

ACTIVITY 3: SKINFOLD MEASUREMENT

Assume that you have conducted the skinfold measurements for six individuals and get following measurements in the tables given below. Each site was measured three times and calculate the average of the two nearest measurements for each site.

Individual 1				
Age: 18		Gender: Male		Weight: 72 kg
Site	Measurement 1 (mm)	Measurement 2 (mm)	Measurement 3 (mm)	Average of 2 nearest measurements
Chest	10.5	11.2	10.8	
Axilla	12.3	11.9	12.1	
Triceps	9.8	10.2	9.9	
Subscapular	12.5	12.9	13.0	
Abdomen	15.0	14.5	14.8	
Suprailium	13.1	12.8	13.0	
Thigh	16.2	16.0	16.5	

Individual 2				
Age: 22		Gender: Female		Weight: 60kg
Site	Measurement 1 (mm)	Measurement 2 (mm)	Measurement 3 (mm)	Average of 2 nearest measurements
Chest	9.2	9.5	9.1	
Axilla	11.8	11.5	11.6	
Triceps	16.3	16.0	16.5	
Subscapular	14.5	14.8	14.9	
Abdomen	17.0	16.6	16.9	
Suprailium	14.9	15.2	15.0	
Thigh	20.4	20.1	20.3	

Individual 3				
Age: 25		Gender: Male		Weight: 80kg
Site	Measurement 1 (mm)	Measurement 2 (mm)	Measurement 3 (mm)	Average of 2 nearest measurements
Chest	13.4	13.1	13.6	
Axilla	12.5	12.3	12.8	
Triceps	11.7	12.0	11.5	
Subscapular	13.9	13.7	13.8	
Abdomen	18.5	18.1	18.3	
Suprailium	15.0	15.4	15.1	
Thigh	19.2	19.0	19.4	

Individual 4				
Age: 30		Gender: Female		Weight: 65kg
Site	Measurement 1 (mm)	Measurement 2 (mm)	Measurement 3 (mm)	Average of 2 nearest measurements
Chest	8.4	8.2	8.6	
Axilla	11.0	10.7	10.8	
Triceps	14.5	14.2	14.3	
Subscapular	13.3	13.0	13.2	
Abdomen	15.9	15.5	15.8	
Suprailium	12.7	12.5	12.8	
Thigh	17.8	18.1	17.9	

Individual 5				
Age: 35		Gender: Male		Weight: 85kg
Site	Measurement 1 (mm)	Measurement 2 (mm)	Measurement 3 (mm)	Average of 2 nearest measurements
Chest	14.9	15.2	15.0	
Axilla	13.4	13.1	13.5	
Triceps	12.1	12.5	12.2	
Subscapular	15.0	15.4	15.2	
Abdomen	19.8	19.5	19.7	
Suprailium	16.2	16.5	16.1	
Thigh	21.4	21.2	21.6	

Individual 6				
Age: 40		Gender: Female		Weight: 70kg
Site	Measurement 1 (mm)	Measurement 2 (mm)	Measurement 3 (mm)	Average of 2 nearest measurements
Chest	10.3	10.0	10.2	
Axilla	12.2	12.5	12.1	
Triceps	15.4	15.0	15.2	
Subscapular	14.7	14.5	14.8	
Abdomen	17.6	17.2	17.4	
Suprailium	14.0	13.7	13.9	
Thigh	19.3	19.0	19.5	

Questions

1. Find the average of nearest two measurements in each site of the individuals and fill the given tables.
2. Find the body density and body fat % of each individual using seven site skin fold measurement (refer page 7 in Skin fold measurement manual).
3. Find the percentage of body fat of each individual using three site skin fold measurements (refer Table 1 and 2 in page 8 and 9 in the manual).
4. Find the percentage of body fat of each individual using four site skinfold measurements (refer Table 3 and 4 in page 10 and 11 in the manual).
5. Find the level of body fat of each individual using norms table 5 and 6 in the manual.
6. Find the following body composition parameters of each individual using the equations given in the page 13 in the manual.
 - i. Fat mass / body weight in fat (FW)
 - ii. Fat free mass/lean body weight (LBW)
 - iii. Desired body fat percentage (DFP) (*use excellent/ good category mentioned in table 5 and 6*)
 - iv. Recommended body weight (RBW)
7. Based on your calculation about recommended body weight, desired body fat percentage write a short recommendation about lifetime weight management for each individual (you can refer page 16 onward to find information to write the answer or any relevant reliable source).