

# MEASUREMENT OF MID-UPPER ARM CIRCUMFERENCE

**Mid-upper arm circumference provides information on muscle mass and subcutaneous fat in the arm.**

**MUAC measurement should be taken in the left arm**

**Non-stretch tape with a vernier scale provides a more accurate measurement of MUAC especially in children**

# MEASUREMENT OF MID UPPER ARM CIRCUMFERENCE



The person should stand erect. Left upper arm should be relaxed and hanging

Identify tip of acromion by passing the hand on the spine of the scapula  
Bend the arm at the elbow so that arm is at 90 degrees from upper arm.

Identify tip of the olecranon process

# MEASUREMENT OF MID UPPER ARM CIRCUMFERENCE



Keep the zero mark of the tape on the acromion and draw the tape down until olecranon process is reached.

Measure the length between these two bony points

Mark the midpoint in length between tip of acromion and olecranon processes on the skin using soft pen

# MEASUREMENT OF MID UPPER ARM CIRCUMFERENCE

Wind the Vernier tape around the arm with the lower border of the tape lying on the marking on the arm.

Ensure that the tape lies snugly around the arm by passing the fingers of your hands along the tape

There should be no gaps between tape and mid arm. If the tape is wound too tightly there will be a bulge in the arm just beyond the tape.



# MEASUREMENT OF MID UPPER ARM CIRCUMFERENCE



Insert the free end of the tape into the slot in the vernier tape so that it fits the mid-upper arm snugly

# MEASUREMENT OF MID UPPER ARM CIRCUMFERENCE



Bring the non-stretch tape over the middle of the vernier scale so that the circumferential measurement is taken without any obliquity.

# MEASUREMENT OF MID UPPER ARM CIRCUMFERENCE

Hold the left end of the vernier scale with the right thumb and forefinger  
Hold the right end of the vernier scale with the non-stretch tape over it  
Read the measurement at the zero marking of the vernier scale  
Mid upper arm circumference is 23 cms





# MEASUREMENT OF WAIST CIRCUMFERENCE

# WAIST CIRCUMFERENCE

Waist circumference (WC) is a useful indicator for assessing abdominal adiposity.

A person with a wider waist than hip is at greater risk for non-communicable diseases

Using a tape with a vernier scale prevents obliquity and makes the reading more accurate

It also allows the investigator to read the markings from a distance; leaving a space between the investigator and the person being measured makes both the person measured and the persons measuring more comfortable.

# MEASUREMENT OF WAIST CIRCUMFERENCE USING VERNIER TAPE

Waist circumference can be measured over thin clothes worn in summer.

Person who is measuring should stand in front of the person being measured

Person measured should stand straight with weight evenly distributed on both feet

Waist is identified as the smallest circumference in the trunk between the costal margin and the iliac crest.

The tape is wound horizontally; there should not be any obliquity

The tape is wound snugly around the waist but should not compress the soft tissue.



# MEASUREMENT OF WAIST CIRCUMFERENCE USING VERNIER TAPE

Pass the fingers of your hand along the tape; there should be no gaps between the tape and waist

If the tape is wound too tightly there will be a bulge of the abdomen just beyond the tape. The deviation from horizontal plane is eliminated by ensuring that the tape lies horizontally on the vernier scale

Circumference can be readily and accurately read on the tape It is 59.8 cm



0.8cm

59 cm

# MEASUREMENT OF HIP CIRCUMFERENCE USING VERNIER TAPE

Hip circumference can be measured over thin clothes worn in summer.

Person who is measuring should stand on one side of the person being measured

Person being measured should stand straight with weight evenly distributed on both the feet

Hip is identified as the largest circumference in the hip region.

The tape is wound horizontally; there should not be any obliquity

The tape is wound snugly around the hip but should not compress the soft tissue.



# MEASUREMENT OF WAIST CIRCUMFERENCE USING VERNIER TAPE

Pass the fingers of your hand along the tape; there should be no gaps between the tape and hip

If the tape is wound too tightly there will be a bulge of the abdomen just beyond the tape. The deviation from horizontal plane is eliminated by ensuring that the tape lies horizontally on the vernier scale

Hip circumference can be readily and accurately read on the tape. It is 84.2 cm

