrition • Cloths • Hygiene (personal and environmental). • Rest and sleep • Fresh air • Work • Marital relation • Smoking • Medication • Danger signs	
19-Wash hands between family members	
20- Clean, dispose contaminated materials. The client & caregivers should be taught proper management of contaminated wastes & rational behind such management.	To avoid contamination
21- Replace the equipment.	
Termination phase:	
22- Briefly summarizes the plan of care both procedures and health education that implemented with the family	Actively involving the family by ensuring they receive and understand the information
23- Set up a time & the purpose for the next home visit	To be ready for the next visit
Post home visit and preplanning phase	
24. Record home visit in complete,	To provide accurate documentation

STEP/TASK	RATIONAL
concise & accurate manner	
25- Communicate finding to other health care provider (report any abnormalities).	

Procedures of: Home visit for Antenatal care Second Visit (24 -26 weeks)

STEP/TASK	RATIONAL
Preplanning phase:	
1. Review of the family's chart	
2. Prepare nursing care plan	To arrange the care
3. Contact the family to set up appropriate time for home visit	To encourage family participation
4. Prepare necessary supplies & equipment	To identify efficiency of equipment
5. Ensure the equipment are functioning properly	To facilitate the visit
6. Prepare nursing bag	To facilitate procedure
Initiation phase:	
7. Knock on the door & gain entrance into the residence	
8. Clearly states the expected purpose of the visit	
9. Allow a few moments of socialization before beginning the visit	
10. Ask the family if there is a pressing concern that they would like to deal with first, and if so, follows their needs	
Implementation Phase:	
11. Place the bag on a clean surface (not the floor)	To avoid contamination
12. Wash hands before removing equipment from the bag	To prevent infection
13. Wear apron	
14**.** Carry out the prepared procedures 1- Take vital signs. 2- General examination as examine the legs for edema 3- Local examination as (abdominal and breast examination). 4- Weight the mother 5- Test urine for albumin	 

STEP/TASK	RATIONAL
15. Health education for mother which include:- Danger signs (as edema of lower limb or face, persistent headache, blurring of vision and sever abdominal pain). • Immunization (tetanus immunization schedule). • Exercises as (mild house work and walking). • Nutrition • Personnel hygiene • Clothes	
16- Wash hands between family members	To avoid contamination
17- Clean, dispose contaminated materials. The client & caregivers should be taught proper management of contaminated wastes & rational behind such management.	To avoid contamination
18- Replace the equipment.	To maintain environment
Termination phase:	
19- Briefly summarizes the plan of care both procedures and health education that implemented with the family	Actively involving the family by ensuring they receive and understand the information
20- Set up a time & the purpose for the next home visit	To be ready for the next visit
Post home visit and preplanning phase	
21. Record home visit in complete, concise, & accurate manner	To provide accurate documentation
22. Communicate finding to other health care provider (or report any abnormalities)	

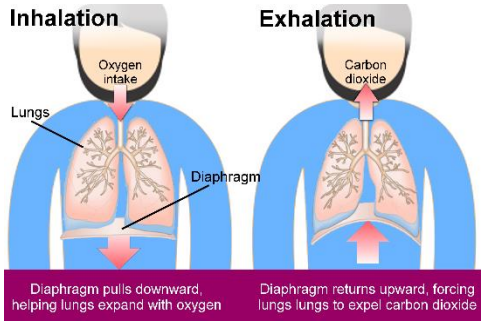
Procedures of: Home visit for Antenatal care Third Visit (32 weeks)

STEP/TASK	**RATIONAL**
Preplanning phase:	
1. Review of the family's chart	
2. Prepare nursing care plan	To arrange the care
3. Contact the family to set up appropriate time for home visit	To encourage family participation
4. Prepare necessary supplies & equipment	To identify efficiency of equipment
5. Ensure the equipment are function properly.	To facilitate the visit
6. Prepare nursing bag.	To facilitate the procedure
Initiation Phase:	
7. Knock on the door & gain entrance into the residence	
8. Clearly states the expected purpose of the visit	
9. Allow a few moments of socialization before beginning the visit	
10. Ask the family if there is a pressing concern that they would like to deal with first, and if so, follows their needs	
Implementation Phase:	
11. Place the bag on a clean surface (not the floor)	To avoid contamination
12. Wash hands before removing equipment from the bag	To prevent infection
13. Wear apron	
14**.** Carry out the prepared procedures 1. Take vital signs. 2. General examination as examine the legs for edema 3. Local examination as (abdominal and breast examination). 4. Weight the mother 5. Test urine for albumin	

STEP/TASK	RATIONAL
15. Health education for mother by using appropriate methods & materials in the instruction process. which includes: • Danger signs (as edema in lower limb or face, persistent headache, blurring of vision and severe abdominal pain). • Signs of labor (contracted uterus with regular interval and frequency, presence of show and pain in lower back and extended to abdomen). • Place of delivery • Exercises (mild house work and walking) • Nutrition	
16- Wash hands between family members	To avoid contamination
17- Clean, dispose contaminated materials. The client & caregivers should be taught proper management of contaminated wastes & rational behind such management.	To avoid contamination
18- Replace the equipment.	To maintain environment
Termination phase:	
19- Briefly summarizes the plan of care both procedures and health education that implemented with the family	Actively involving the family by ensuring they receive and understand the information
20- Set up a time & the purpose for the next home visit	To be ready for the next visit
Post home visit and preplanning phase:	
21. Record home visit in complete, concise, & accurate manner	To provide accurate documentation
22. communicate finding to other health care provider (or report any abnormalities)	

Procedures of: Ante natal care at home Fourth Visit (36-38 weeks)

STEP/TASK	RATIONAL
Preplanning phase:	
1. Review of the family's chart	
2. Prepare nursing care plan	To arrange the care
3. Contact the family to set up appropriate time for home visit	To encourage family participation
4. Prepare necessary supplies & equipment	To identify efficiency of equipment
5. Ensure the equipment are function properly.	To facilitate the visit.
6. Prepare nursing bag.	To facilitate the procedure
Initiation Phase:	
7. Knock on the door & gain entrance into the residence	
8. Clearly states the expected purpose of the visit	
9. Allow a few moments of socialization before beginning the visit	
10. Ask the family if there is a pressing concern that they would like to deal with first, and if so, follows their needs	
Implementation Phase:	
11. Place the bag on a clean surface (not the floor)	To avoid contamination
12. Wash hands before removing equipment from the bag	To prevent infection
13. Wear apron	
14**.** Carry out the prepared procedures • Take vital signs. • General examination as examine the legs for edema • Local examination as (abdominal and breast examination). • Weight the mother • Test urine for albumin • Observe danger signs.	

STEP/TASK	RATIONAL
15- Health education for mother by using appropriate methods & materials in the instruction process. which includes: • Signs of labor (contracted uterus with regular interval and frequency, presence of show and pain in lower back and extended to abdomen). • Place of delivery • Relaxation and breathing exercises for preparation of labor. • Family planning • Breast care technique for preparation of breast feeding. • Nutrition • Care of the baby as clothes, bathing, eye and cord care.	 
16- Wash hands between family members	To avoid contamination
17- Clean, dispose contaminated materials. The client & caregivers should be taught proper management of contaminated wastes & rational behind such management.	To avoid contamination
18- Replace the equipment.	To maintain environment
Termination phase:	
19- Briefly summarizes the plan of care both procedures and health education that implemented with the family	Actively involving the family by ensuring they receive and understand the information
20- Set up a time & the purpose for the next home visit	To be ready for the next visit
Post home visit and preplanning phase:	
21. Record home visit in complete, concise, & accurate manner	To provide accurate documentation
22- Communicate finding to other health care provider (or report any abnormalities)	

Postpartum care

Definition: It is the period of time from the end of the third stage of labor until the time at which the pelvic organs have returned to normal about 6-8 weeks.

Another definition: Is a critical time in the women life. During that time women need physical and psychological cares as well as guidance for healthy practices for themselves and their babies. The period of post-natal care is six weeks which is considered enough for the women to resume her physical status and adjust to her new life with the baby.

Objectives:-

- Help women to resume physical and mental health.
- Detect and arrange proper management and follow up of obstetric injuries, health problems and pregnancy associated complication as well as treat reproductive tract infection.
- Examine the newborn for early detection of congenital malformation and jaundice.
- Provide health education for the mother regarding hygiene, nutrition, child care, breast feeding, immunization and family planning method.

Postnatal women health assessment:

After delivery care given to mother is called postnatal care

1. Immediate care of the mother: Watch for bleeding, vital signs
2. Vulvae toilet: Use aseptic and antiseptic technique must be followed
3. Bladder: Mother should pass urine within 24 hours after delivery.
4. Bowels: get enough amounts of roughage and fluid through her diet which stimulates bowel movement.
5. Rest and sleep: Prevent mental illness 6 positions: must be sit or move and take lie down in prone some time that will in better drainage of lochia.

6. Diet: Well-balanced diet
7. See uterus fundal height and lochia
8. Early ambulation: in normal delivered women allowed being out of bed on the first day of the puerperium.
9. Post-natal exercises: advice for postnatal exercises.

After 6 weeks: Urine: for protein, weight of mother, blood, Hb, vaginal and speculum examination, there are always opportunities in the school environment to teach important heath messages.

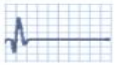
Schedule of postpartum visits

- First visit (1st postpartum day).
- Second visit (3rd postpartum day).
- Third Visit: (5th postpartum day).
- Fourth visit (7th postpartum day).
- Fifth visit: (10th postpartum day).
- Sixth visit: (15th postpartum day).
- Seventh visit: (22nd postpartum day).
- Eighth visit: (40th postpartum day).

Apgar Scoring

Items	Score of 0	Score of 1	Score of 2
1- Appearance	Blue or pale	blue at extremities body pink	body and extremities pink
2-**p**ulse	Absent	Less than 100 beats per minute	More than 100 beats per minute
3-Grimace reflex irritability to catheter in nose	No response	Cry, some motion and sluggish	Cough or sneeze, vigorous, cry
4-Activity muscle tone	Flaccid	some flexion of extremities	flexed arms and legs that resist extension
5-Respiration	Absent	Slow , irregular	Good -strong cry

The Apgar Score

Indicator	0 Points	1 Points	2 Points	Total Points
A Appearance (skin color)	Blue (cyanotic) Pale (white) all over 	Pink body blue extremities (Acrocyanosis) 	Pink body 	____
P Pulse	Absent No pulse 	< 100 bpm 	> 100 bpm 	____
G Grimace Reflex Irritability	Floppy No response 	Minimal Response when Stimulation 	Prompt Response Sneezing, Crying or Pulling Away when stimulated 	____
A Activity (Muscle tone)	No Movement Flaccid 	Flexed arms and legs 	Active motion 	____
R Respiration	Absent No breathing	Weak or Slow  Irregular	Vigorous  Strong Cry	____

Severely depressed	0 – 3
Moderately depressed	4 – 6
Excellent condition	7 -10

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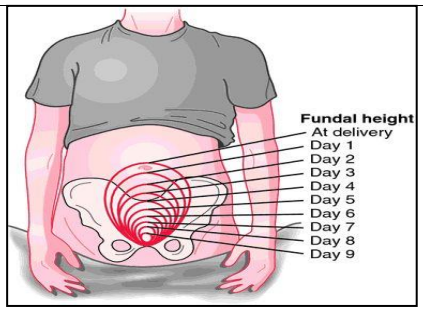
Procedures of Post-Partum Care (First Visit)

Step/Task	Rational
1. Hand washing.	To prevent spread of microorganisms
2. Prepare necessary equipment and supply.	Provides for organized approach to task.
3. Ensure the equipment is functioning properly.	To facilities the visits and identify efficiency of equipment
4. Contact mother according to the time schedule.	To encourages mother cooperation
5. Prepare Nursing care plan.	To facilitate procedure
6. Prepare Nursing Bag	It clearly defines guidelines along with the nurse's role in patient care and helps them create and achieve a solid plan of action.
7- Procedure: First visit (1st postpartum day).	
For the mother:	
8. Wash hands	
9. Wear apron and gloves	
10. Check vital signs.	To detect any signs of infection (as feverish, tachycardia).

11. Estimate the Fundal level (immediately after labor uterus above umbilicus level (1/U) and then decrease 1finger/day.)	 To determine progress of return normal level
12. Ask about Lochia (rubra, red color), bleeding, urine and bowel movement.	To identify any problems
13. Episiotomy care (if performed). • Remove the soiled dressing from above to down ward by using disposable glove • Wash hands and wear sterile gloves. • Use one direction swapping cotton with septic solution from above to down • Dry from above to down ward (at the same direction)	
14. Check the condition of the lower extremities for deep venous thrombosis.	
15. Assess the condition of the breast (engorgement, observe nipple for crackles, inverted, or flat)	- To provide breast feeding
16.Remove gloves	
For baby:	
17. wash hand and wear gloves	
18. Assessment of baby condition (APGAR score) A : Appearance P: Pulse G: Grimes (reflexes) A: Activity (muscle tone). R: Respiration	To identify any problems
19. Take anthropometric measurement	To identify physical growth of

(Weight, length, head and chest circumference).	the baby
20.Assess the eye condition (as jaundice, pupils react to light, blink reflex).	To identify any problems
21. Make cord dressing.	To determine progress of healing
Post Procedure Activities:	
22. Remove gloves and Wash hands.	To prevent spread of microorganisms
23. Educate the mother for: • Early ambulation • Nutrition. • Breast-feeding. • Rest & sleep. • Postpartum exercise. • Personal hygiene • New born care (as skin, eye, ear, and diaper care).	Health education for postnatal mothers has an impact on infant feeding and care. Moreover, help women to resume physical and mental health
24. Clean and dispose the contaminated materials.	To avoid contamination.
25. Replace the equipment.	To maintain environments
26. Terminate the Visit	To identify feedback of the mother and focused on missing points.
27. Make appointment for the next visit.	To ready to next visit
28. Record all data about the mother and the newborn.	To provides accurate documentation.
29. Report & communicate findings to MCH.	To provide early management for any abnormalities.

Procedures of: Post-Partum Care (Second Visit)

Step/Task	**Rational**
1. Hand washing.	To prevent spread of microorganisms
2. Prepare necessary equipment and supply.	Provides for organized approach to task.
3. Ensure the equipment are functioning properly.	To facilities the visits and identify efficiency of equipment
4. Contact mother according to the time schedule.	To encourages mother cooperation
5. Prepare Nursing Bag.	To facilitate procedure
6. Prepare Nursing care plan.	It clearly defines guidelines along with the nurse's role in patient care and helps them create and achieve a solid plan of action.
7. Procedure Second visit (3rd postpartum day).	
For the mother:	
8. Wash hands	
9. Wear apron and gloves	
10. Assess the mother's general condition (as appearance, color and ambulation).	
11. Check vital signs.	To detect any signs of infection (as feverish and tachycardia)
12. Estimate the Fundal level (U/1).	To determine progress of return normal level
13. Check Lochia (rubra), and perineal condition.	To identify any problems

14. Check flow of milk and breast condition for engorgement.	To provide breast feeding
15.Remove gloves	
For baby:	
16. Wash hand and wear gloves	
17. Check vital signs.	
18. Make baby bath.	To prevent infection
19. Make cord care.	 To determine physical growth
20. Assess color of skin for jaundice.	To identify any problems
Post Procedure Activities:	
21. Remove gloves and wash hands.	To prevent spread of infection
22. Educate the mother for: 1- Personal hygiene. 2- Rest & sleep. 3- Postpartum exercise. 4- Breast-feeding. 5- Nutrition.	Health education for postnatal mothers has an impact on infant feeding and care. Moreover, help women to resume physical and mental health
23. Clean and dispose contaminated materials.	To avoid contamination.
24. Replace Equipment.	To maintain environments
25. Terminate the Visit	To identify feedback of the mother and focused on missing points.
26. Make appointment for the next visit.	To ready to next visit

27. Record all data about the mother and the newborn.	To provides accurate documentation.
28. Report & communicate findings to MCH.	To provide early management for any abnormalities.

Procedures of: Post-Partum Care (Third Visit)

Step/Task	**Rational**
1. Hand washing.	To prevent spread of microorganisms
2. Prepare necessary equipment and supply.	Provides for organized approach to task.
3. Ensure the equipment are functioning properly.	To facilities the visits and identify efficiency of equipment
4. Contact mother according to the time schedule.	To encourages mother cooperation
5. Prepare Nursing Bag.	To facilitate procedure
6. Prepare Nursing care plan.	It clearly defines guidelines along with the nurse's role in patient care and helps them create and achieve a solid plan of action.
7. Procedure: Third Visit: (5^{th} postpartum day).	
For the mother:	
8. Wash hands	
9. Wear apron and gloves	
10. Assess mother's general condition (as appearance, color and ambulation).	To detect any signs of infection
11. Check the vital sign.	To detect any signs of infection (as feverish and tachycardia).
12. Check the level of the fundus (U/3).	To determine progress of return normal level
13. Check the Lochia (serosa, pale color).	To identify any problems
14. Check the breast condition for engorgement.	To facilities breast feeding

15. Ensure the mother is assuming normal activities.	
16.Remove Gloves	
For baby:	
17.Wash hand and wear gloves	
18. Check vital signs.	
19. Make cord care.	
Post Procedure Activities:	
20. Remove gloves and Wash hands	
21. Educate the mother for: 1- Personal hygiene. 2- Rest & sleep. 3- Postpartum exercise. 4- Breast-feeding. 5- Nutrition.	Health education for postnatal mothers has an impact on infant feeding and care. Moreover, help women to resume physical and mental health
22. Clean and dispose contaminated materials.	To avoid contamination.
23. Replace Equipment.	To maintain environments
24 Terminate the Visit	To identify feedback of the mother and focused on missing points.
25. Make appointment for the next visit.	To ready to next visit
26. Record all data about the mother and the newborn.	To provides accurate documentation.
27. Report & communicate findings to MCH.	To provide early management for any abnormalities.

Procedures of: Post-Partum Care (Fourth Visit)

Step/Task	**Rational**
1. Hand washing.	To prevent spread of microorganisms
2. Prepare necessary equipment and supply.	Provides for organized approach to task.
3. Ensure the equipment are functioning properly.	To facilities the visits and identify efficiency of equipment
4. Contact mother according to the time schedule.	To encourages mother cooperation
5. Prepare Nursing Bag.	To facilitate procedure
6. Prepare Nursing care plan.	It clearly defines guidelines along with the nurse's role in patient care and helps them create and achieve a solid plan of action.
7. Procedure Fourth visit: (7^{th} day).	
For the mother:	
8. Wash hands	
9. Wear apron and gloves	
10. Assess mother's general condition (as appearance, color of skin and ambulation).	To detect any signs of infection
11. Check the vital sign.	To detect any signs of infection (feverish and tachycardia).
12. Check the level of the fundus (U/5).	To determine progress of return normal level
13. Check the Lochia serosa.	To determine types of lochia
14. Check the breast condition.	- To provide breast feeding

15.Remove gloves	
For baby:	
16.Wash hand and wear gloves	
17. Check vital signs.	
18. Weight the baby.	 To identify physical growth of the baby
19. Check the cord drop.	
20. Newborn care (as eye, ear, and diaper care).	
Post Procedure Activities:	
21. Remove gloves and Wash hands	To prevent spread of microorganisms
22. Educate the mother for: 1- Personal hygiene. 2- Rest & sleep. 3- Postpartum exercise. 4- Breast-feeding. 5- Nutrition.	Health education for postnatal mothers has an impact on infant feeding and care. Moreover, help women to resume physical and mental health

22. Clean and dispose contaminated materials.	To avoid contamination.
23. Replace Equipment.	To maintain environments
24. Terminate the Visit	To identify feedback of the mother and focused on missing points.
25. Make appointment for the next visit.	To ready to next visit
26. Record all data about the mother and the newborn.	To provides accurate documentation.
27. Report & communicate findings to MCH.	To provide early management for any abnormalities.

Post-Partum Care (Fifth Visit)

For the mother:

10. Assess the vital signs.

11. Check the level of the fundus (U/8).

12. Check the Lochia (alba, yellowish, white color).

For baby:

15. Check vital signs.

16. Check the cord drop.

Post-Partum Care (Sixth visit)

For the mother:

10. Assess the vital signs.

11. Check the color of discharge.

12. Check the uterus involution

For the Infant:

15- Weight the baby.

16-Baby care (as diaper and skin care).

17- Check BCG vaccination

Post-Partum Care: (Seventh Visit & Eighth Visit)

For the mother:

10. Assess the vital signs.

11. Check the uterus involution.

12. Check the color of discharge.

For the Infant:

15. Baby care (as skin, and diaper care).

16. Check BCG vaccination

Educate the mother for:

1- Personal hygiene.

2 - Breast-feeding.

3 - Nutrition.

4- Counsel for mother about family planning.

Immunization and cold chain

Types of vaccine:

- **Live attenuated vaccine:** is a vaccine created by reducing the virulence of a pathogen, but still keeping it viable (or "live").Attenuation takes an infectious agent and alters it so that it becomes harmless or less virulent as:
    a. BCG vaccine against TB
    b. Polio vaccine against poliomyelitis
    c. Measles vaccine
- **Killed vaccine*:*** An inactivated vaccine (or killed vaccine) is a vaccine consisting of virus particles, bacteria, or other pathogens that have been grown in culture and then lose disease producing capacity.
    a. Pertussis vaccine
    b. Salk vaccine against poliomyelitis
    c. Hepatitis B vaccine
- **Toxoid vaccine:** A toxoid is an inactivated toxin (usually an exotoxin) whose toxicity has been suppressed either by chemical (formalin) or heat treatment, while other properties, typically immunogenicity, are maintained such as Diphtheria toxoid and Tetanus toxoid.

Obligatory immunization schedule for children in Egypt

Age	Vaccine	Dose	Route	Amount
first 24 hours)	- HBV	Zero dose	IM Rt. Thigh	0.5 ml
At birth(first month)	- OPV(oral polio vaccine) - BCG(Bacillus of Calmette &Guerin).	Zero dose Zero dose	Oral ID (Lt. Arm)	2 drops 0.05 ml
At 2 months	- OPV - Penta vaccine (DPT, Haemophils influenza and HBV) - IPV (SALK)	1st 1st 1 st	Oral IM Rt. Thigh IM Lt. Thigh	2 drops 0.5 ml 0.5 ml
At 4 months	- OPV - Penta vaccine (DPT, Haemophilus influenza and HBV) - IPV (SALK)	2nd 2 nd 2 nd	Oral IM Lt. Thigh IM Rt. Thigh IM Lt. Thigh	2 drops 0.5 ml 0.5 ml 0.5 ml
At 6 months	- OPV - Penta vaccine (DPT, Haemophilus influenza and HBV) - IPV (SALK)	3 rd 3 rd 3 rd	Oral (IM Rt. Thigh) IM Lt. Thigh	2 drops 0.5 ml 0.5 ml
At 9 months	- OPV - Vit A	4 th 1st	Oral Oral	2 drops 100,000 unit
At 12 months	- OPV - MMR(Measles, Mumps, Rubella)	5th 1 st	Oral SC (Rt. Arm)	2 drops 0.5 ml
At 18 months	- OPV - MMR - DPT - Vit A	Booster Booster Booster	Oral SC (Rt. Arm) IM (Lt. Thigh) Oral	2 drops 0.5 ml 0.5 ml 200.000 unit

Definition of cold chain:

It is the system of storage and transportation of the vaccine at low temperature (cold condition) from the manufacture till it is consumed. Vaccines should be maintained within the recommended temperature range of 2°C to 8°C.

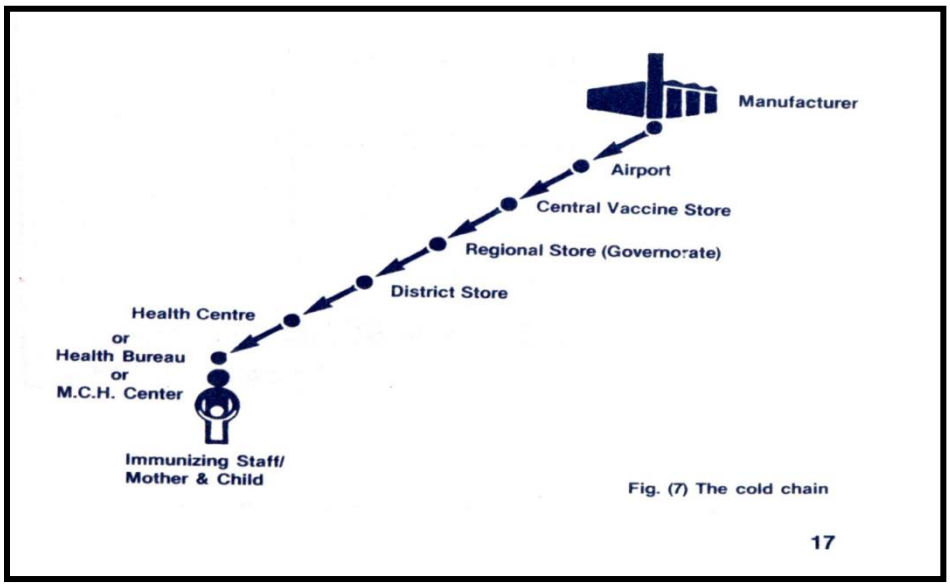


Table 1: Sensitivity of vaccines to freezing

Vaccines damaged by freezing	Vaccines unaffected by freezing
DPT DT Td TT Hepatitis B	BCG * OPV Measles * Mumps

Note: Vaccines freeze at temperatures just below zero.

- BCG and measles vaccines must not be frozen after reconstitution
- diluent for any vaccine must never be frozen.

Equipment for Transporting and Storing Vaccines:-

The essential cold chain equipment needed to transport and store vaccines within a consistent safe temperature range include:

- A refrigerator for storing vaccines
- A digital, electronic or mercury/maximum thermometer and chart for recording daily temperature reading
- Cold boxes for transporting and storing vaccines
- Ice packs to keep vaccines cool

Maintenance of the vaccine refrigerator

- It should place in the coolest place of the health centers away from sunlight.
- Always keep a thermometer in the refrigerator; read and record the temperature twice daily;
- Never store vaccines in the door shelves or the very bottom of the refrigerator, as both get warmer than the center of the compartment;
- Store vaccine boxes or trays with spaces between to allow air circulation inside the refrigerator;
- Kept locked and open only when necessary.
- Defrosted regularly.
- Ice packs are kept in the freezer.
- Drugs, drinks or food must ***not be*** stored in the refrigerator.
- The diluents should be kept on the lowest shelf.

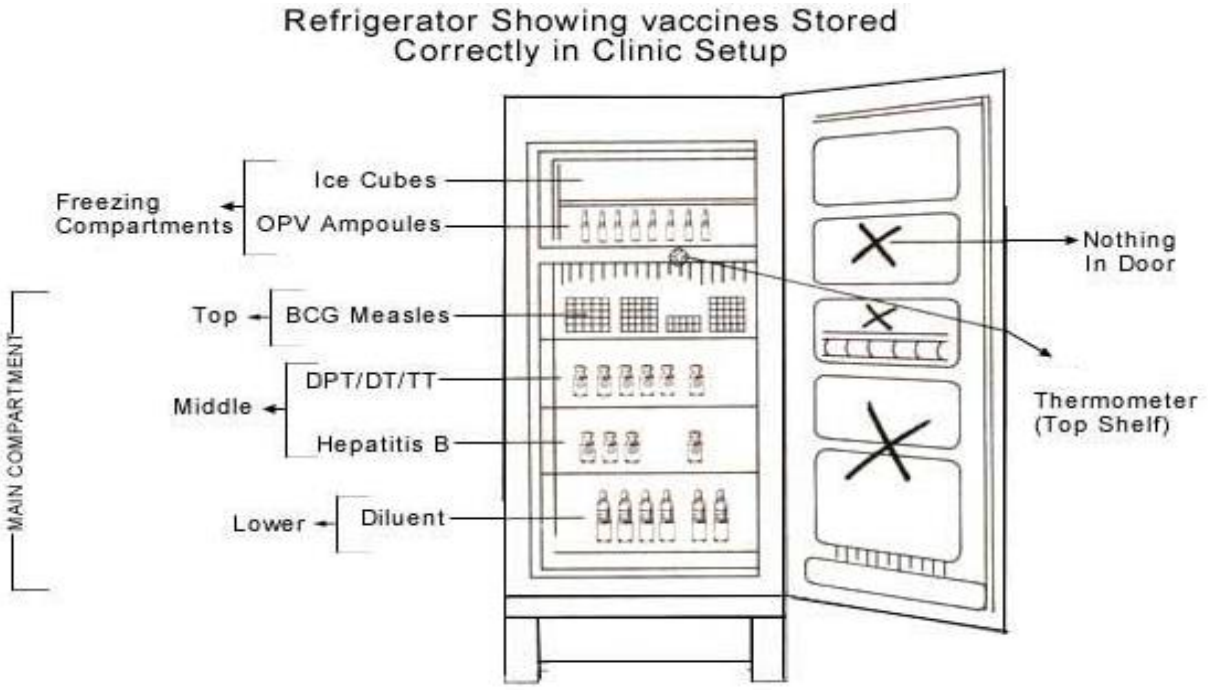
Storage of the vaccine

- Polio and ice packs are kept on freezing compartments
- BCG and measles vaccines are kept on the top shelf of the refrigerator under the freezer. The rest of the vaccines, DPT, DT, TT and hepatitis B are kept on the middle shelf of the refrigerator.

- Diluent is kept on lower of the refrigerator.

Notes:

- Shake vial vigorously before withdrawal and use.
- Do not use if resuspension does not occur with vigorous shaking.
- The vaccine should be administered shortly after withdrawal from the vial.



Tools for monitoring the cold chain:

1- Cold Chain Monitor Card.

2- Freeze Watch Indicator.

3- Cold Chain Refrigerator Graph.

4- Vaccine Vial Monitors.

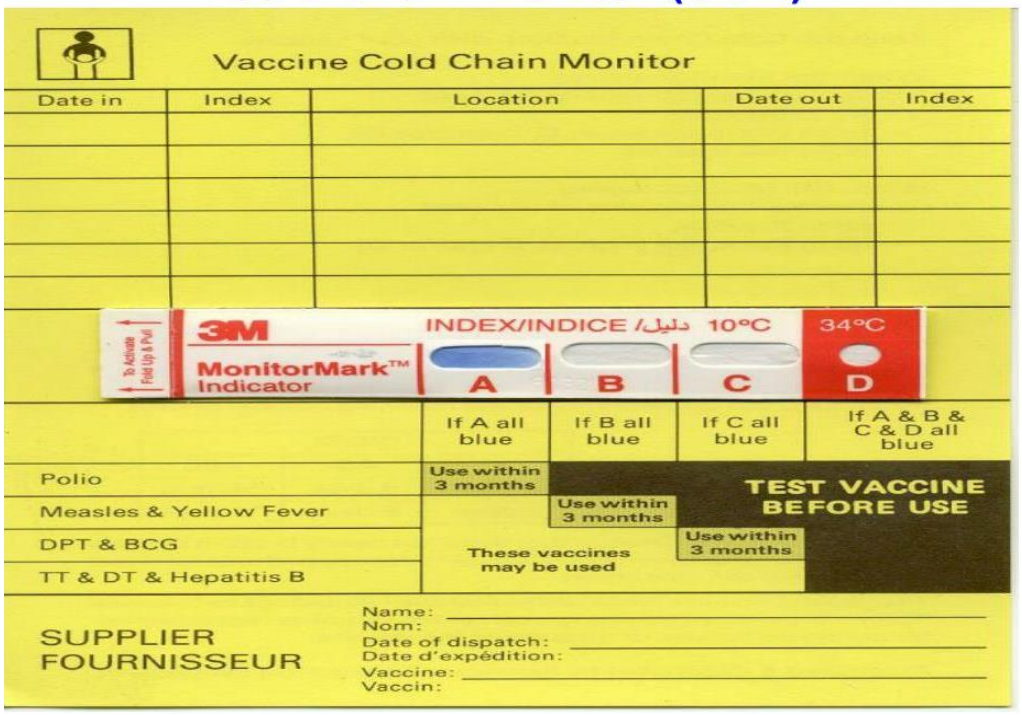
5- Shake Test.

1. Cold Chain Monitor Card:

It is used to show cumulative exposure to temperature above the safe range during storage& transportation. It has an indicator that responds to two different

Temps: the first part marked as **ABC**, responds to Temp above +10ºC; the 2nd part marked as **D** responds to temperature above +34ºC.

Cold Chain Monitor (CCM)

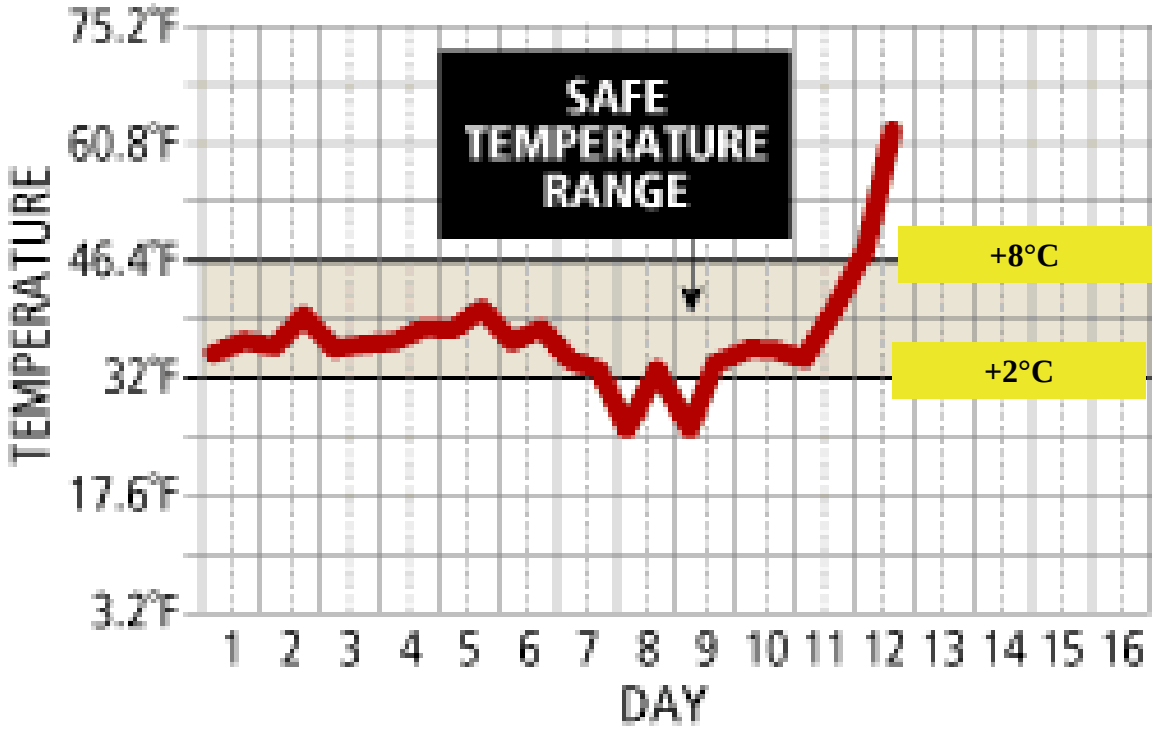


2. Freeze watch indicator

A freeze watch indicator consists of a small vial of red liquid attached to a white card and covered in plastic. The vial breaks if the temperature where the indicator is located drops below 0° C for more than one hour, and the vaccine must then be destroyed.

3. Cold Chain Refrigerator Graph

The vaccines are stored in refrigerators, they are monitored twice a day and readings are recorded on a chart to ensure a safe temperature is maintained. Emergency provisions made. Vaccines moved to cold storage for 48 hours.

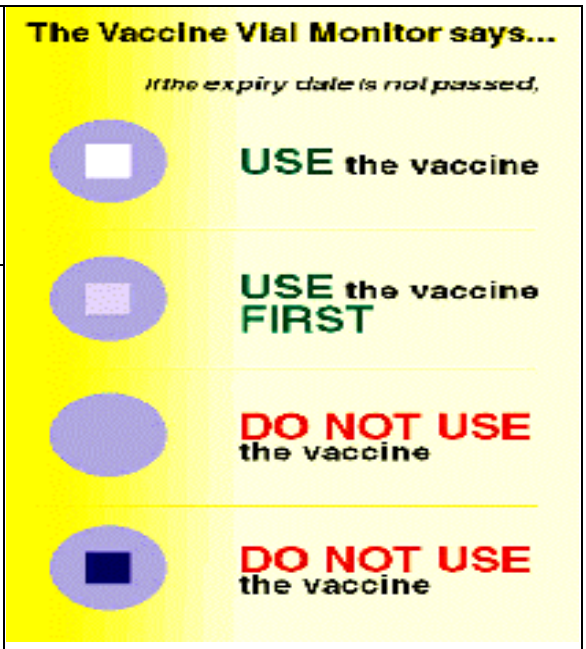


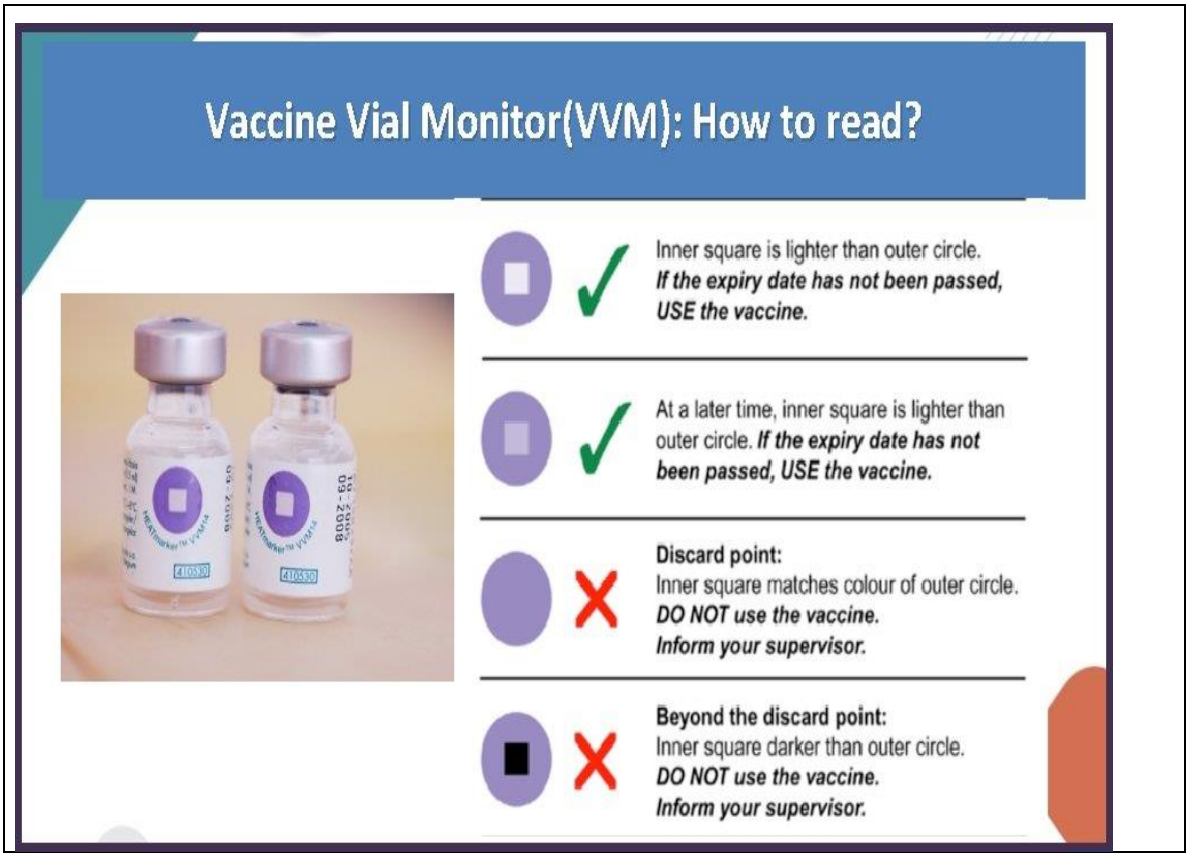
4. Vaccine vial monitors (VVMs):

VVMs are small indicators that adhere to vaccine vials and change colour as the vaccine is exposed to cumulative heat, letting health workers know whether the vaccine has exceeded a pre-set limit beyond which the vaccine should not be used.

The colour of the inner square of the VVM starts with a shade that is lighter than the outer circle and continues to darken with time and/or exposure to heat

Once a vaccine has reached or exceeded the discard point, the colour of the inner square will be the same colour or darker than the outer circle.

SAFE If the inner square is lighter than the outer ring and the expiration date is valid, the vaccine is **usable**	
SPOILED If the inner square matches or is darker than the outer ring, the vaccine must be **discarded.**	



5-The shake test

DPT, hepatitis B and tetanus toxoid vaccines can all be damaged by freezing. By shaking two vials, side-by-side, one that might have been frozen and one that has never been frozen, health workers can determine if a vaccine has spoiled.

Mantoux Skin Test

Definition:

It is the standard method of determining whether a person is infected with *Mycobacterium tuberculosis*. The skin test should be read between 48 and 72 hours after administration. A patient who does not return within 72 hours will probably need to be rescheduled for another skin test.

Mantoux Skin Test also known as Tuberculin Skin Test **(TST)**, Tuberculin Test **(TB test)** , Purified Protein Derivative **(PPD).**

Important points regarding TST:

- The PPD test determines if someone has developed an immune response to the bacterium that causes tuberculosis (TB).
- The basis of the reading of the skin test is the presence or absence and the size of induration (localized swelling).
- A negative test does not always mean that a person is free of tuberculosis.
- A person who received a BCG vaccine against tuberculosis may also have a positive skin reaction to the TB test, although a person is may be free of tuberculosis.
- The tuberculosis skin test determines if someone has developed an immune response to the bacterium that causes tuberculosis (TB). This response can occur if someone currently has TB, if they were exposed to it in the past, or if they received the BCG vaccine against TB.
- An incubation period of two to 12 weeks is usually necessary after exposure to the TB bacteria in order for the PPD test to be positive.
- Anyone can have a TB test, and physicians can perform the test on infants, pregnant women, or HIV-infected people with no danger.

- It is only contraindicated in people who have had a severe reaction to a previous tuberculin skin test.

Equipment:

- Tuberculin Syringes with blunt fill filter needle
- Alcohol Wipes
- Mantoux Solution (purified protein derivative "PPD")
- Sharps Box
- Rubbish Container
- Emergency Equipment
- Consent Form
- Patient Chart
- Transparent Ruler in millimeters (mm)

Procedure:

Preparation

- Wash hands.
- Gather neccessary equipment.
- Prepare the vial contains tuberculin.
- Explain the procedure to the client.

Locate and clean injection site

- Place forearm palm side up on a firm, well-lit surface
- Select an area free of barriers (e.g., scars, sores) to placing and readin
- Clean the area with an alcohol swab

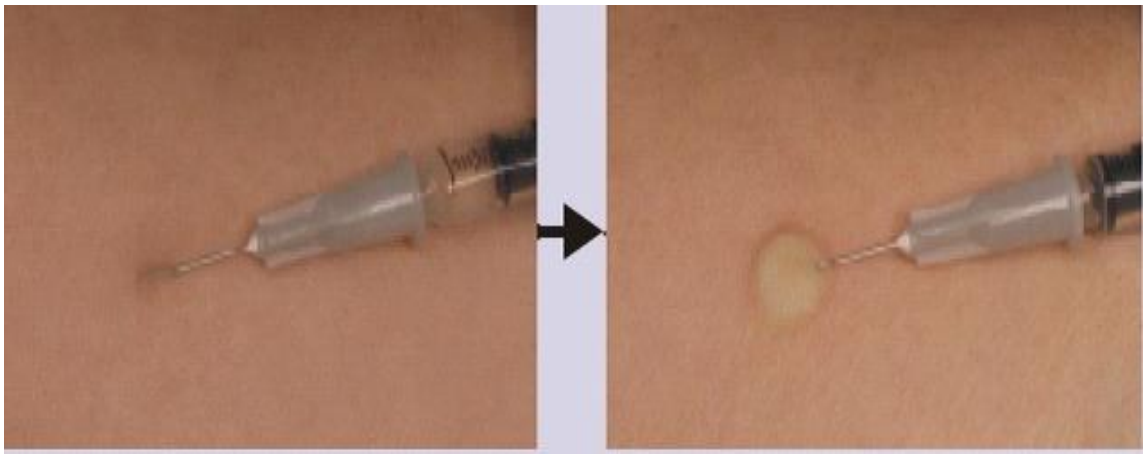
2-4 inches below elbow joint

Prepare syringe

- Check expiration date on vial and ensure vial contains tuberculin (5 TU per 0.1 ml)
- Use a single-dose tuberculin syringe with a ¼- to ½-inch, 27-gauge needle with a short bevel
- Fill the syringe with 0.1 ml of tuberculin

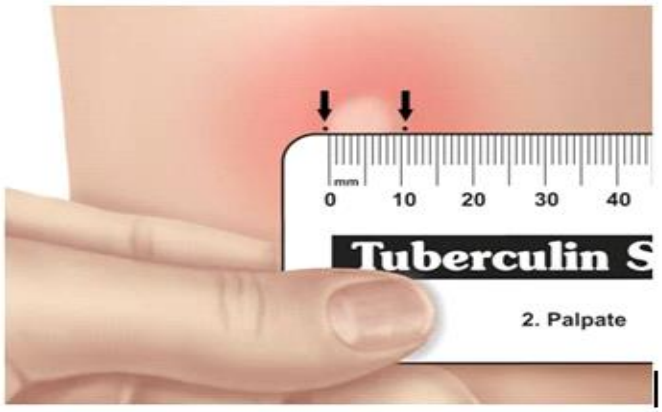
Inject tuberculin

- Insert slowly, bevel up, at a 5- to 15-degree angle Needle bevel can be seen just below skin surface
- After injection, a tense, pale wheal should appear over the needle



Check skin test

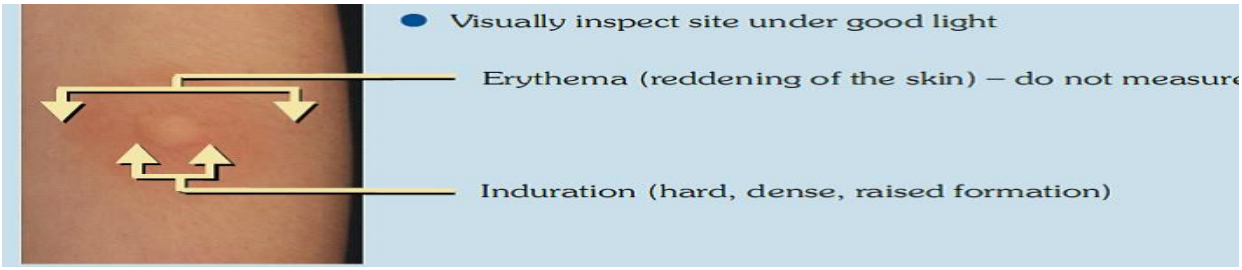
- To ensure correct injection , Wheal should be measured transversely 6 to 10 mm in diameter. If not, repeat test at a site at least 2 inches away from original site
- Do not recap the needle. Discard it in the sharp boxes.
- Assist the client to return to a comfort position.
- Remove the glove & wash hands.
- Record all the information required for documentation (e.g., date and time of test administration, injection site location, lot number of tuberculin)



Reading

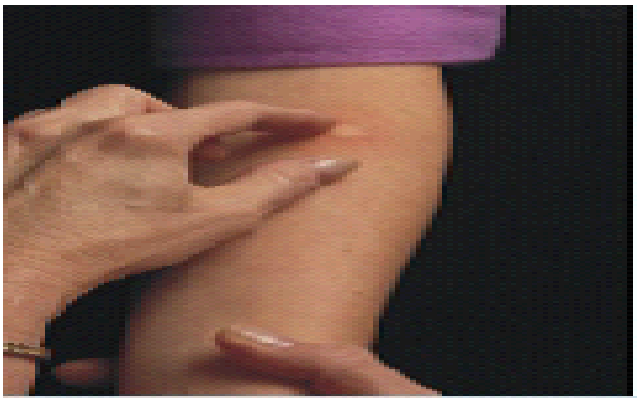
Inspect site

- Visually inspect site under good light



- Use fingertips to find margins of induration

- Marking widest edges of induration transversely (right and left) across forearm.

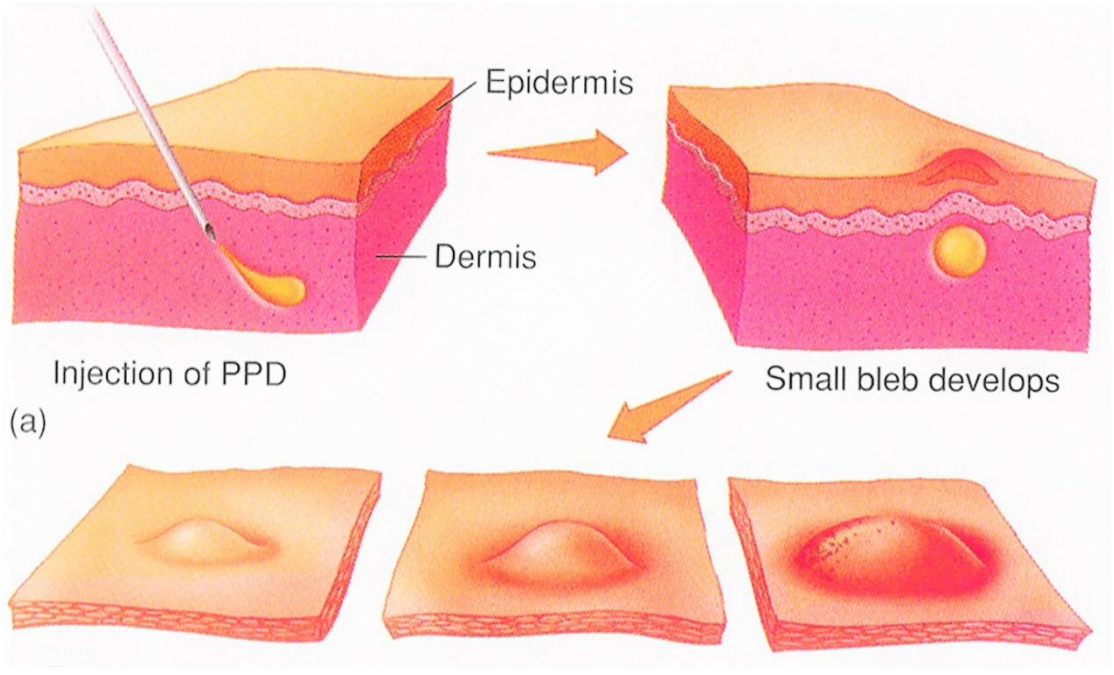


- Place “0” ruler line inside left dot edge

- Read ruler line inside right dot edge (use lower measurement if between two gradations on mm scale)
- Record measurement of induration in mm

- If no induration, record as 0 mm
- Do not record as “positive” or “negative”
- Only record measurement in mm

Classification of tuberculin skin test reaction:



0-4 mm (Negative)	5-9 mm(Douptful)	10-14 mm (Positive)

The Classification of tuberculin reactions catograized as:

- 0-4 mm (Negative)
- 5-9 mm(Douptful)
- 10-14 mm (Positive)

Interpretation of TST

- It is important to note that redness is not measured.
- A tuberculin reaction is classified as positive based on the diameter of the induration in conjunction with certain patient-specific risk factors. In a healthy person whose immune system is normal, induration greater than or equal to 15 mm is considered a positive skin test.
- There are false positive reaction and false negative reaction to TST.
- People who have been infected with TB may not have a positive skin test (known as a false negative result) if their immune function is compromised by chronic medical conditions, cancer chemotherapy, or AIDS.
- Additionally, 10%-25% of people with newly diagnosed tuberculosis of the lungs will also have a negative result, possibly due to poor immune function, poor nutrition, accompanying viral infection, or steroid therapy.
- 1``Over 50% of patients with widespread, disseminated TB (spread throughout the body, known as miliary TB) will also have a negative TB test.

Interpretation of False-Positive Reactions

Some persons may react to the TST even though they are not infected with M. tuberculosis. The causes of these false-positive reactions may include, but are not limited to, the following:

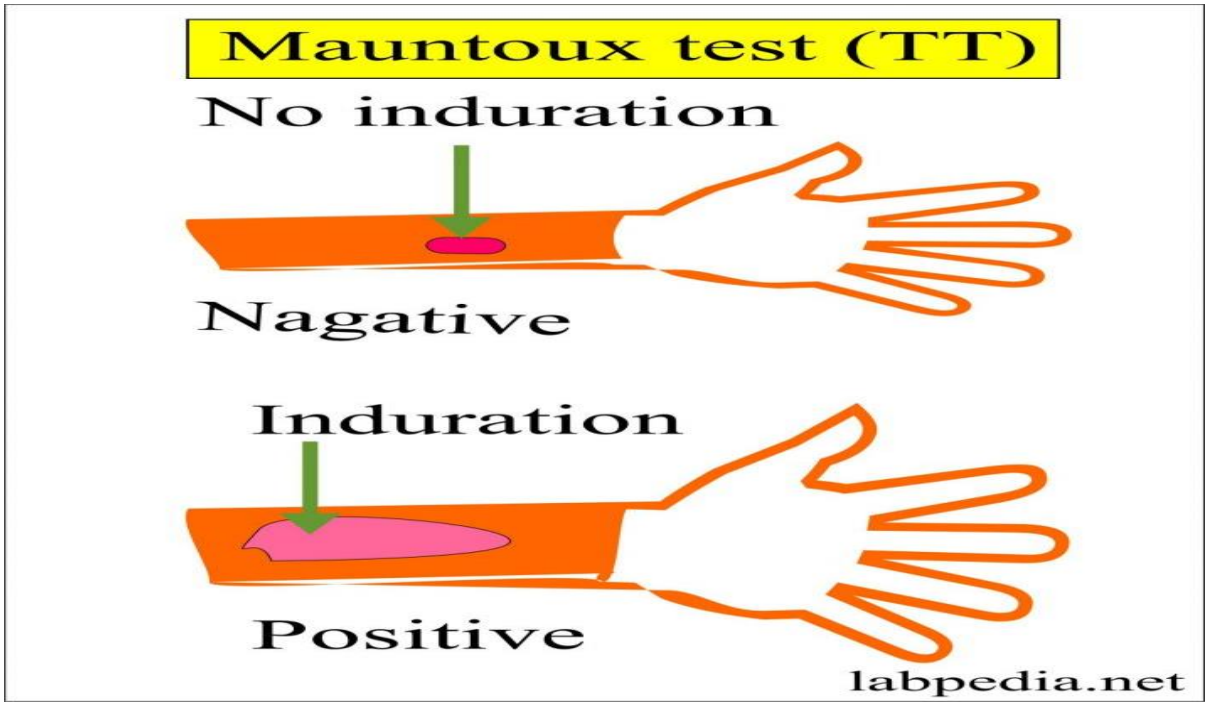
- Infection with nontuberculosis mycobacteria
- Previous BCG vaccination
- Incorrect method of TST administration

- Incorrect interpretation of reaction
- Incorrect bottle of antigen used

Interpretation of False-Negative Reactions

Some persons may not react to the TST even though they are infected with M. tuberculosis. The reasons for these false-negative reactions may include, but are not limited to, the following:

- Cutaneous anergy (anergy is the inability to react to skin tests because of a weakened immune system)
- Recent TB infection (within 8-10 weeks of exposure)
- Very old TB infection (many years)
- Very young age (less than 6 months old)
- Recent live-virus vaccination (e.g., measles and smallpox)
- Overwhelming TB diseasem, due to secondary immuno-compromized
- Some viral illnesses (e.g., measles and chicken pox)
- Incorrect method of TST administration
- Incorrect interpretation of reaction



First aid

It is an immediate and temporary treatment of a victim of sudden illness or injury while awaiting the arrival of medical aid. Proper early measures may be instrumental in saving life and ensuring a better and more rapid recovery.

First aid kit

Contents of first aid kit

1 –First-aid manual	10- Safety pins.
2-Sterile gauze pads of different sizes.	11- Antiseptic solution (like hydrogen peroxide).
3-Adhesive tape	12-Antibiotic ointment.
4- A splint.	13- Soap.
5-Acetaminophen and ibuprofen.	14-Tweezers.
6- Sharp scissors.	15-Disposable cold packs.
7-Thermometer	16-Plastic non-latex gloves (at least 2 pairs).
8-Flashlight and extra batteries.	17- A blanket.
9-List of emergency phone numbers.	

Epistaxis

♦ Definition:

It is escape of blood out the blood vessels it can be internal or external. It is occur when a small vein, along the lining of nose, bursts and it is common in children/elderly.

♦ Common causes of nosebleeds include:

- Dry, heated, indoor air, which dries out the nasal membranes and causes them to become cracked or crusted and bleed when rubbed.
- Dry, hot, low-humidity climates, which can dry out the mucus membranes.
- Colds (upper respiratory infections) and sinusitis, especially episodes that cause repeated sneezing, coughing, and nose blowing.
- The insertion of a foreign object into the nose (mostly in children).
- Injury to the nose and/or face.
- Allergic and non-allergic rhinitis (inflammation of the nasal lining).
- Use of drugs that thin the blood (aspirin, non-steroidal anti-inflammatory medications, warfarin, and others), and high blood pressure.
- Chemical irritants (e.g., cocaine, industrial chemicals, others).
- Deviated septum (an abnormal shape of the structure that separates the two sides of the nose).
- Tumors or inherited bleeding disorders (rare).
- Facial and nasal surgery.

Risk factors for nose bleeding: -

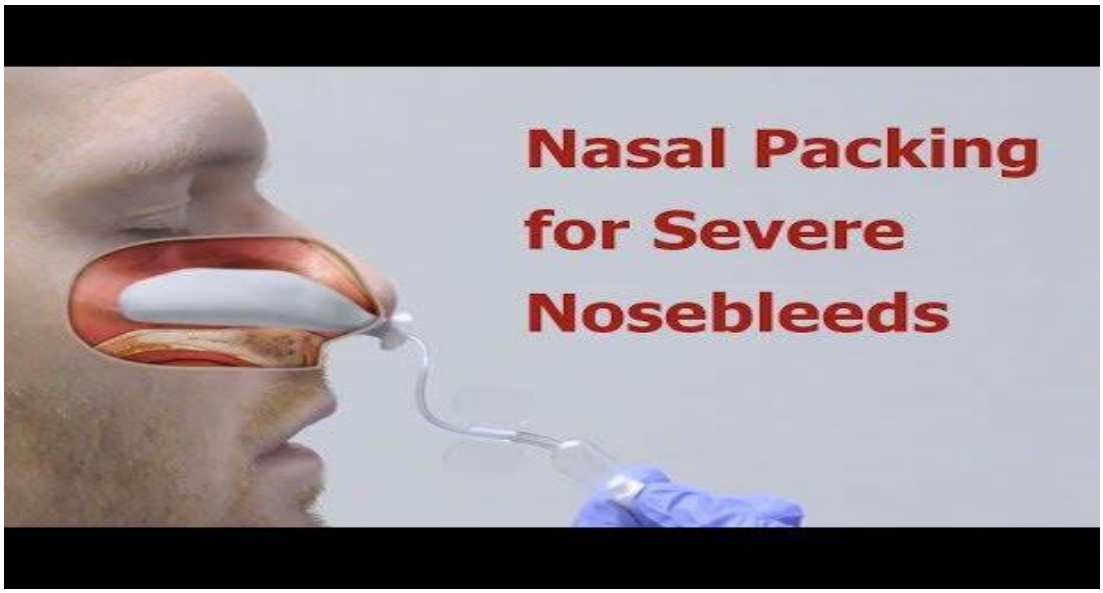
Anyone can get a nosebleed. Most people will have at least one in their lifetime. However, there are people who are more likely to have a nosebleed. They include:

- Children between ages two and 10. Dry air, colds, allergies and sticking fingers and objects into their nose make children more prone to nosebleeds.
- Adults between ages 45 and 65. Blood may take longer to clot in mid-life and older adults. They are also more likely to be taking blood thinning drugs (such as daily aspirin use), have high blood pressure, atherosclerosis (hardening of the walls of arteries) or a bleeding disorder.
- Pregnant women. Blood vessels in the nose expand while pregnant, which puts more pressure on the delicate blood vessels in the lining of the nose.
- People who take blood-thinning drugs, such as aspirin or warfarin.
- People who have blood clotting disorders, such as hemophilia .

♦ Treatments, depending on the cause, could include:

- **Cauterization:** The application of a chemical substance (silver nitrate) or heat energy (electrocautery) to seal the bleeding blood vessel.

- **Nasal packing:** The placement of strips of gauze into the nasal cavity to create pressure on the bleeding site. Alternately, other materials that promote clotting may be used.

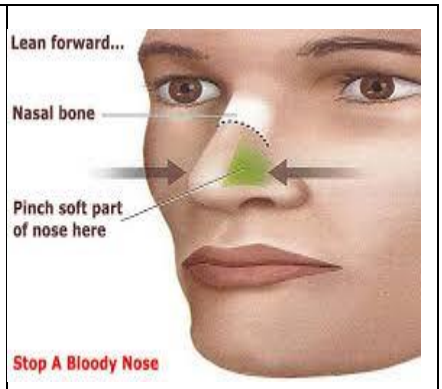


- **Medication adjustments:** Reducing or stopping the amount of blood thinning medications can be helpful. In addition, medications for controlling blood pressure may be necessary.
- **Foreign body removal**.
- **Repair of nasal fracture.**

- **Correction of a deviated septum.**

Procedures of: First Aid at School for nose bleeding (Epistaxis)

First Aid At School For Nose Bleeding (Epistaxis) (Some of the following steps/tasks should be performed simultaneously)	
Step/Task	**Rational**
1- Prepare necessary equipment and supplies.	To save time and facilitates accurate skill performance when equipment was available.
2-Ensure the equipment is functioning properly.	To identify efficiency of equipment
3- Place the child in appropriate position	Proper positioning is important for a patient's comfort and well
4- Maintain body mechanic	Correct application of body mechanics prevents unnecessary fatigue and strain, saves energy.
5- Have an assistant.	To help the nurse if needed
Immediate First Aid for Nose Bleeding (Epistaxis):	
6- Wash hand	
7- Sit the student erect with the head tilted forward slightly.  	Sitting forward will prevent the swallowing blood
8-Apply aseptic techniques	

9- Apply simple pressure to the sides of the nose by grasping it with thumb and forefinger (pinch the soft part of the nose).	
10- Place cold packs on the nose.	
11- Release the pressure after 10 minutes. If the bleeding has not stopped, continue pressure for a further 10 minutes, or as necessary	
12- Clean the nose by wet cotton after bleeding stopped.	
13- When the bleeding stops, tell the student to avoid exertion.	
14- Seek medical aid. If after 30 minutes the bleeding persists or recurs	
Post Procedure Activities:	
15- Provide reassurance for the child	
16- Measure Vital Signs.	
17- Record the results in complete, concise and accurate manner in the child file.	
18- Reporting of any abnormality.	
19- Wash hands after removing equipment.	

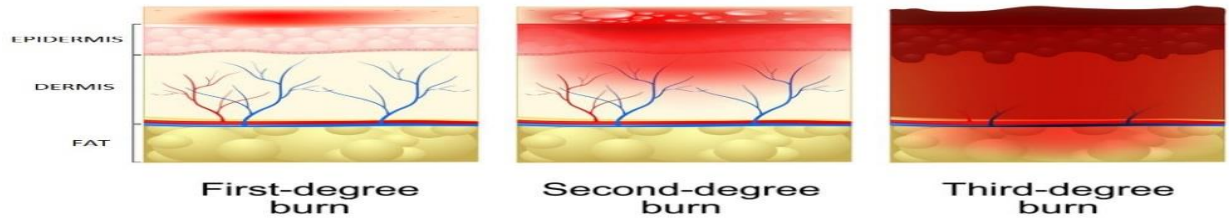
Burns

Burns are a global public health problem, accounting for an estimated 180 000 deaths annually. The majority of these occur in low- and middle-income countries. The rate of child deaths from burns is currently over 7 times higher in low- and middle-income countries than in high-income countries.

A burn: is an injury to the skin or other organic tissue primarily caused by heat or due to radiation, radioactivity, electricity, friction or contact with chemicals.

Classification of burns:

Burns are classified as first- second- or third-degree depending on how deep and severe they penetrate the skin's surface.



- **First-degree (superficial) burns**:

First-degree burns affect only the epidermis, or outer layer of skin. The burn site is red, painful, dry, and with no blisters. Mild sunburn is an example. Long-term

tissue damage is rare and usually consists of an increase or decrease in the skin color.

- **Second-degree (partial thickness) burns**:

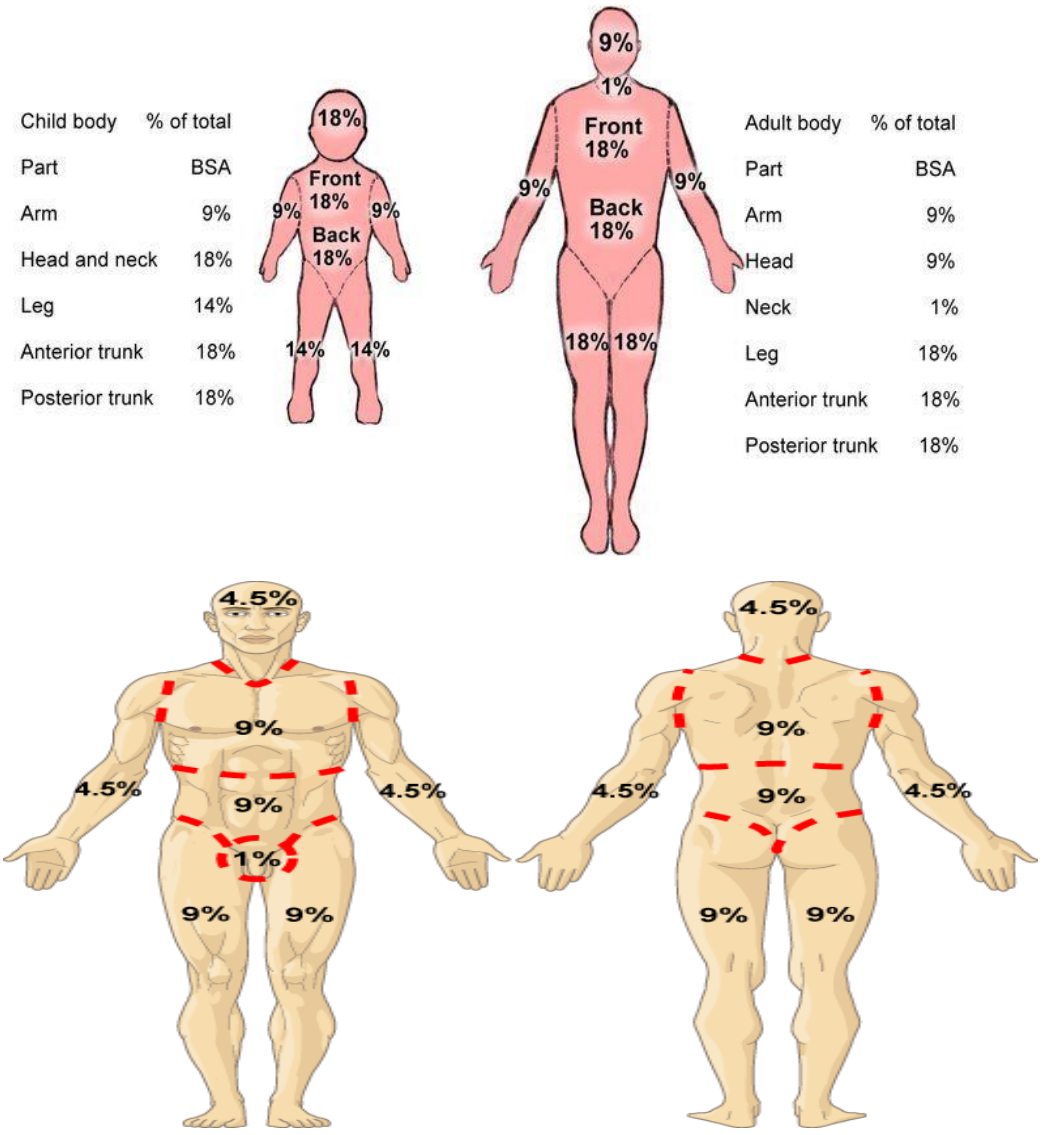
Second-degree burns involve the epidermis and part of the dermis layer of skin. The burn site appears red, blistered, and may be swollen and painful.

- **Third-degree (full thickness) burns:**

Third-degree burns destroy the epidermis and dermis. Third-degree burns may also damage the underlying bones, muscles, and tendons. The burn site appears white or charred. There is no sensation in the area since the nerve endings are destroyed.

- The **rule of nines** is a tool used in pre-hospital and emergency medicine to estimate the total body surface area (BSA) affected by a burn. In addition to determining burn severity, the measurement of burn surface area is important for estimating patients' fluid requirements and determining hospital admission criteria.

Body Part	Estimated BSA	
	Adults	**Children**
Entire left arm	9%	9%
Entire right arm	9%	9%
Head & neck	9%	18%
Entire chest	9%	9%
Entire abdomen	9%+ 1% (Genitals)	9%
Entire back	18%	18%
Entire left leg	18%	14%
Entire right leg	18%	14%

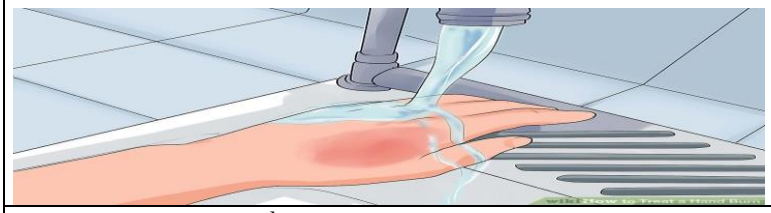


Causes of burns and treatment

Burns can be separated into five different areas, the treatment for each burn will differ slightly depending on the cause.

- Electrical burns:
- Dry heat burns:
- Wet heat burns (scalds):
- Chemical burns:
- Radiation (sun) burns:

First aid at School for Burn (Some of the following steps/tasks should be performed simultaneously)	
Step/Task	**Rational**
1- Prepare necessary equipment and supplies.	To save time and facilitates accurate skill performance when equipment was available.
2-Ensure the equipment is functioning properly.	To identify efficiency of equipment
3- Place the child in appropriate position	Proper positioning is important for a patient's comfort and well
4- Maintain body mechanic	Correct application of body mechanics prevents unnecessary fatigue and strain, saves energy.
5- Have an assistant.	To help the nurse if needed
Immediate First Aid for Burn:	
6- Wash hand.	
7- Apply aseptic techniques	To avoid spread of microorganism
8- Reassure the child.	
9- Remove hot or burned cloth.	

1- If burn is 1st degree - Put cold or tape water only. - Cover the burn with a nonstick, sterile bandage. - Protect the area from the sun 	Cooling the burn will reduce pain, swelling and the risk of scarring. The sooner and longer a burn is cooled with cold running water, the less the impact of the injury.
11- If burn is 2nd degree - Use saline or tap water with Antiseptic solution. - Remove jewelry or clothing that could become too tight if the area swells. - Don't break blisters. - Cover loosely with sterile, nonstick bandage - Separate burned toes and fingers with dry, sterile dressings. 12- If burn is 3rd degree - Do not soak the burn with water. - Do not remove clothing that is stuck to the area. - Cover the area with a sterile bandage or a clean loose cloth.	
13- Check vital signs.	
14-Assess the child for chilling, fatigue consciousness.	
15- Seek medical aid.	
Post Burn procedures:	
16- Provide reassurance for the child	
17- Measure Vital Signs.	
18- Record the results in complete, concise and accurate manner in the child file.	
19- Reporting of any abnormality.	
20- Wash hands after removing equipment.	

Fracture

♦ **Definition of fracture:**

A bone fracture is a medical condition in which there is a partial or complete break in the continuity of a bone. In more severe cases, the bone may be broken into several pieces.

♦ **Causes of fracture:**

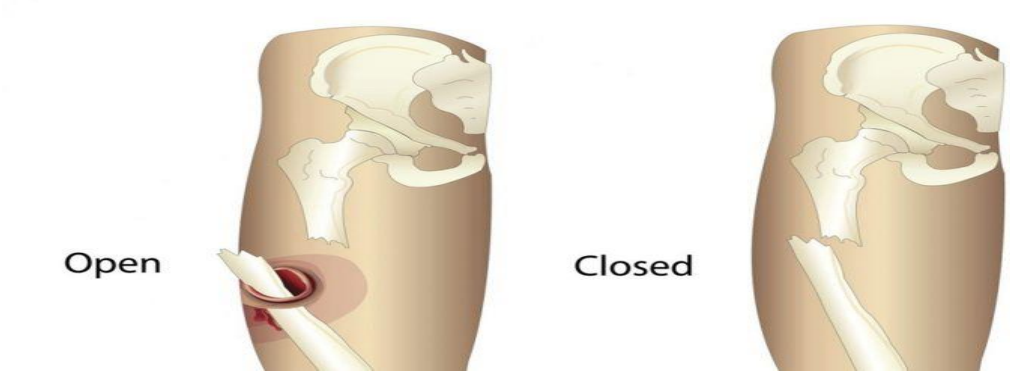
❖ **Different types of force can cause injury to the bones, muscles and joints.**

- **Direct force damage** will result at the location of the force, such as a kick or blow.
- **Indirect force damage** will result away from the point where the force was applied, for example a fractured collar bone may result from landing on an outstretched arm.
- **Twisting force damage** will result from torsion force on the bones and muscles, for example a twisted ankle.
- **Violent movement damage** will result from sudden, violent movements, for example a knee injury from violently kicking.
- **Pathological damage** will result from the bones becoming weak or brittle due to disease or old age.

♦ **Types of fractures:**

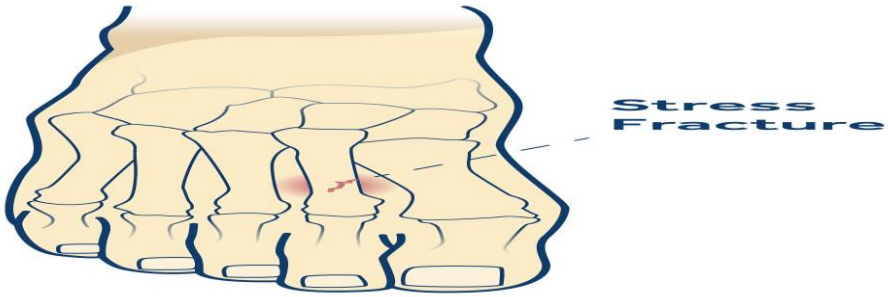
- ***Open fracture***: where the skin is torn and penetrated by the damaged bone resulting in an open wound.

- ***Closed fracture***: is when the bone breaks but there is no puncture or open wound in the skin.

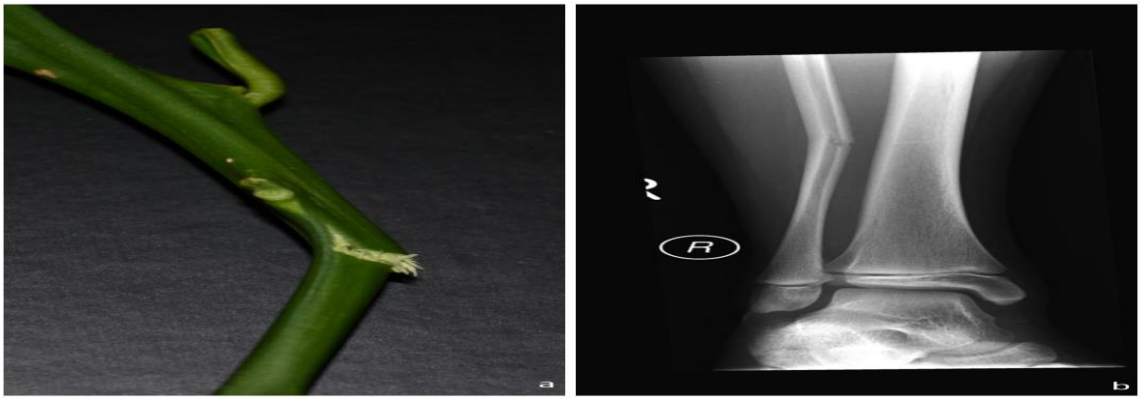


- ***Complicated fractures:*** Associated injury to a major nerve, blood vessel, or vital organs

- ***Stress fracture:*** tiny cracks in a bone. They're caused by repetitive force, often from overuse — such as repeatedly jumping up and down or running long distances. Stress fractures can also develop from the normal use of a bone that's weakened by a condition such as osteoporosis.



- ***Greenstick fracture:*** occurs when a bone bends and cracks, instead of breaking completely into separate pieces. The fracture looks similar to what happens when you try to break a small, "green" branch on a tree. Most greenstick fractures occur in children younger than 10 years of age.



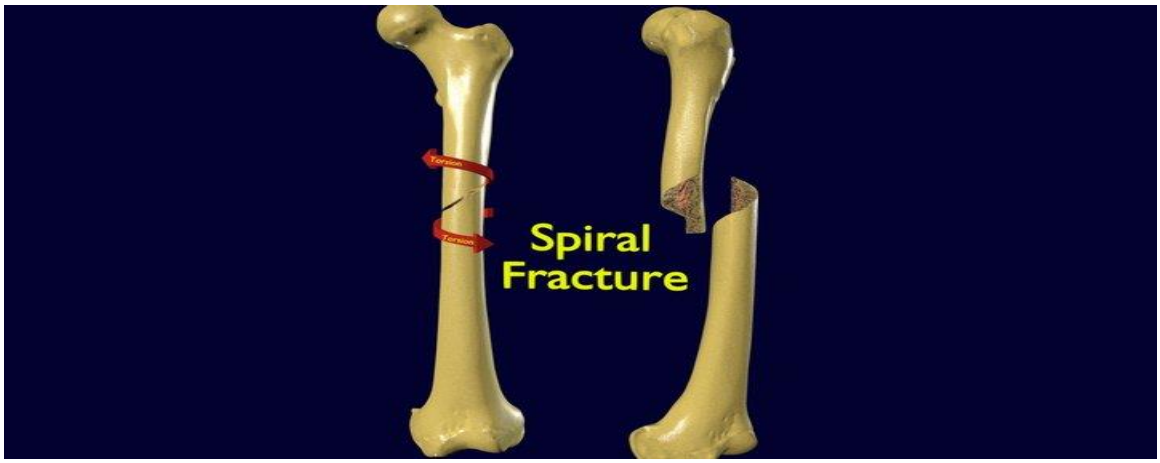
Transverse Fracture

Transverse fractures are breaks that are in a straight line across the bone. This type of fracture may be caused by traumatic events like falls or automobile accidents.

Spiral Fracture

As the name suggests, this is a kind of fracture that spirals around the bone. Spiral fractures occur in long bones in the body, usually in the femur, tibia, or fibula in the legs. However, they can occur in the long bones of the arms. Spiral

fractures are caused by twisting injuries sustained during sports, a physical attack, or an accident.



Oblique Fracture

An oblique fracture is when the break is diagonal across the bone. This kind of fracture occurs most often in long bones. Oblique fractures may be the result of a sharp blow that comes from an angle due to a fall or other trauma.

♦ Signs & symptoms of fractures:

1- Severe pain.
2- Difficulty in movement.
3- Swelling/ bruising / bleeding.
4- Deformity / abnormal twist of the limb.

5- Tenderness on applying pressure. This occurs at the site of the injury.

6- Crepitus: This is the feeling, or sound, of bone grating on bone when the broken ends rub together.

Management of fracture

For injury to an upper limb:

• Carefully, and gently place the arm in a sling against the body. It is common to use a support sling for arm fractures. For collar bone fractures, it is common to use an elevated sling (keep the ca patient elbow down at their side when using an elevated sling for a fractured collar bone).

For injury to a lower limb:

• Keep the patient still, and ensure they are kept warm. Call an ambulance immediately.

• If there is any delay to the ambulance reaching the patients, immobilize the injury by gently bandaging the injured leg to the uninjured one.

• Check that their circulation has not been cut off beyond the injury and bandages. If necessary, loosen the bandages

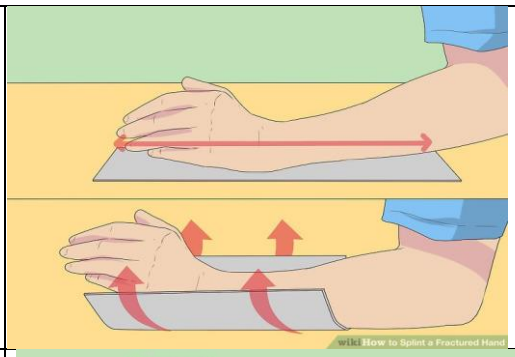
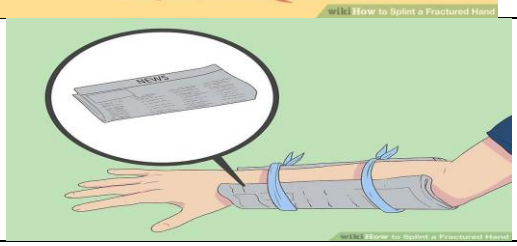
For spinal injury:

- If the patient is conscious tell them not to move and keep reassuring them.

- Do not allow the patient to move, keep them in the position you found them in until help arrives. They should only be moved if they are in severe and immediate danger.

- Call an ambulance immediately. Keep the patient still and warm until help arrives.

First Aid at School for fracture (Some of the following steps/tasks should be performed simultaneously)	
Step/Task	**Rational**
1- Prepare necessary equipment and supplies.	To save time and facilitates accurate skill performance when equipment was available.
2- Ensure the equipment is functioning properly.	To identify efficiency of equipment
3- Place the child in an appropriate position	Proper positioning is important for a patient's comfort and well
4- Maintain body mechanic	Correct application of body mechanics prevents unnecessary fatigue and strain, saves energy.
5- Have an assistant.	To help the nurse if needed
6- Explain the procedure to the child and the instructor.	Reduces anxiety and encourages cooperation
Immediate First Aid for fracture:	
7- Hand washing.	
8- Apply aseptic techniques	To prevent spread of microorganisms
9- Keep the child comfortable.	To avoid chock
10- Gentle handling of the fractured part.	

11- Place a splint under the fractured part	
12- Apply adequate supports before and after the fracture part	
13- Keep the child warm.	
14- **Do not**: • Attempt to set the bone in anatomical position. • Massage the affected area. • Move without support to broken bone. • Move joints above/below the fracture. • Give oral liquids/food.	
15- Assess the child for chilling, fatigue, and consciousness.	
Post fracture procedures:	
16- Provide reassurance for the child	
17- Measure Vital Signs.	
18- Recording of the results in complete and an accurate manner in the child's ,concise file.	An accurate written record detailing all aspects of patient monitoring is important because it contributes to the circulation of information amongst the different teams involved in the patient's treatment or care.
19- Reporting of any abnormality.	
20- Wash hands after removing equipment.	To prevent the risk of healthcare provider colonization or infection caused by germs acquired from the patient

Distance Vision Test

Definition

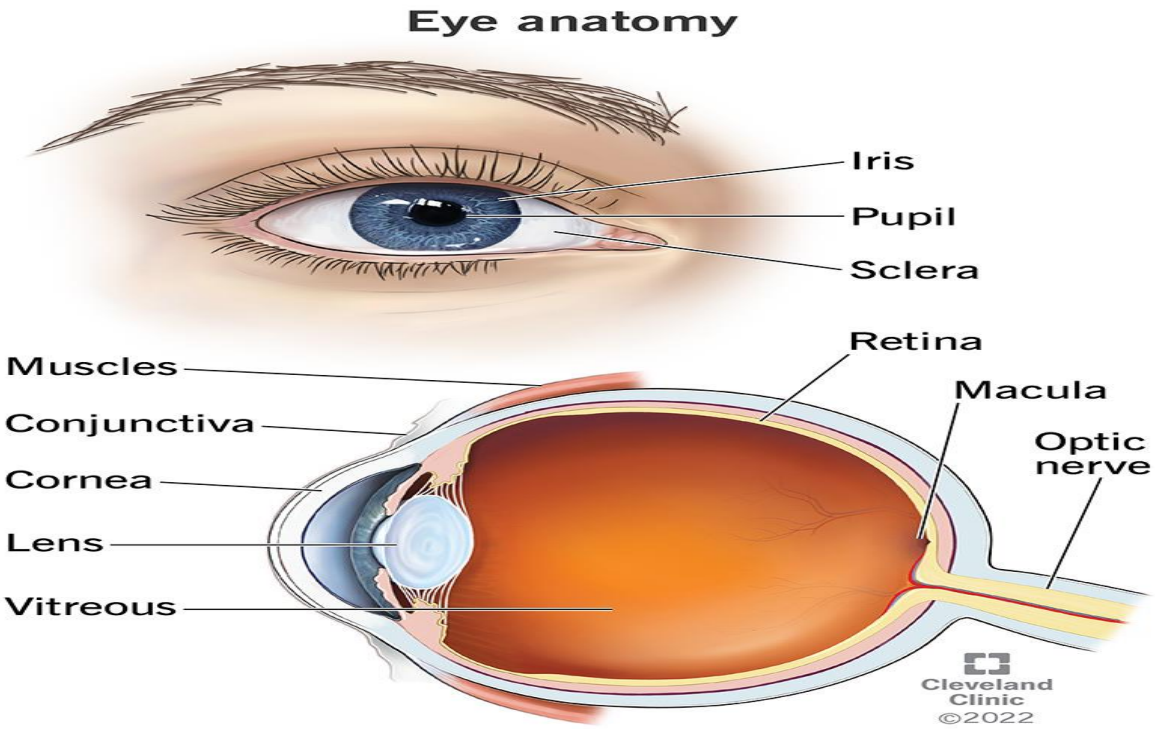
Distance Vision Test is standard test for measuring distance acuity by using eye chart as Snellen eye chart (Multi-letter Snellen chart, E or C Snellen chart).

Definition of visual acuity (VA)

Visual acuity is acuteness or clearness of vision, especially form vision, which is dependent on the sharpness of the retinal focus within the eye and the sensitivity of the interpretative faculty of the brain.

Definition of Snellen eye chart

A chart for testing used by eye care professionals and others to measure visual acuity., usually consisting of letters, numbers, or pictures printed in lines of decreasing size which a patient is asked to read or identify at a fixed distance. Snellen charts are named after the Dutch ophthalmologist Herman Snellen who developed the chart during 1862.



What is the normal vision?

To understand how certain problems can affect the vision, it's important to know how normal vision happens. The following things happen in this order:

1. Light enters the eye through the cornea. This is the clear, dome-shaped surface that covers the front of the eye.
2. From the cornea, the light passes through the pupil. The iris, or the colored part of your eye, controls the amount of light passing through.
3. From there, it then hits the lens. This is the clear structure inside the eye that focuses light rays onto the retina.
4. Next, light passes through the vitreous humor. This is the clear, jelly-like substance that fills the center of the eye. It helps to keep the eye round in shape.
5. Finally, the light reaches the retina. This is the light-sensitive nerve layer that lines the back of the eye. Here the image is inverted.

6. The optic nerve is then responsible for carrying the signals to the visual cortex of the brain. The visual cortex turns the signals into images (for example, our vision).

What about Snellen chart

The traditional Snellen chart is printed with eleven lines of block letters. The first line consists of one very large letter, which may be one of several letters, for example E, H, or N which called optotype. Subsequent rows have increasing numbers of letters that decrease in size. A patient taking the test covers one eye, and reads aloud the letters of each row, beginning at the top. The smallest row that can be read accurately indicates the patient's visual acuity in that eye.

A Snellen eye chart is used to determine how "normal" vision is. It sets a standard for what most people should be able to see when they stand 20 feet away from the chart (6 meters). 20/20 vision (6/6) just means that when you stand 20 feet (6 meters) away from a Snellen eye chart, client see what a normal human being can see. If client see 20/40 (6/9), that means that when you stand 20 feet away from the chart, client see what a normal person sees standing 40 feet away from it.

The higher the second number, the worse your vision is. 20/200 (6/ 60) (client see at 20 feet what a normal person sees at 200) is the number for legal blindness in the United States.20/20 vision isn't perfect, it's just "normal" client can have better vision than 20/20. If you have 20/10 you see at 20 feet what most people see at 10.

Indications

- To provide a baseline recording of visual acuity (VA)
- To aid examination and diagnosis of eye disease.

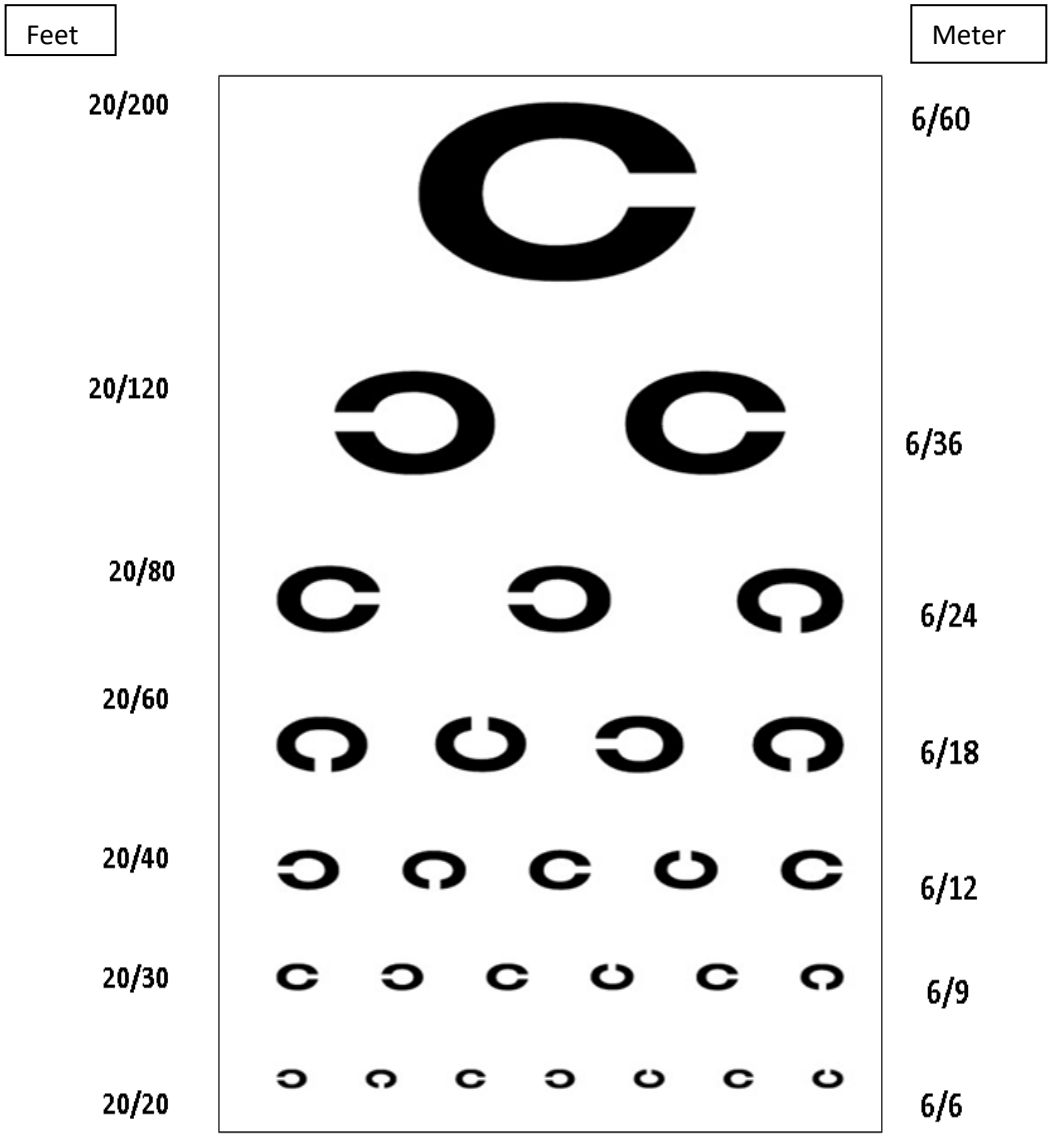
- For medico-legal reasons

Equipment

- Multi-letter Snellen chart or E or C Snellen chart or a chart with illustrations for patients who cannot read or speak
- Plain Occluder.
- A room that is well-lighted
- Patient's documentation
- Equipment for hand washing

Step/Task	**Rational**
1. Prepare necessary equipment	
2. Explain the procedure to the client.	Reassure the client
3. Wash and dry the occluder. If no plain occluder is available, ask the patient to wash his/her hands.	they will use a hand to cover one eye at a time
4. Perform the vision test in a room that is well-lighted	For accurate measurement
5. Use the Snellen chart containing various sized	
6. Position the client (6 meter) in front of the chart	
7. Direct him/her to cover the left eye start reading from the top of the chart to the smallest line of print possible. Then, repeat with the right eye.	
8. If the client wears glasses, first test with glasses, then without glasses	To measure distance vision with out and with glasses

9. Record the result in complete, concise, and accurate manner	
10. Report of finding to other health care provider (clinical instructor)	



Snellen chart

Heat stroke

Definition

Heat stroke is a form of hyperthermia or heat-related illness, an abnormally elevated body temperature with accompanying physical symptoms including changes in the nervous system function.

Symptoms of heat stroke

- Altered mental status (e.g., confusion, belligerence, or unconsciousness);
- Skin that is typically hot and dry;
- Rapid breathing and rapid pulse; and hypotension.
- Body temperature usually is elevated to 40.6° C (105° F) or greater. These high temperatures damage almost every organ in the body, including the liver, kidneys, lungs, heart, and muscle tissues. A grand mal seizure may be a lethal complication.

Equiptment

1. Fluids for rehydration

2. Ice or cold water

3. Towels, sheet, or washcloth

4. Fan, if available

5. Disposable non sterile gloves and an impermeable plastic trash bag

Procedure

- Prepare necessary equipment and supplies.
- Ensure the equipment is functioning properly
- Place the patient in appropriate position
- Maintain body mechanic
- Have an assistant.
- Explain the procedure to the patient
- Assess the patient's cardiopulmonary status, and evaluate for signs and symptoms of heat stroke.
- Measure vital signs.
- Open the patient's airway as necessary; keep the patient's head and shoulders elevated.

- Cool the patient's body as quickly as possible in the following manner:

  a-Remove the clothing; spray the entire body with water while air is passed across the body with fans or by other means.

  b-If necessary, immerse the patient in cold water or pack him or her in ice; place ice packs in the axillae and groin areas and fan the patient; wet down the body with sheets or towels (keep the clothes wet with cool water)
- Continue the cooling procedure until the patient's temperature drops to 102° F. Stop at this point to prevent seizures and hypothermia.
- Do not give the person anything per mouth.
- Activate Emergency medical services (EMS) if the patient experiences unstable cardiopulmonary status or decreased level of consciousness. Stay with the patient until EMS assumes responsibility.
- Notify the physician for further orders.
- Provide patient comfort measures.
- Clean and replace the equipment.
- Discard disposable items according to Standard Precautions.
- Refer the patient to hospital.
- Report and Document

First Aid for Heat stroke

Steps
1. Prepare necessary equipment and supplies.
2. Ensure the equipment is functioning properly
3. Place the child in appropriate position
4. Maintain body mechanic
5. Have an assistant.
6. Explain the procedure to the patient, instructor
Immediate First Aid for Heat stroke
7. Assess the patient's cardiopulmonary status, and evaluate for signs and symptoms of heat stroke.
8. Measure vital signs
9. Open the patient's airway as necessary; keep the patient's feet elevated.
10. Cool the patient's body as quickly as possible in the following manner: a. Remove the clothing; spray the entire body with water while air is passed across the body with fans or by other means. b. If necessary, immerse the patient in cold water or pack him or her in ice; place ice packs in the axillae and groin areas and fan the patient; wet down the body with sheets or towels (keep the clothes wet with cool water)
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14. Notify the physician for further orders.
Post procedures
15. Provide patient comfort measures.
16. Clean and replace the equipment.
17. Discard disposable items according to Standard Precautions.
18. Refer the patient to hospital.
19. Report and Document

Snake Bite

Signs and symptoms:

- The victim may experience severe pain and burning at the site immediately after the bite.
- Swelling can occur within 5 minutes and can involve the entire extremity.
- Discoloration and blood-filled blisters may develop.
- In severe cases, signs and symptoms of shock may occur; these may include cold and clammy skin, low blood pressure, rapid pulse, nausea and vomiting, and difficulty in breathing.

Equipment

- Soap and water
- Antiseptic or antibiotic ointment
- 4- x 4-inch gauze dressings
- Disposable nonsterile gloves and an impermeable plastic trash bag

Procedure

- Prepare necessary equipment and supplies.
- Ensure the equipment is functioning properly
- Place the patient in appropriate position
- Maintain body mechanic
- Have an assistant.
- Explain the procedure to the patient
- Assess the patient's cardiopulmonary status, and evaluate for signs and symptoms of snakebite.
- Measure vital signs.
- Be prepared to initiate CPR if necessary.
- Assess history and physical examination for snakebite. (Note the time the bite occurred. To be most effective, antivenom must be given within 2 hours from the time the bite occurred.) If possible, identify the snake species.
- Minimize the absorption of venom and the effects of shock in the following manner:
- Place the patient in a supine position; calm the patient and avoid manipulation of the bitten area

    - Immobilize the injury site if possible into a horizontal position, avoiding elevation or dependency
- **Do not do the following:**
    - Give stimulants or alcohol
    - Apply ice on the bite (ice will reduce blood flow and enhance necrotoxicity, thus increasing tissue damage)
    - Apply a tourniquet
    - Perform an incision and suction (this has limited use and may cause injury)
- Cover the wound with a loose dressing.
- Activate EMS for snakebite. Stay with the patient until EMS assumes responsibility.
- Notify the physician for further orders.
- Clean and replace equipment.
- Discard disposable items according to Standard Precautions.

First Aid for Snake Bite

Steps
1. Prepare necessary equipment and supplies.
2. Ensure the equipment is functioning properly
3. Place the patient in appropriate position
4. Maintain body mechanic
5. Have an assistant.
6. Explain the procedure to the patient
Immediate First Aid for Snake Bite
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13. Cover the wound with a loose dressing.
14. Activate EMS for snakebite. Stay with the patient until EMS assumes responsibility.
Post procedures
15. Notify the physician for further orders.
16. Clean and replace equipment.
17. Discard disposable items according to Standard Precautions.
18. Hand washing