## Skinfold Testing Procedure

REQUIRED EQUIPMENT: Skinfold calipers, Tape measure, pen, clipboard, Fitness Testing Recording Form

## PROCEDURE:

1. Describe the testing protocol to the client

- I am going to measure your body composition using a sum of four testing method
- The site I am going to test are: biceps, triceps, suprailiac and sub-scapular

2. This will involve taking a fold of skin at each of the four sites and using the calipers to take a measurement
3. Once I have a reading at all for site I can calculate your body composition
4. Mark all the skinfold sites

- Use a pen and tape measure to mark the four site that you are going to measure
- Biceps:
- The vertical fold on the anterior aspect of the arm over the belly of the biceps muscle
- Use the tape measure to find the half-way point between the acromion (front of shoulder) and the fold in the arm (elbow) and
- Mark with a pen
- Triceps:
- The vertical fold on the posterior aspect of the arm
- Use the tape measure to find the half-way point between the elbow joint and the acromion
- Mark with a pen
- Sub-scapular:
- The diagonal fold $\left(45^{\circ}\right)$ at the base of the scapular
- Use the tape measure to find the straight line between the inferior angle of the scapula and posterior acromion.
- Measure 3 cm from the inferior crest of the scapula (away from the scapula)
- Mark with a pen
- Suprailiac:
- The diagonal fold at the tip of the hip bone
- Use the tape measure to run a straight line between the iliac crest and navel.
- Measure 3 cm from the iliac crest, towards navel
- Mark with a pen

5. Measure the skinfolds

- Pinch approximately 2 cm of skin from either side of the marking
- Lift the skin and underlying adipose tissue away from the muscle using thumb and forefinger
- Place the open calipers next to the fingers
- Ensure you maintain the finger grip while allowing the calipers to close
- Record the measurement on the caliper dial
- Measure each site three times
- Take the average of the three readings

6. Calculate the Results

- Add up the total of the four site and compare with the normative data below, according to gender and age.

| Sum of Skinfolds (mm) | Males |  |  |  | Females |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 17-29 | 30-39 | 40-49 | 50+ | 17-29 | 30-39 | 40-49 | 50+ |
| 15 | 4.8 |  |  |  | 10.5 |  |  |  |
| 20 | 8.1 | 12.2 | 12.2 | 12.6 | 14.1 | 17.0 | 19.8 | 21.4 |
| 25 | 10.5 | 14.2 | 15.0 | 15.0 | 16.8 | 19.4 | 22.2 | 24.0 |
| 30 | 12.9 | 16.2 | 17.7 | 18.6 | 19.5 | 21.8 | 24.5 | 26.6 |
| 35 | 14.7 | 17.7 | 19.6 | 20.8 | 21.5 | 23.7 | 26.4 | 28.5 |
| 40 | 16.4 | 19.2 | 21.4 | 22.9 | 23.4 | 25.5 | 28.2 | 30.3 |
| 45 | 17.7 | 20.2 | 23.0 | 24.7 | 25.0 | 26.9 | 29.6 | 31.9 |
| 50 | 19.0 | 21.5 | 24.6 | 26.5 | 26.5 | 28.2 | 31.0 | 33.4 |
| 55 | 20.1 | 22.5 | 25.9 | 27.9 | 27.8 | 29.4 | 32.1 | 34.6 |
| 60 | 21.2 | 23.5 | 27.1 | 29.2 | 29.1 | 30.6 | 33.2 | 35.7 |
| 65 | 22.2 | 24.3 | 28.2 | 30.4 | 30.2 | 31.6 | 34.1 | 36.7 |
| 70 | 23.1 | 25.1 | 29.3 | 31.6 | 31.2 | 32.5 | 35.0 | 37.7 |
| 75 | 24.0 | 25.9 | 30.3 | 32.7 | 32.2 | 33.4 | 35.9 | 38.7 |
| 80 | 24.8 | 26.6 | 31.2 | 33.8 | 33.1 | 34.3 | 36.7 | 39.6 |
| 85 | 25.5 | 27.2 | 32.1 | 34.8 | 34.0 | 35.1 | 37.5 | 40.4 |
| 90 | 26.2 | 27.8 | 33.0 | 35.8 | 34.8 | 35.8 | 38.3 | 41.2 |
| 95 | 26.9 | 28.4 | 33.7 | 36.6 | 35.6 | 36.5 | 39.0 | 41.9 |
| 100 | 27.6 | 29.0 | 34.4 | 37.4 | 36.4 | 37.2 | 39.7 | 42.6 |
| 105 | 28.2 | 29.6 | 35.1 | 38.2 | 37.1 | 37.9 | 40.4 | 43.3 |
| 110 | 28.8 | 30.1 | 35.8 | 39.0 | 37.8 | 38.6 | 41.0 | 43.9 |
| 115 | 29.4 | 30.6 | 36.4 | 39.7 | 38.4 | 39.1 | 41.5 | 44.5 |
| 120 | 30.0 | 31.1 | 37.0 | 40.4 | 39.0 | 39.6 | 42.0 | 45.1 |
| 125 | 31.0 | 31.5 | 37.6 | 41.1 | 39.6 | 40.1 | 42.5 | 45.7 |
| 130 | 31.5 | 31.9 | 38.2 | 41.8 | 40.2 | 40.6 | 43.0 | 46.2 |
| 135 | 32.0 | 32.3 | 38.7 | 42.4 | 40.8 | 41.1 | 43.5 | 46.7 |
| 140 | 32.5 | 32.7 | 39.2 | 43.0 | 41.3 | 41.6 | 44.0 | 47.2 |
| 145 | 32.9 | 33.1 | 39.7 | 43.6 | 41.8 | 42.1 | 44.5 | 47.7 |
| 150 | 33.3 | 33.5 | 40.2 | 44.1 | 42.3 | 42.6 | 45.0 | 48.2 |
| 155 | 33.7 | 33.9 | 40.7 | 44.6 | 42.8 | 43.1 | 45.4 | 48.7 |
| 160 | 34.1 | 34.3 | 41.2 | 45.1 | 43.3 | 43.6 | 45.8 | 49.2 |
| 165 | 34.5 | 34.6 | 41.6 | 45.6 | 43.7 | 44.0 | 46.2 | 49.6 |
| 170 | 34.9 | 34.8 | 42.0 | 46.1 | 44.1 | 44.4 | 46.6 | 50.0 |
| 175 | 35.3 |  |  |  |  | 44.8 | 47.0 | 50.4 |
| 180 | 35.6 |  |  |  |  | 45.2 | 47.4 | 50.8 |
| 185 | 35.9 |  |  |  |  | 45.6 | 47.8 | 51.2 |
| 190 |  |  |  |  |  | 45.8 | 48.2 | 51.6 |
| 195 |  |  |  |  |  | 46.2 | 48.5 | 52.0 |
| 200 |  |  |  |  |  | 46.5 | 48.9 | 52.4 |
| 205 |  |  |  |  |  |  | 49.1 | 52.7 |
| 210 |  |  |  |  |  |  | 49.4 | 53.0 |


| General Population | Male \% | Female \% |
| :---: | :---: | :---: |
| Lean | $<12$ | $<18$ |
| Acceptable | $12-18.9$ | $18-27.9$ |
| Overweight | $19+$ | $28+$ |

