MEASUREMENT OF NUTRITIONAL STATUS & VITAL CAPACITY

The use of tests to evaluate nutritional status of children in schools has been a common practice. The purpose of this measurement is primarily to discover those who are under nourished & those who are above so that appropriate remedial procedure may be applied. Frequently such test is used in conjunction with physicians health appraisal.

1) AGE, HEIGHT, WEIGHT TABLES

FOR MANY YEARS STANDARD AGE HEIGHT, WEIGHT TABLES HAVE BEEN USED TO MEASURE NUTRITIONAL STATUS. THE SCHOOLS USE THE TABLES AS INDICES OF NUTRITIONAL STATUS & MONTHLY WEIGHTING OF CHIDREN & PLOTTING OF THEIR INDIVIDUAL WEIGHT CURVE IS A COMMON PRACTICE. BEST KNOWN TABLE OF THIS TYPE ARE THE WOOD BALDWIN A H W TABLES. USUAL POLICY HAS BEEN TO CONSIDER AS UNDER NOURISHED ALL CHILDREN WHO ARE 10 % BELOW AVERAGE FOR THEIR SEX, AGE & HEIGHT; AS ABOVE THOSE WHO ARE 15 – 20 % ABOVE THE AVERAGE.

Advantage of this practice is universal appeal & recognition of weight, simplicity & economy of measurement & opportunity to centre health lessons in classroom around numerous & varied reasons for losing & gaining weight.

Research has cast considerable doubts on reliance that can be placed upon A.H.W. tables as a measure of nutritional status. Serious fault is application of A.H.W. tables to determine nutritional status & of gross proposition of bone, muscle & fat in considering standard weight that one should equal. Two individual may be of same age, height & weight & yet be totally different in their nutritional status. Actually one's weight cannot be completely understood unless differentiated according to body build and components of various tissue types.

2) MERED WITH HEIGHT WEIGHT CHARTS:
3) WELLESSLEY WEIGHT PREDICTION METHOD
4) SHELDON'S AGE HEIGHT WEIGHT TABLES
5) SKINFOLD MEASUREMENT

SKINFOLD TEST:

GRASP THE SKINFOLD BETWEEN THUMB & INDEX FINGER ABOUT 1 cm FROM THE SITE AT WHICH THE CALIPERS ARE TO BE APPLIED. AMOUNT OF SKINFOLD SHOULD BE GREAT ENOUGH TO INCLUDE THICKNESSES OF SKIN WITH INTERVENING FAT, BUT NOT ENOUGH TO INVOLVE MUSCLE OR FASIA. TO ENSURE THIS THE SUBJECT SHOULD CONTRACT HAVE UNDERLYING MUSCLES? CALIPER IS APPLIED ABOVE THE FINGES HOLDING THE SKINFOLD ALL MEASUREMENTS AREW MADE TO NEAREST MM.

a) Triceps
b) Sub scapular
c) Lateral abdomen

BODY DIMENSION

Body weight Chest girth arm girth

MEASUREMENT OF VITAL CAPACITY

1) The spirometer should be filled with water to within one inch of the top & placed at such a height that all subject can stand fully erect when beginning the test. An individual wooden mouthpiece is inserted into the tube by the subject being tested. This mouthpiece may be used repeatedly if thoroughly sterilized each time by boiling, streaming or thoroughly so aching in an antiseptic solution.
2) The subject takes 1 or 2 deep breaths before the test; then with fullest possible inhalation, exhales slowly & steadily as completely as possible. Care should be taken to prevent air from escaping either thoroughly the nose or around the edges of the mouthpiece & to see that a second breath is not taken during the test.
3) The subjects score is being read in cubic inches on a scale fastened to the outside of spirometer.
4) A rubber plug at the base of the spirometer is removed when lowering the inner can often a test has been taken.