

Introduction to Maternal Infant Young Children Nutrition
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Lecture - 58
Session - 12

Anthropometric Measurement

Hello, everyone. So, in this part, basically, we are going to show a tutorial on Anthropometric Measurement. What I have noticed, when I work in the field, that most of the Anganwadi workers, Asha workers, and in a lot of us we do not measure children's height, weight, length properly, and that is our bread and butter.

So, if you do not know how to take length of the child or the height of the child, we will not get correct data. And if you do not have correct data, we can basically misinterpret and we feel that your child is doing okay, or child is too short or underweight and we will get wrong results. So, here I am very, very particular about measurement of children's anthropometry.

Another thing is what we used to do in our program is we had two people actually, even three people do anthropometric measurements in the group of two, specifically for length, because what I noticed that the length measurement was very difficult for healthcare workers to do it, because you have to really keep the baby steady.

So, do think of, or watch that tutorial very carefully, and understand that how, when baby is measured, maybe its length is measured in a recumbent position, you want to keep the head steady, and at the same time, second person will press on the knee slightly to keep that joint steady, because if baby is moving that knee then you will have false length.

So, you want to make sure that you lock that knee, and then press it down not too hard, of course, is basically make sure that child do not move that leg. Another thing what I have also noticed in field when I work that many times when a child is, when we check the length of children, lot of this people, what they do is they do not check the length from the heel of the child, heel of the foot, they check it basically from the toes, so you take the length basically from the heel so make sure that your length, you take it from the heel and not from the toes. So, that is another important point that I wanted to show.

Another thing, which is also important about the checking the weight of the baby, so when you are checking the weight of the baby, you want to make sure that you remove too many clothes, do not put on too many clothes remove blanket, remove extra layers, if it is too cold, then maybe baby can wear a little onsie or one little small jhabla we call it, but avoid making child wear too many clothes is specifically in first two weeks of age because we want to see correct weight gain, because your decision will based on the weight gain of the child, so that is what I wanted to mention. And thank you so much and watch it properly and, teach others also how to measure.

One more point before I leave, is I wanted to also stress on when you are checking the measurement, say when you are checking the height of the child, so that when you are looking at the height, it should be at the eye level. You should not be looking from top or you are not you should not be looking from the bottom the height. So, make sure that when you are checking the length, how many centimeters or how many inches child is it should be at the eye level. So, that one is important, so thank you so much, and just definitely go ahead and teach others also. Thank you.

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Measurement of Children's Weight and Height

Spoken Tutorial Project

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YouTube Channel: Health Spoken Tutorial - IIT Bombay

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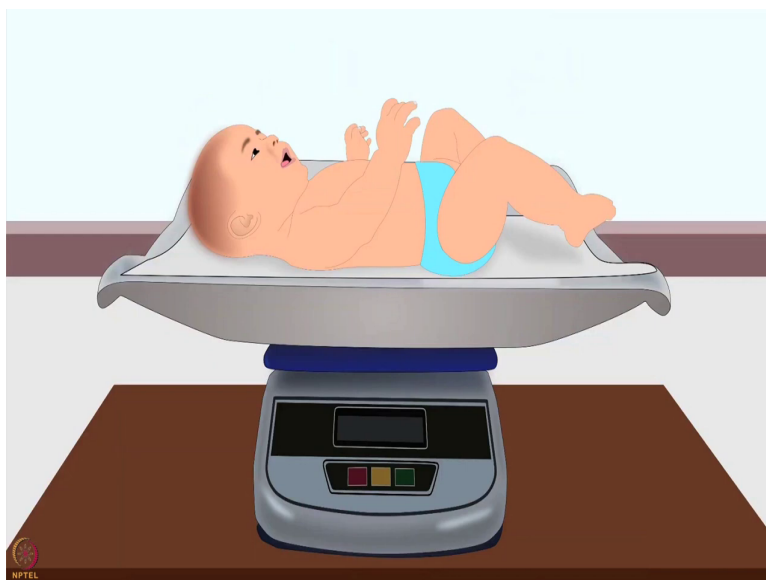
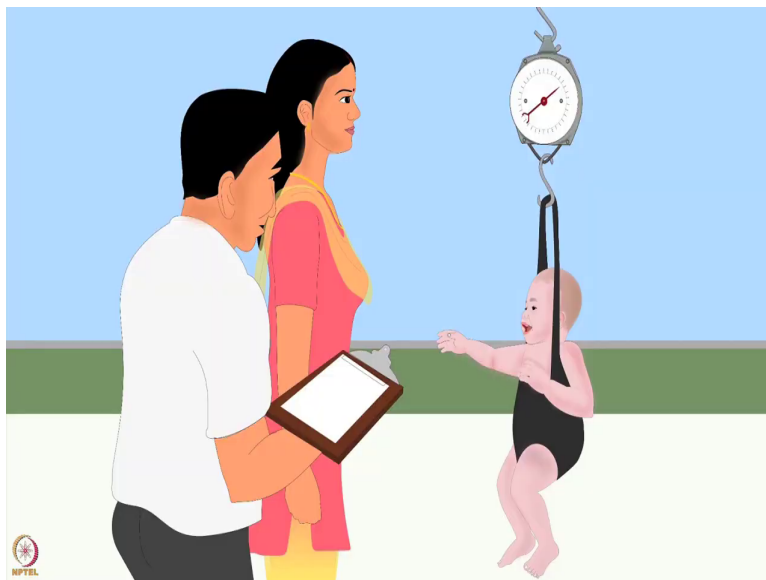
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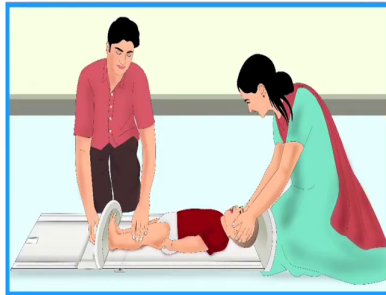
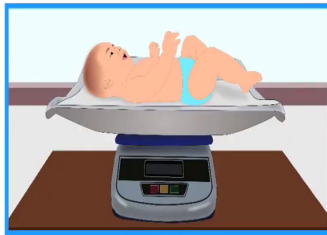
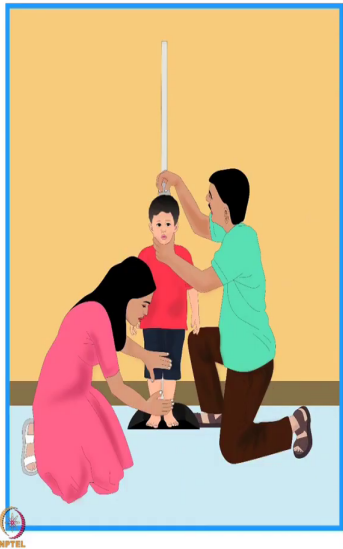
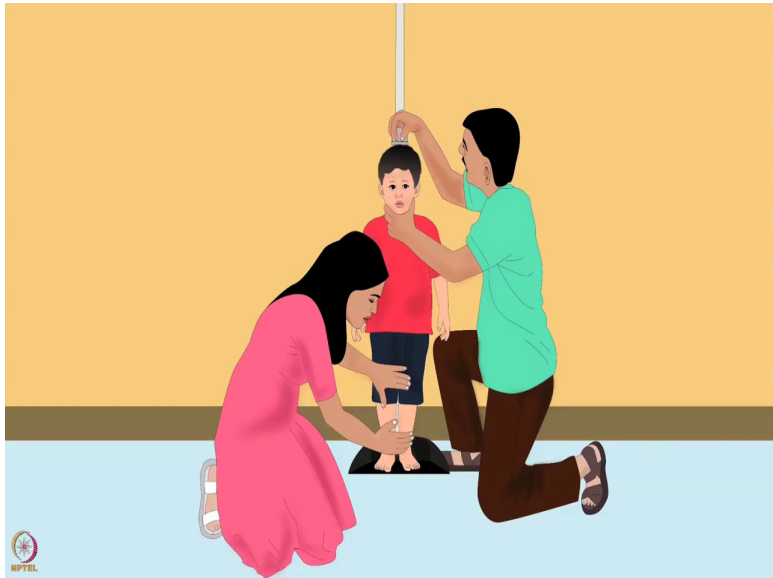
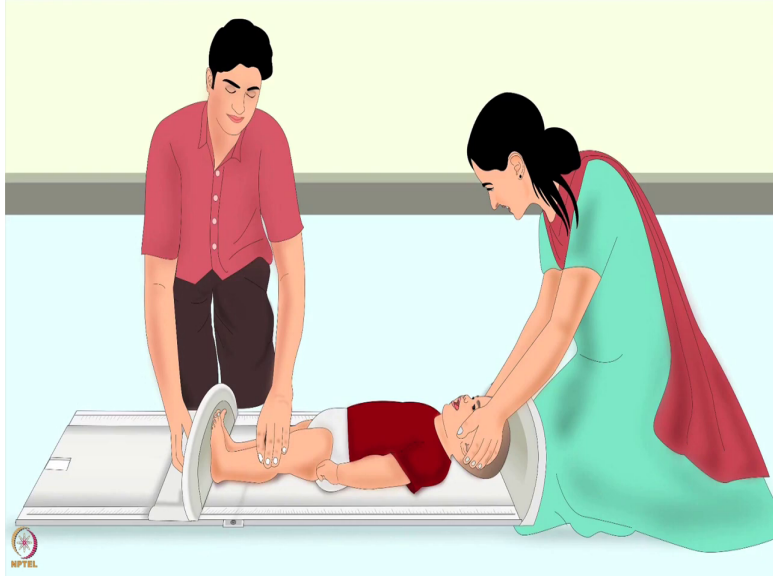
5 April 2022



Tasneem Shaikh

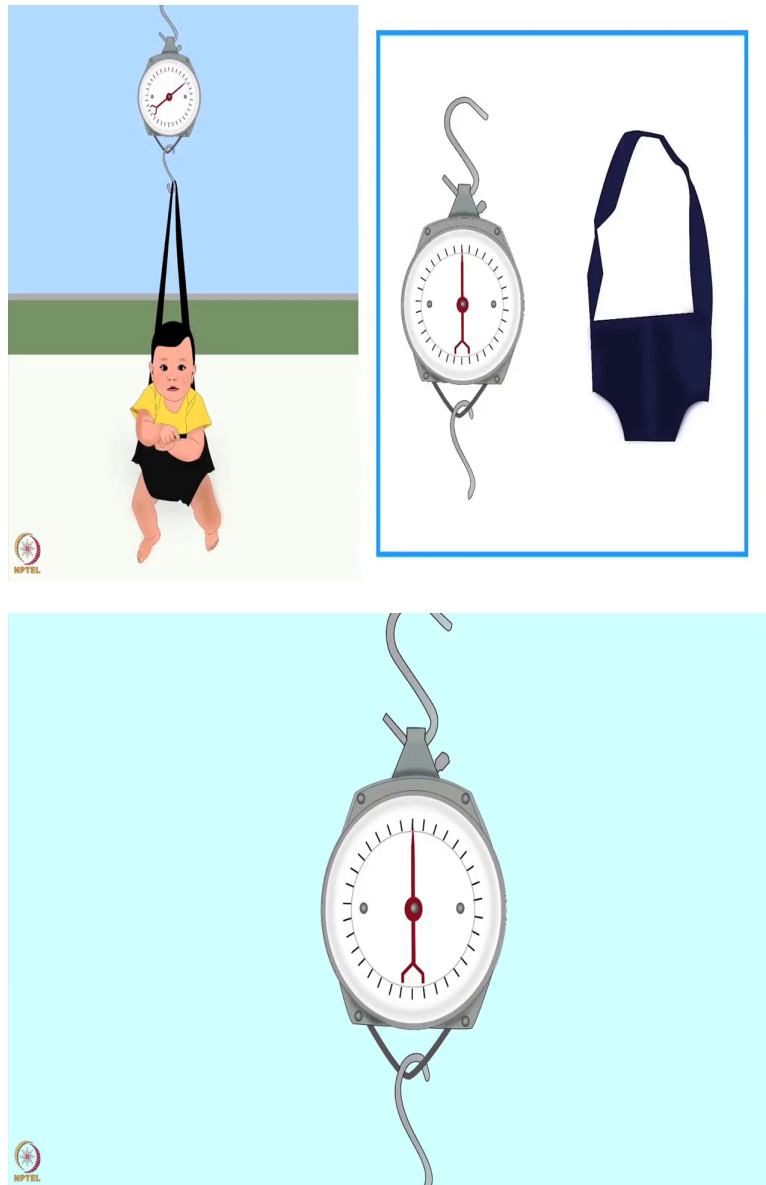
Measurement of Children's Weight and Height

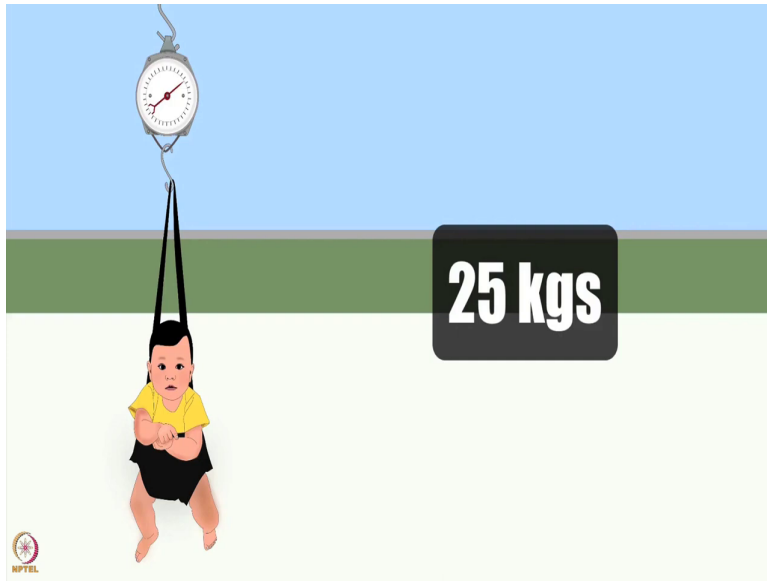


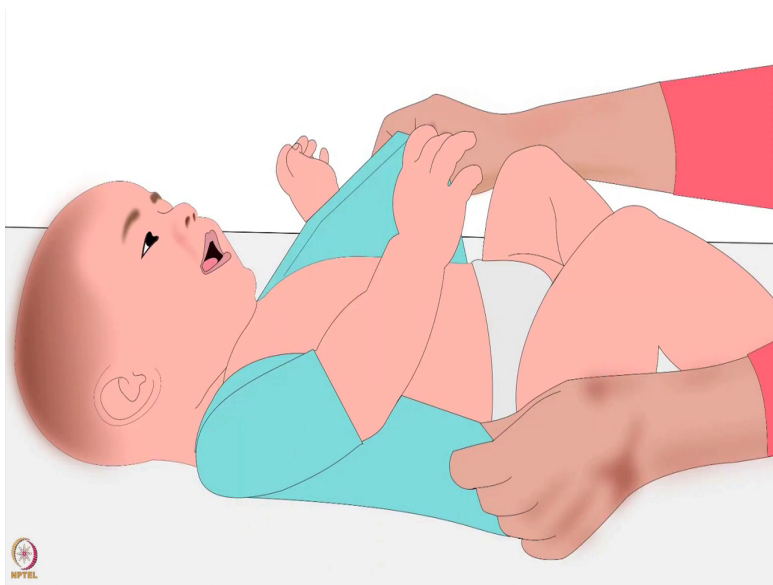
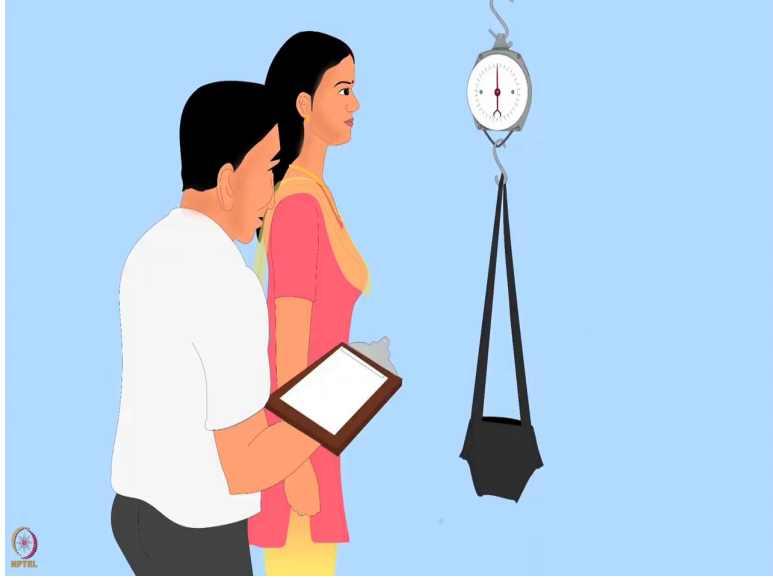


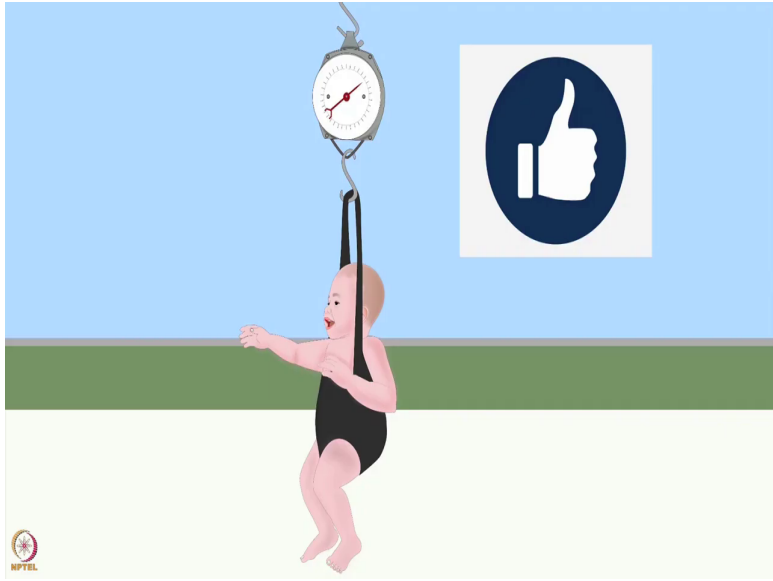
Welcome to the spoken tutorial on the measurement of children's weight and height. In this tutorial, we will learn how to measure a child's weight using the salter scale; how to measure a child's weight using a digital scale; how to measure a child's length or height. Anthropometry is the most frequently used method to assess nutritional status.

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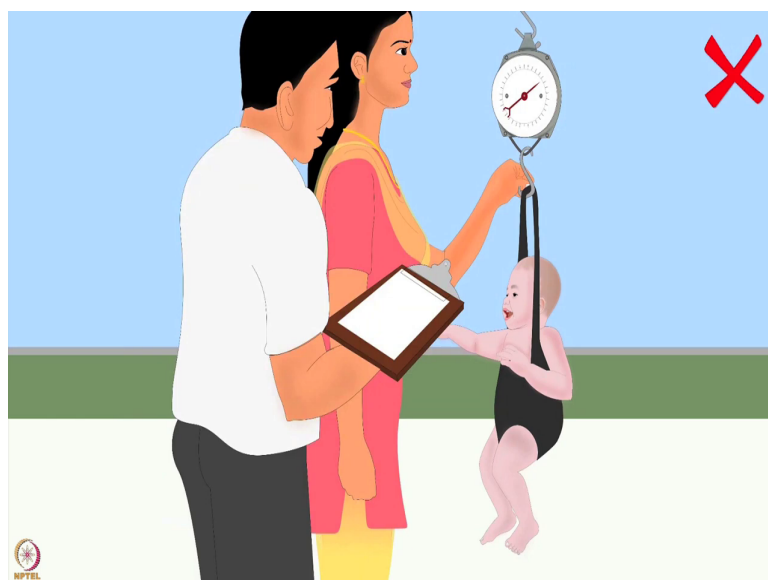


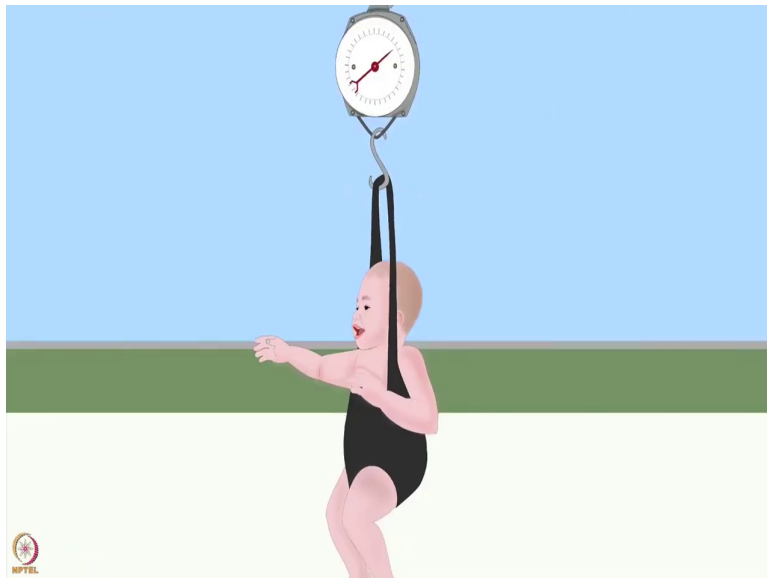
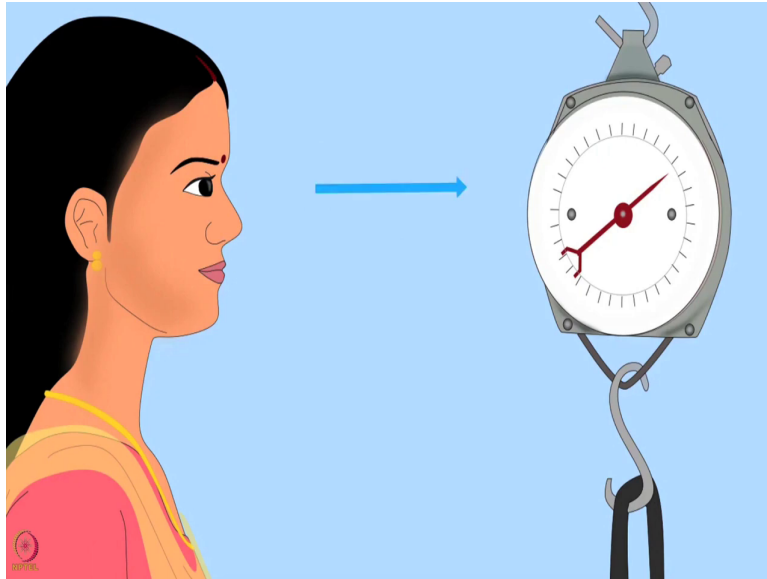


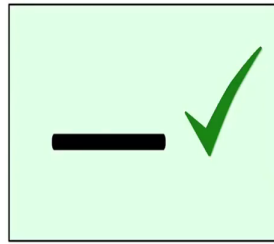


Let us learn how to measure weight using a salter scale. Salter scale is a spring hanging scale. It can weigh up to 25 kgs. To measure weight, you will need weighing pants or bucket. In this tutorial, we will be using weighing pants. Before weighing the baby, attach the pants to the scale. Adjust the scale to 0. Then remove the pants from the scale. Undress the baby. It is best to weigh the baby without any clothes. Now, put your hands through the open areas of pants legs. Gently grasp the baby's feet and put the baby in the pants. Now, attach the pants to the scale in a way that the baby hangs freely.

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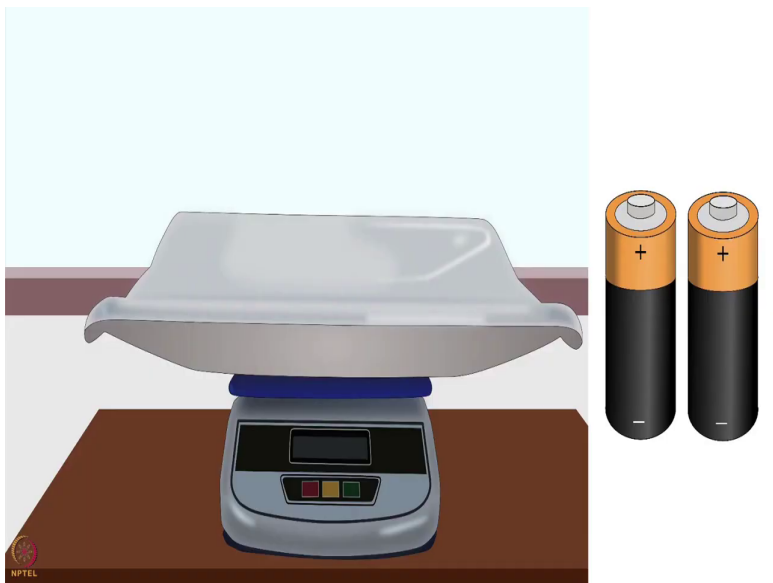
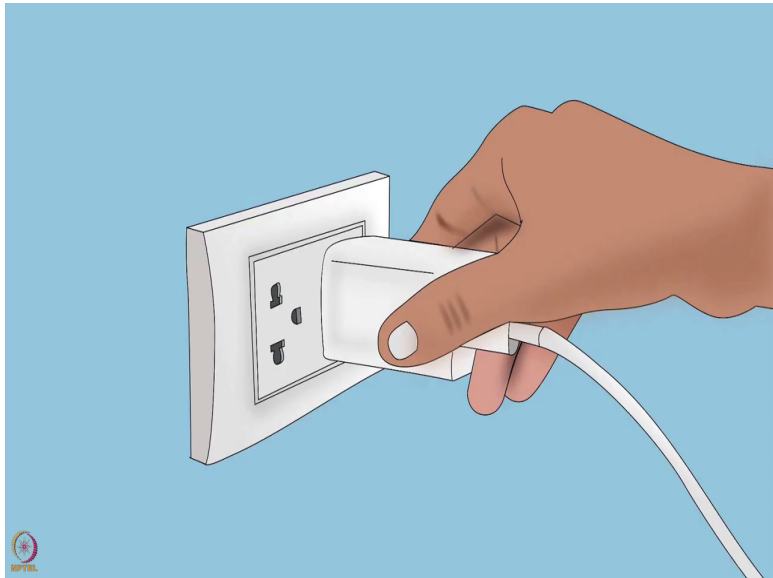
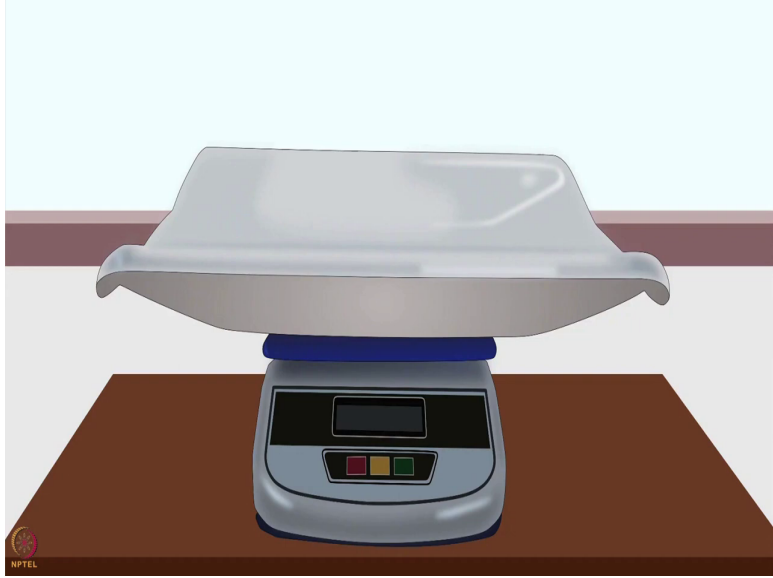


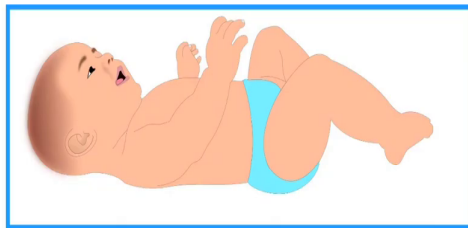
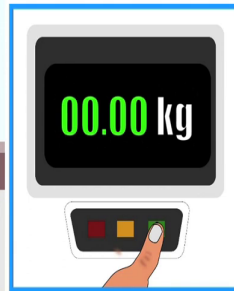
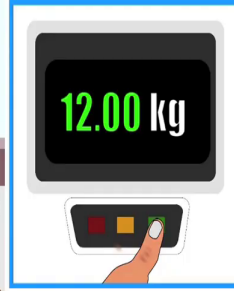


Make sure the baby does not touch anything. Do not touch the scale or the baby. Stand in front of the scale so that the pointer is at your eye level. Wait till the child stops moving. Otherwise, the needle will move when reading the weight. When the child is steady, read the weight on the scale. Read it up to the nearest 100 grams mark. Write down the weight immediately so you do not forget it. The scale must be checked every day by using a known weight. Do not forget to re adjust the scale to 0 before every weighing.

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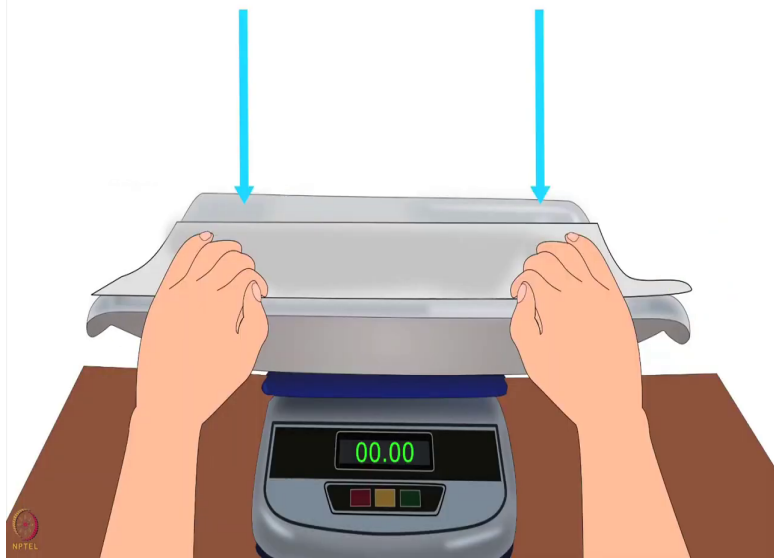
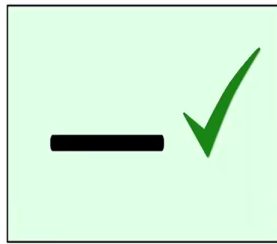




Next, let us learn how to measure weight using a baby digital scale. Clean the tray. Put the weighing scale on a flat, stable surface like a table or a platform. Connect the power plug. If the scale runs on batteries, put the batteries in it. Switch it on, the digital display will show some number. Adjust the digital display to 0 by manually adjusting the knob. Some weighing scales have automatic 0 display. Please a clean and dry towel or paper on the tray. This will reduce the chances of a drop in the baby's body temperature. It will also prevent the transfer of infections. Undress the baby.

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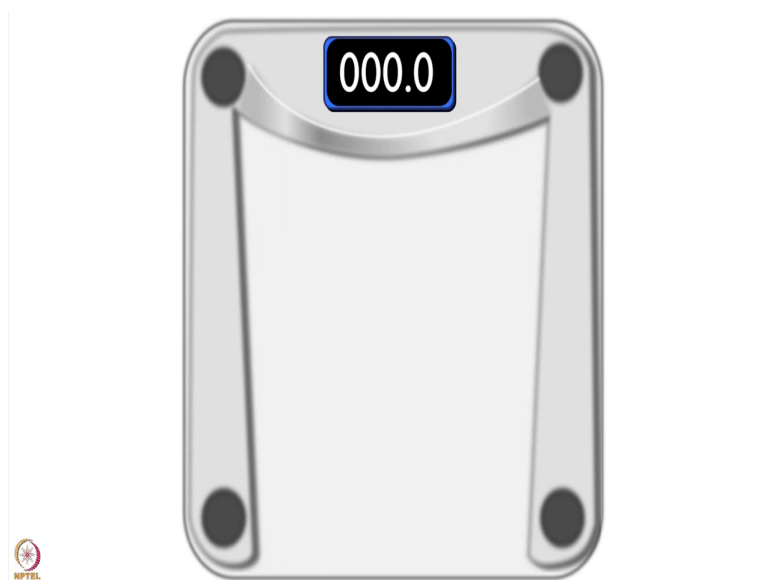


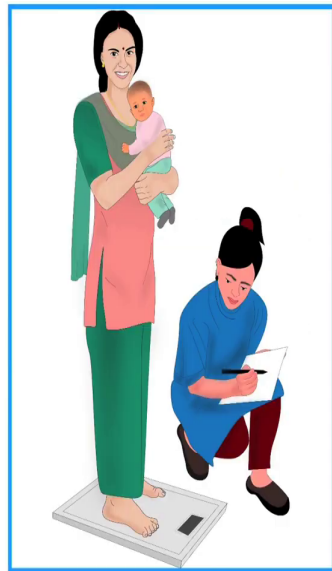
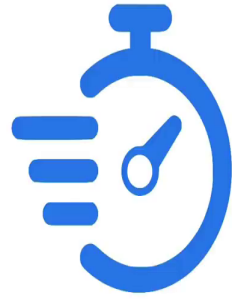


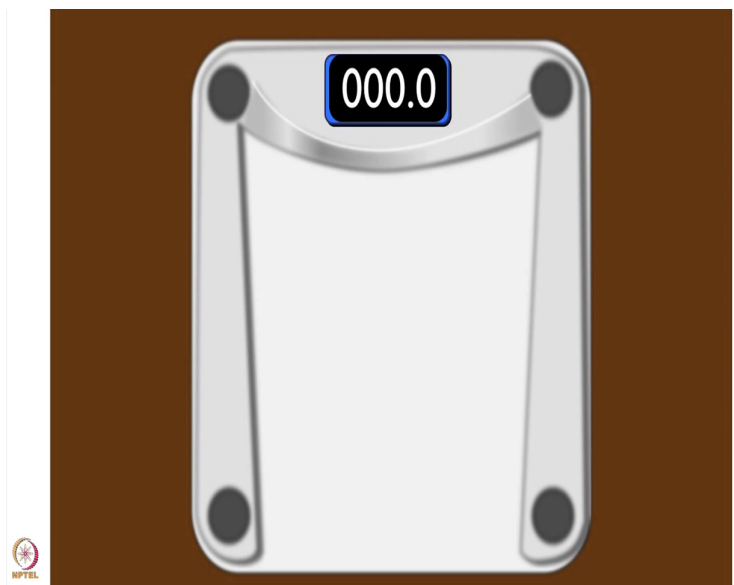


Place the baby on the towel in the middle of the tray. Note the reading on the digital display. Write it down. Switch the machine off after use. Remember to use a separate clean and dry towel for each baby. Check the accuracy of the weighing scale with standard known weights every week. Do not press the weighing tray with your hand it could damage the weighing machine.

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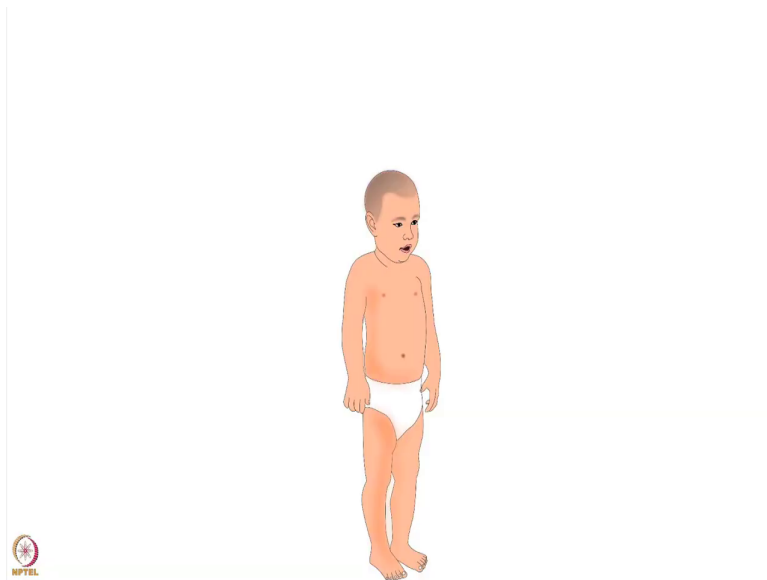
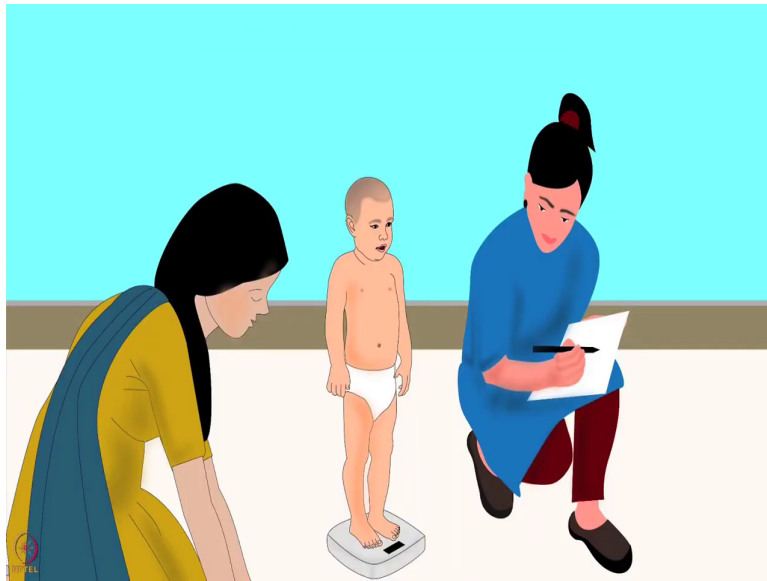


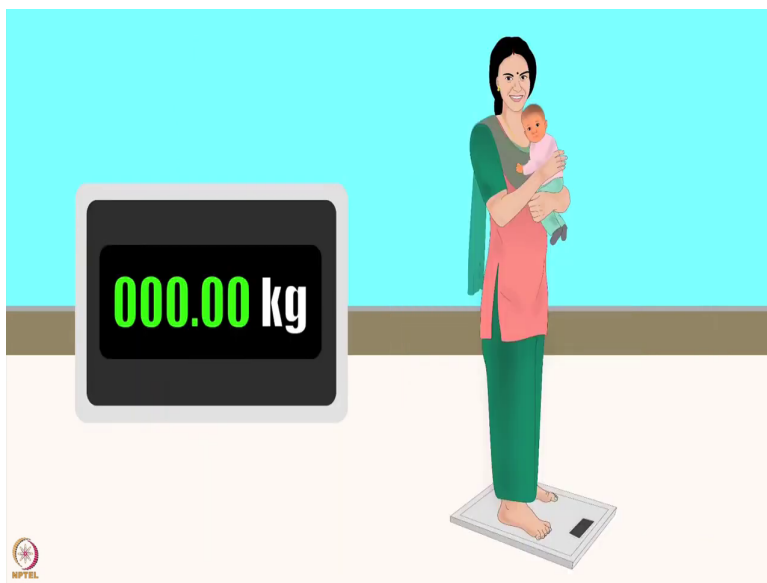
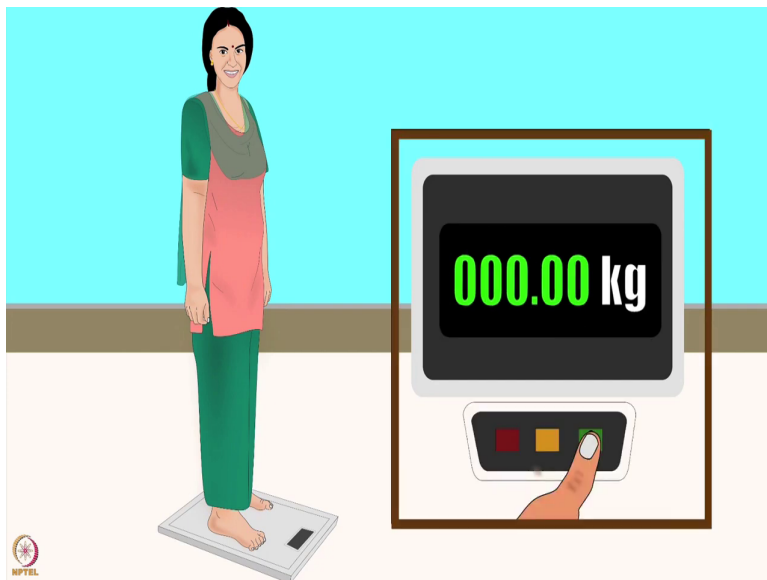
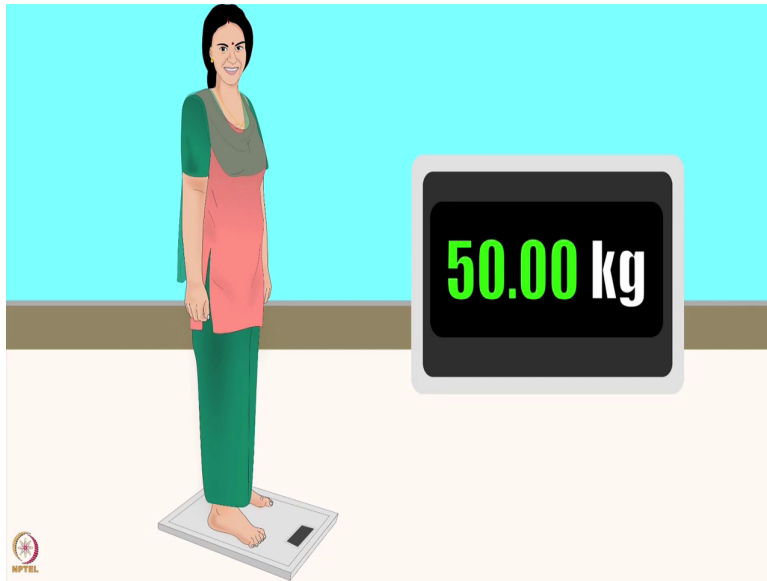


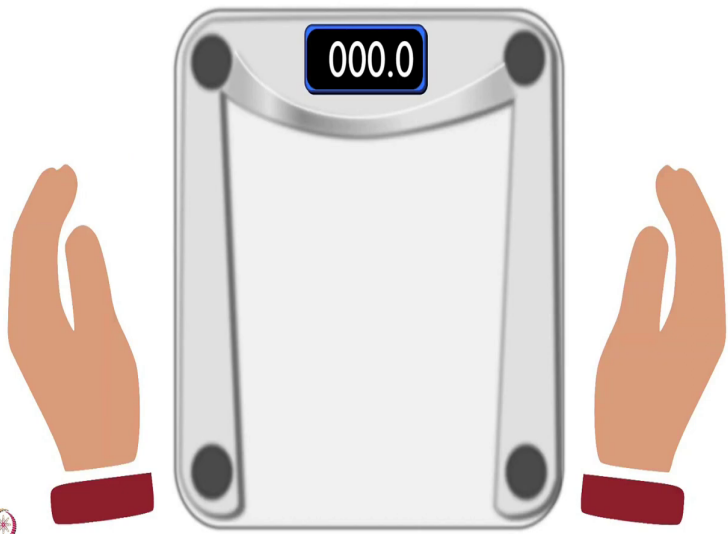
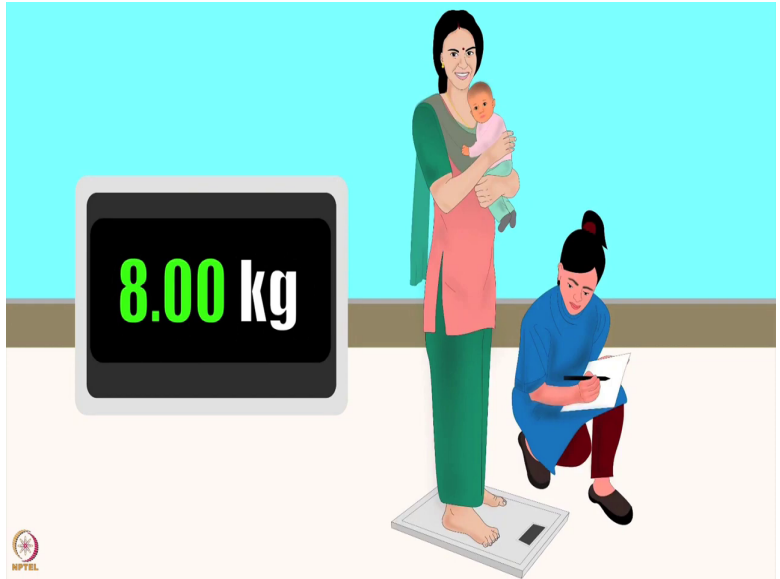


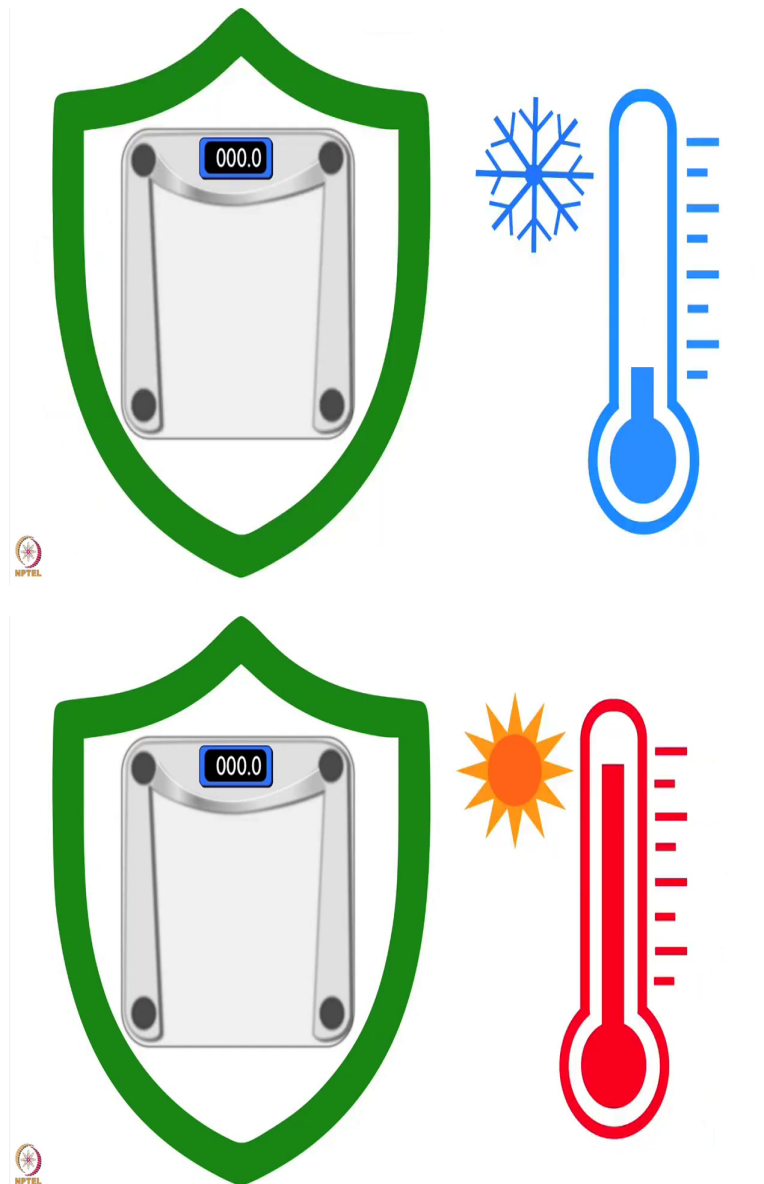
Next, let us learn how to measure weight using a family digital scale. Digital or electronic scales provide quick, easy and precise measurements. Family digital scales can be used in two different ways to weigh children. Children who can stand up can be weighed by making them stand on the scale. Other children can be weighed in the arms of an adult. This is also called double weighing. To weigh the child place the scale on a hard and flat surface. A wooden board can be used if you are weighing the child on the field.

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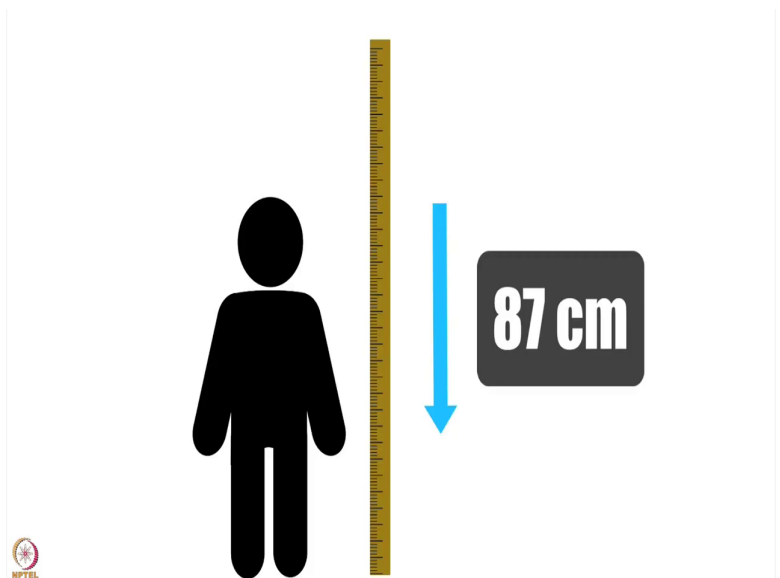
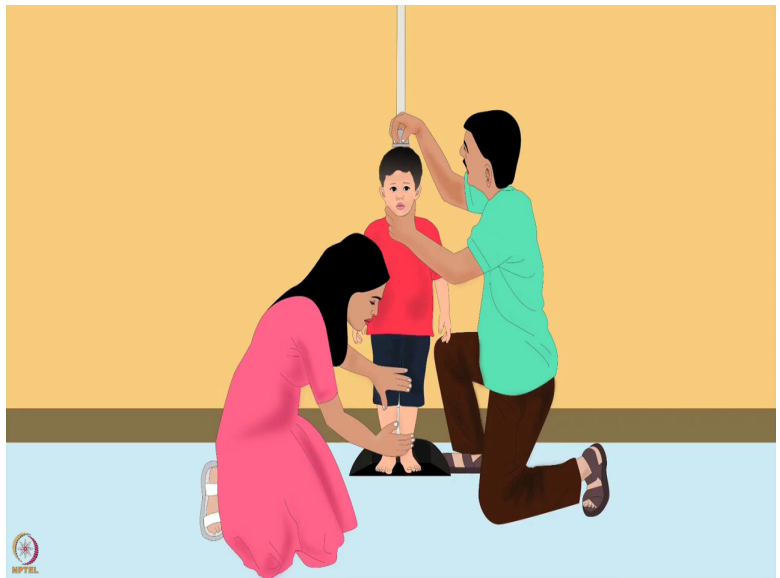
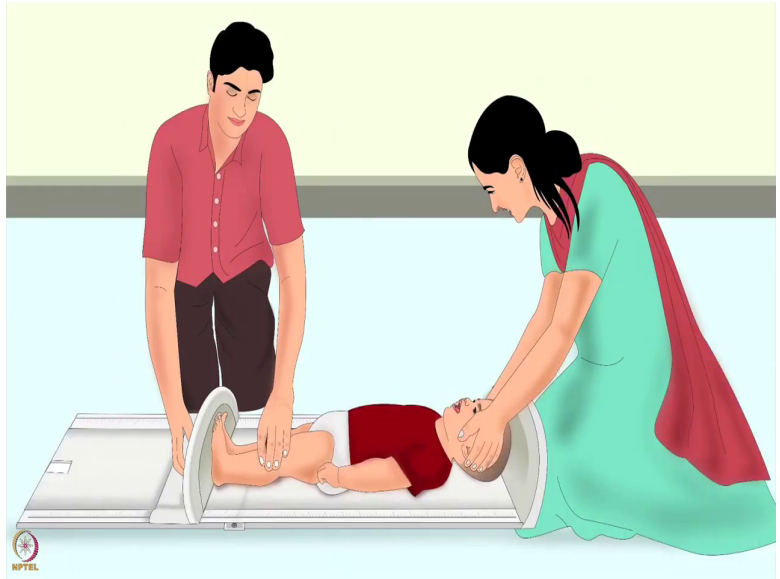


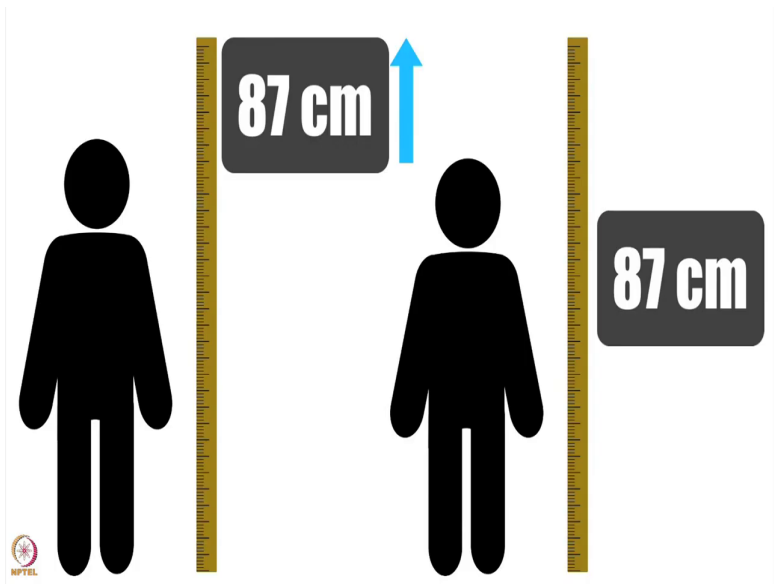
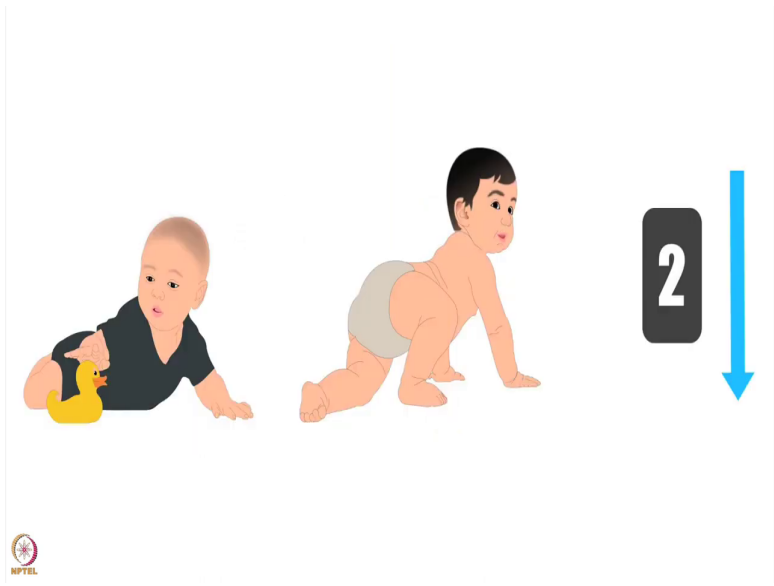


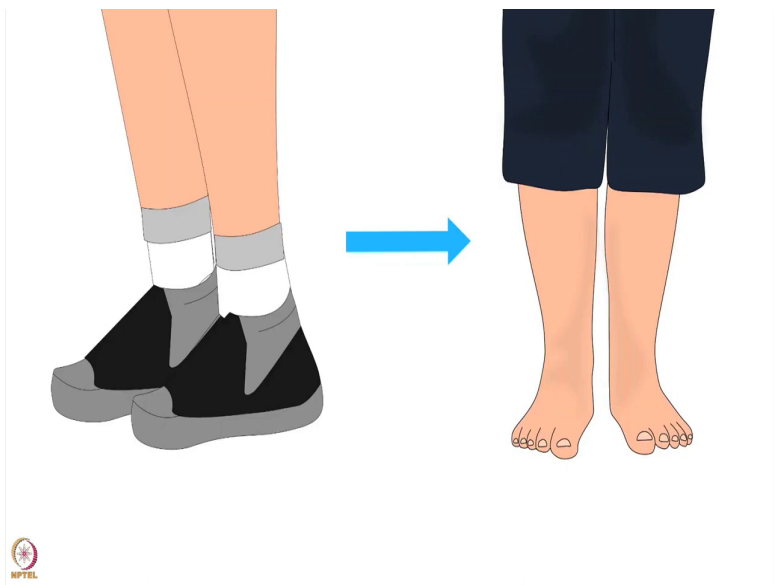
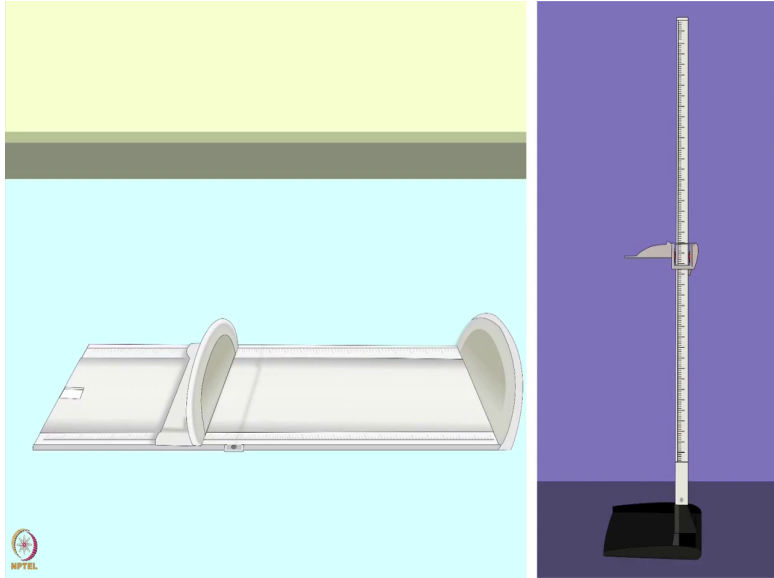


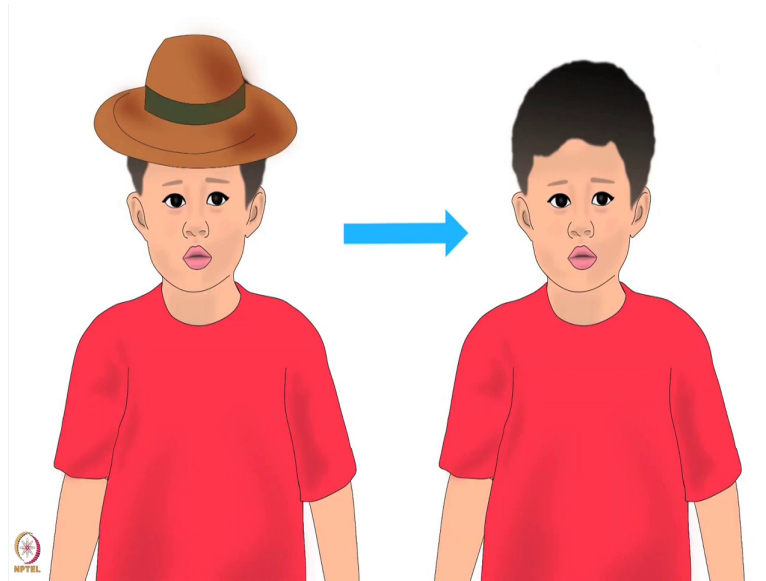
Explain the procedure to the child's mother or carer. Take off the child's clothes, if possible. Turn on the scale. Tell the child to stand on the scale. If the child cannot stand, ask the mother or an assistant to stand on the scale. After the adult's weight appears, press the reset button. 0 must appear before the child is given to the adult to be weighed. The weight displayed will be the child's weight. Write down the weight immediately so you do not forget it. Handle the scale with care. Protect the scale from excess humidity or excess heat.

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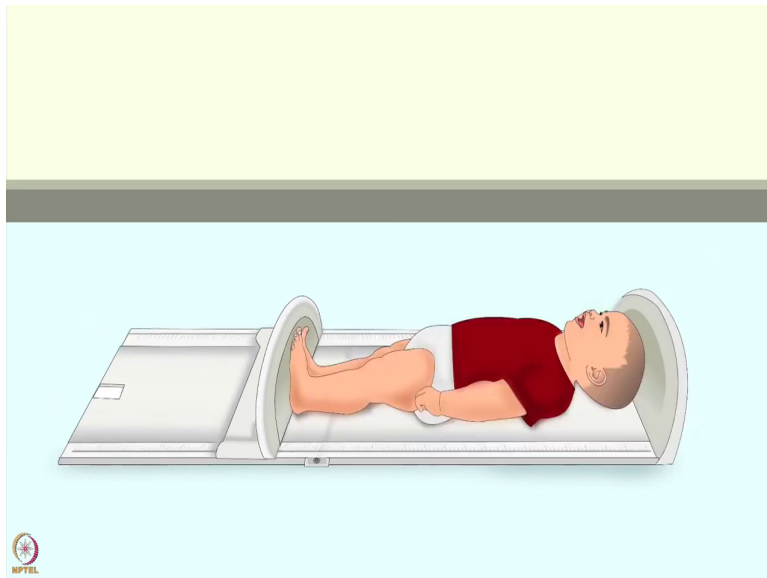
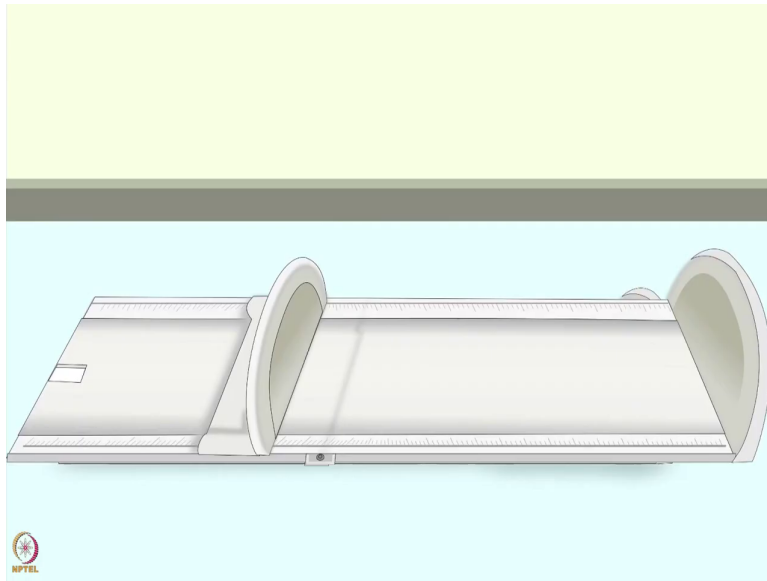


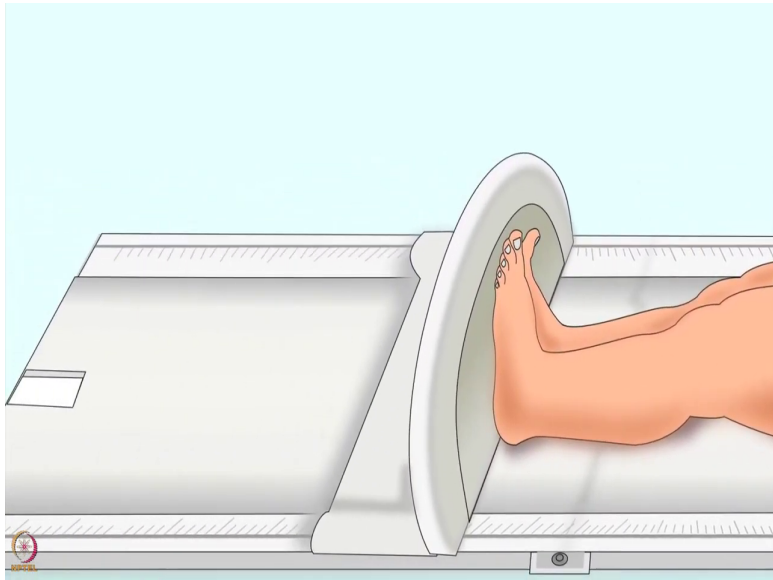
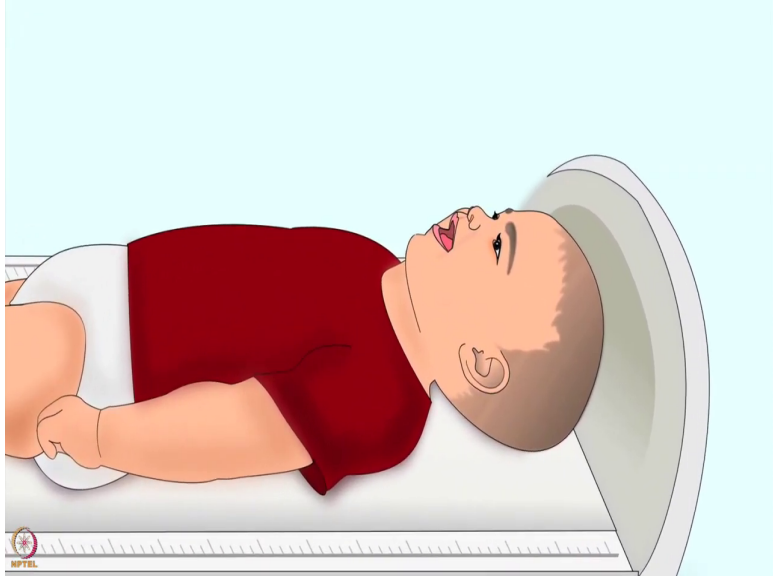


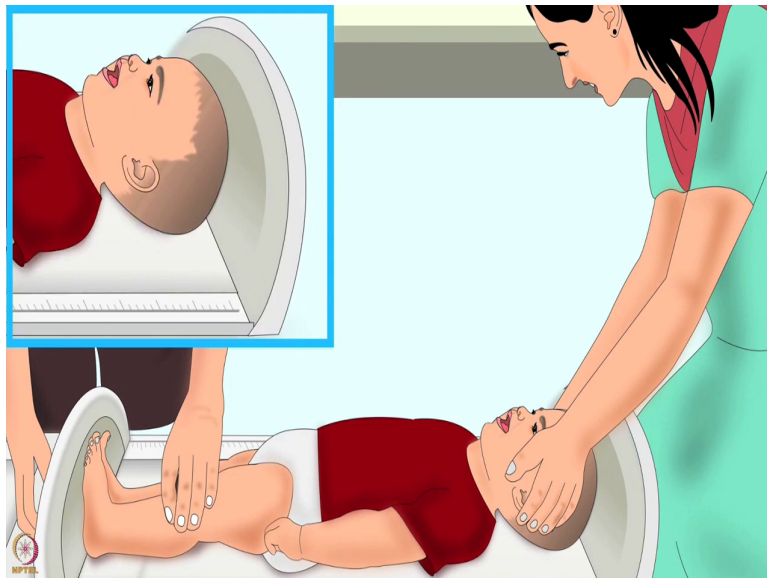


Next, let us learn how to measure a child's length or height. Length is used for children shorter than 87 centimeters or under 2 years of age. Height is used for children taller than or equal to 87 centimeters or over 2 years of age. For length or height measurement, you will need a height board. You will need two people to take the measurement. You will need support from the carer when taking the measurement. You must take off the child's shoes and socks. Remove anything that covers the child's head as well.

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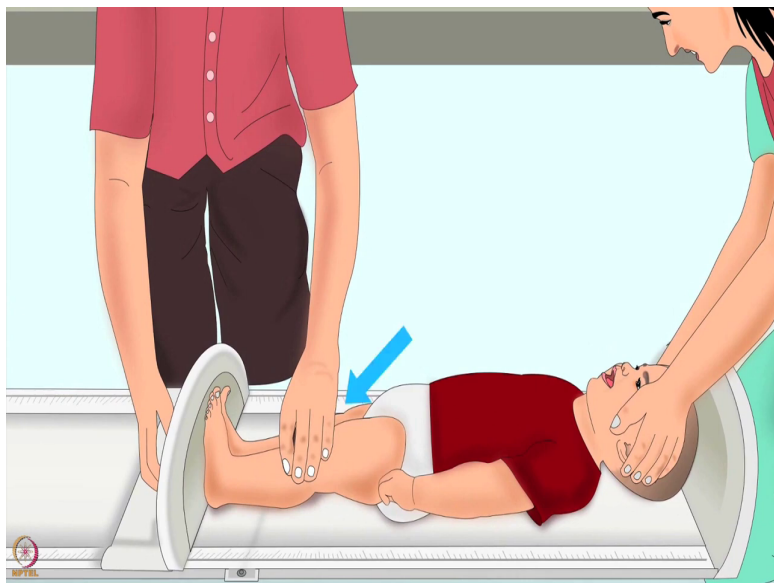
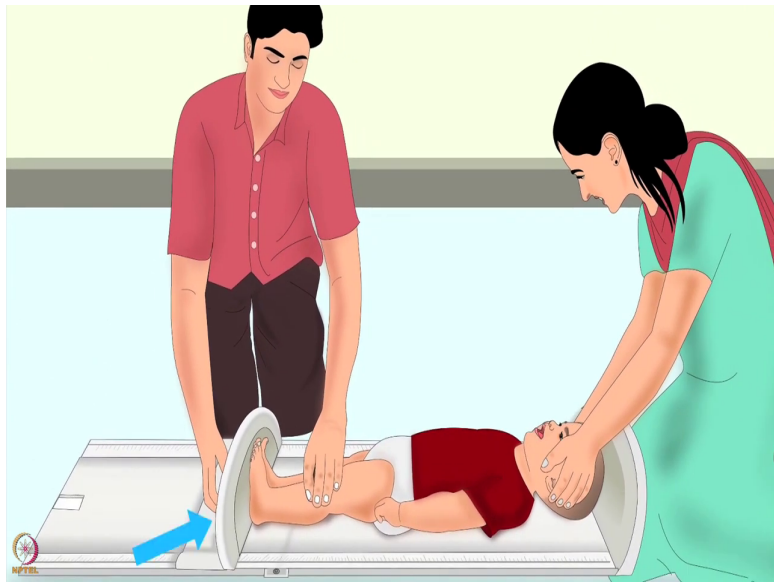
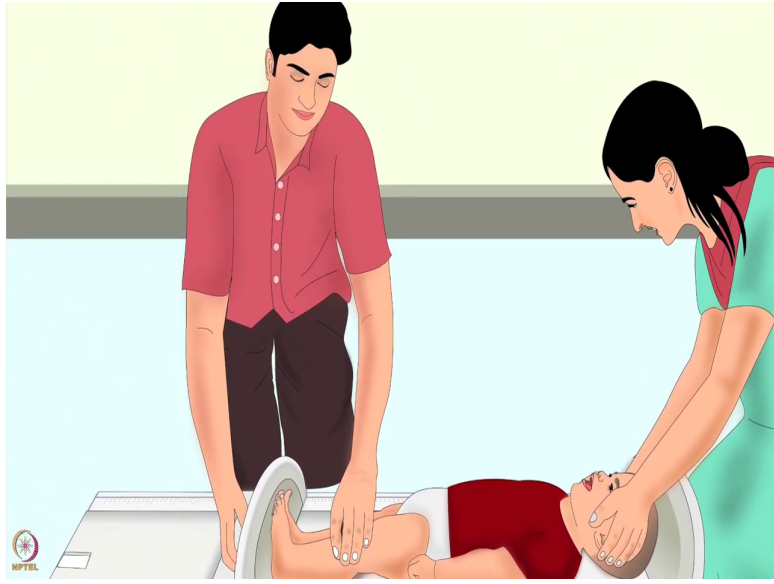


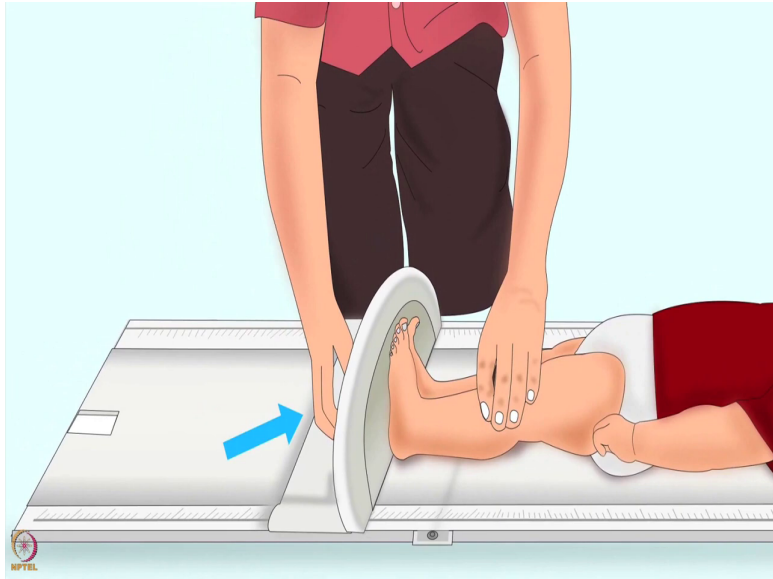




For length measurement, put the height board flat on the ground. Lay the child on the board. The child's head should be touching the fixed board end. The child's feet should be towards the moveable foot piece. One person should sit on her knees straight behind the fixed board. She should place her hands over the child's ears should hold the head of the child firmly with her hands. In this position, the child should be looking straight up. The top of the child's head should touch the fixed board.

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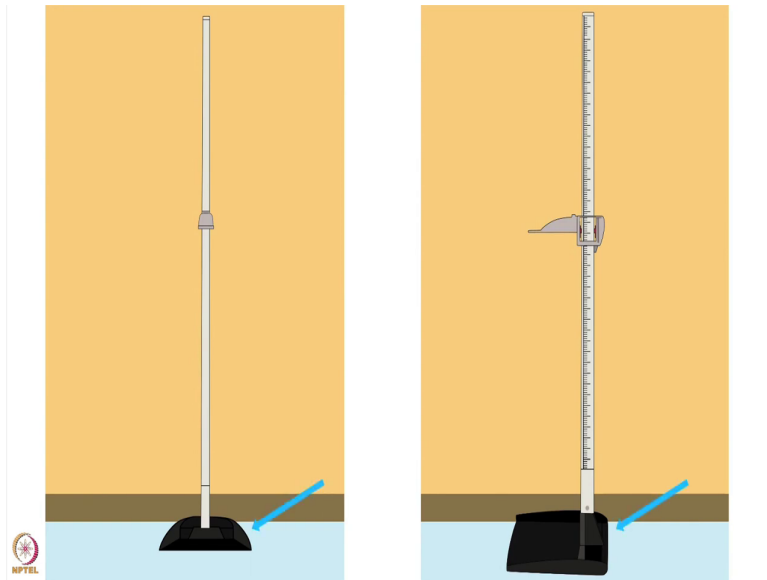
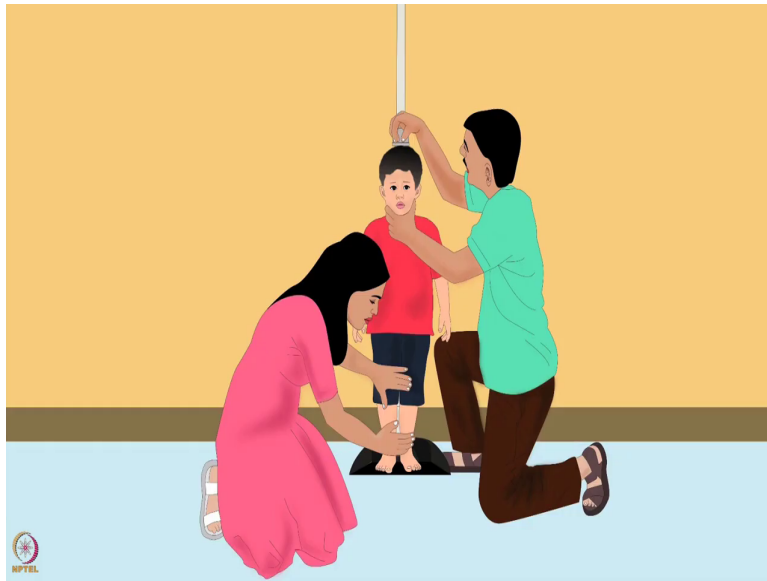


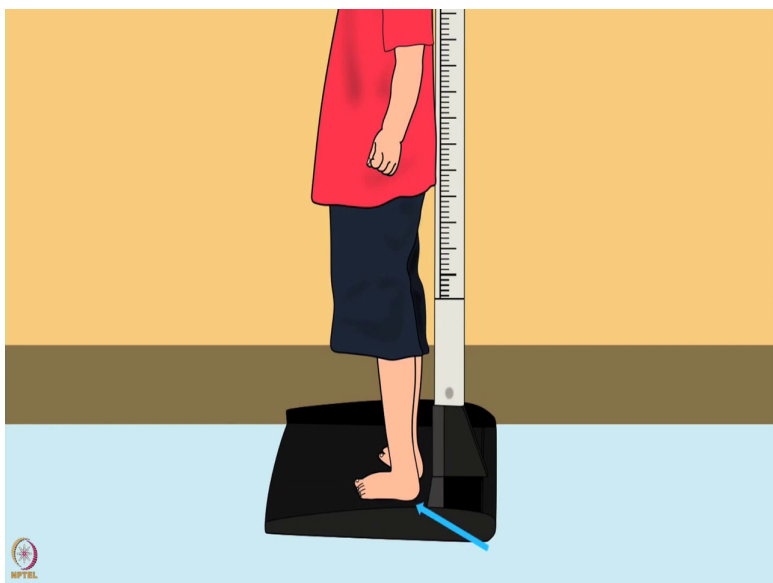
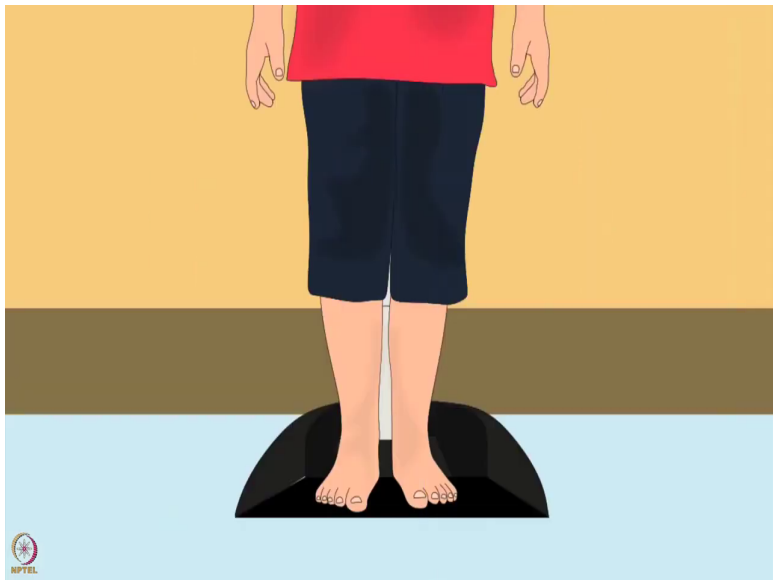
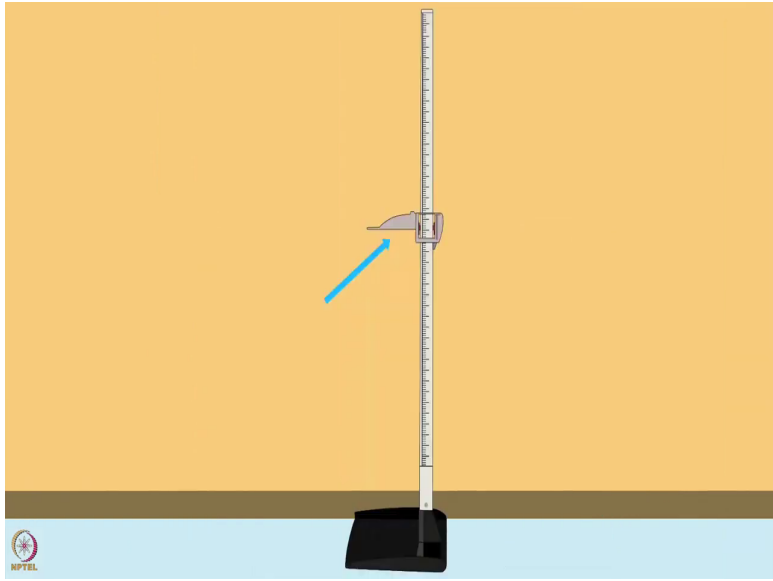
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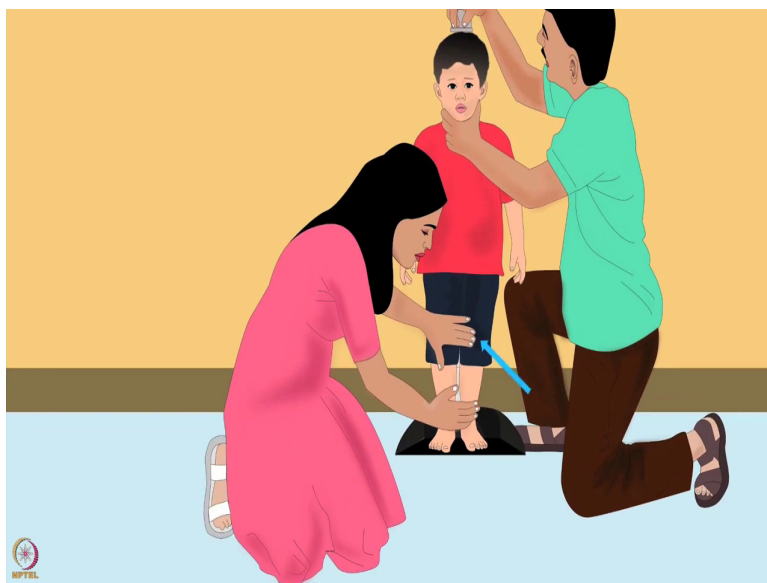
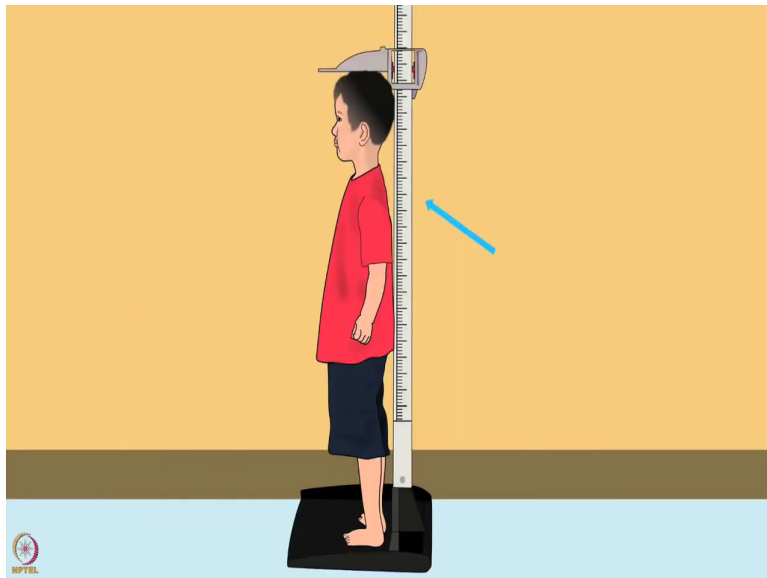
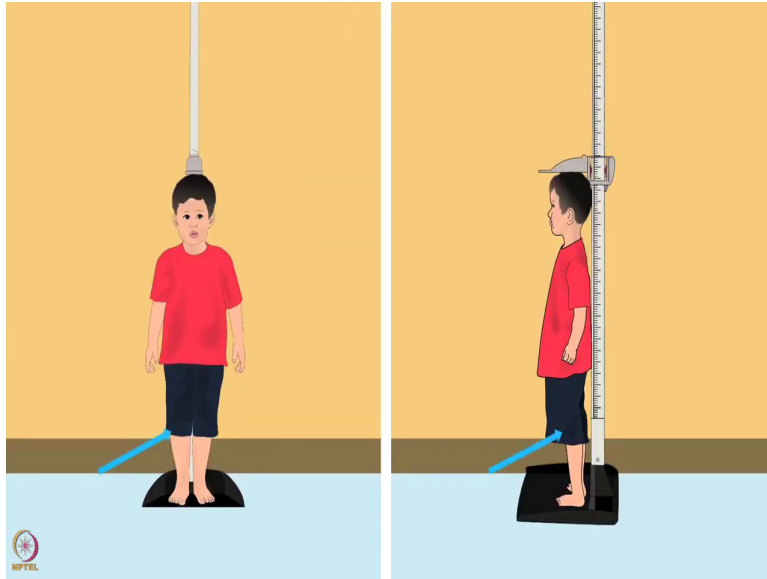


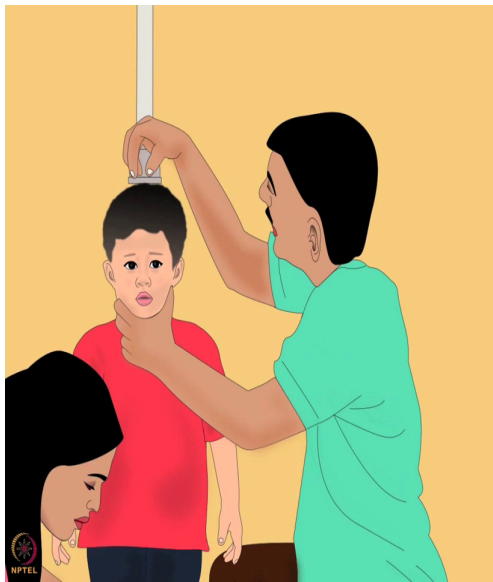
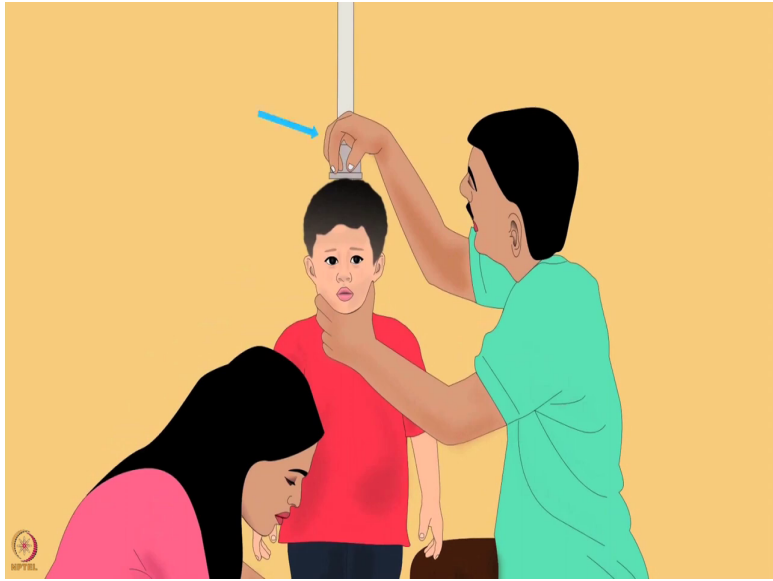
Now, the second person should position himself properly. He should sit on his knees near the foot piece. He should straighten the child's legs. With one hand, he should hold the child's knees firmly on the board. With the other hand, he should move the foot piece. He must move it until it is pressing against the heels of the child. He should not tilt the foot piece. The child should lay completely flat on the height board. The person holding the foot piece should read the length of the child. His eyes must be straight above the measuring tape while reading. Length can be read up to one millimeter of accuracy. He must write down the length immediately.

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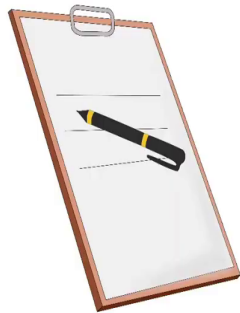


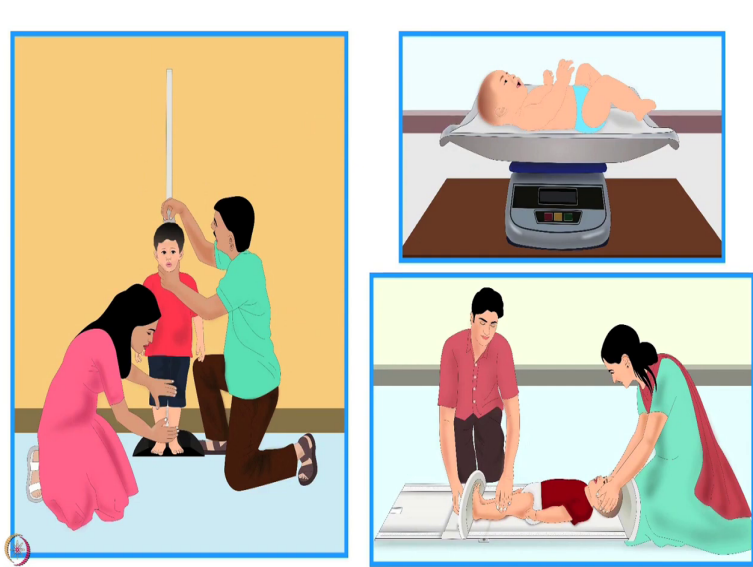






1 millimeter





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Funded by the WIN Foundation

Domain Review:

Dr Rupal Dalal, MD Paediatrics, IBCLC



Tasneem Shaikh

Measurement of Children's Weight and Height

Now, let us learn how to measure a child's height. For height measurement, put the height board straight up. Make sure the fixed board end is flat on the ground. The movable head piece should be at the top and put the back of the board against a flat wall. Remove the child's footwear. Tell the child to stand on the center of the fixed board. The child's heels must be pressed against the height board. The child's knees must be straight. The child's shoulders and head should be pressed against the board. The child's hands must be at the sides. The child should look straight ahead.

The first person should sit on her knees. As on the side of the board, her left hand should be on the child's knees. She must keep the child's knees together and straight. Her right hand should be on the front part of the child's lower legs. The second person should sit on his knees in front of the board. He should move the headpiece until it presses against the child's

head. He must hold the headpiece straight with one hand. With the other hand, he should cap and hold the child's chin.

Now, he should read the height, while reading his eyes should be straight in front of the measuring tape. He can measure the height up to 1 millimeter of accuracy. He should write down the height immediately. Detailed interpretation of these measurements is discussed in other tutorials; please visit our website for more information. This brings us to the end of this tutorial. Thank you for joining.