

ASSESSMENT REFERENCE GUIDE

1. Heart Rate Instructions (typical adult 70-80 beats per minute)

- a. Place index and middle fingers around the palm side of the wrist (about one inch from the top of the wrist, on the thumb side).
- b. Locate the artery by feeling for a pulse with the index and the middle fingers. Apply light pressure to feel the pulse. Do not apply excessive pressure as it may distort results.
- c. When measuring the pulse during rest, count the number of beats in 60 seconds.
- d. When measuring the pulse during exercise, count the # of beats in 6 seconds & add a zero to the number.

Maximum Heart Rate = $220 - \text{Age}$

Estimated Training Zones

Zone I: _____ to _____ (65-75% max HR)

[Max HR x 0.65 to 0.75] If first time exerciser use [HR max x 0.50 to 0.65]

Zone II: _____ to _____ (76-85% max HR)

[Max HR x 0.76 to 0.85]

Zone III: _____ to _____ (86-95% max HR)

[Max HR x 0.86 to 0.95] Only to be used by high level clients

2. BMI (Body Mass Index)

$\text{Weight (lbs)} / \text{height (inches squared)} \times 703 = \text{BMI}$

- **Mild** = 25-30
- **Moderate** = 30-35
- **Severe** >35

3. Body Fat – Handheld Bioelectrical Impedance

- Enter demographic information
- Client stands with feet shoulder width apart, holding the machine at arm’s length with thumbs on top, level with the shoulders.

MALE

Age	EXCELLENT 1	VERY GOOD 2	GOOD 3	FAIR 4	POOR 5
19-24	< 11	11.1 – 15	15.1 - 19	19.1 - 23	> 23
25-29	< 13	13.1 – 17	17.1 - 20	20.1 - 24	> 24
30-34	< 15	15.1 – 18	18.1 - 22	22.1 - 25	> 25
35-39	< 16	16.1 – 19	19.1 - 23	23.1 - 26	> 26
40-44	< 18	18.1 – 21	21.1 - 24	24.1 - 27	> 27
45-49	< 19	19.1 – 22	22.1 - 25	25.1 - 28	> 28
50-54	< 20	22.1 – 23	23.1 - 26	26.1 - 29	> 29
55 +	< 20	20.1 -24	24.1 -27	27.1 - 30	> 30

FEMALE

Age	EXCELLENT 1	VERY GOOD 2	GOOD 3	FAIR 4	POOR 5
19-24	< 19	19.1 – 22	22.1 -25	25.1 - 30	> 30
25-29	< 19	19.1 – 22	22.1 - 25	25.1 -30	> 30
30-34	< 20	20.1 – 23	23.1 - 26	26.1 - 31	> 31
35-39	< 21	21.1 – 24	24.1 - 28	28.1 - 32	> 32
40-44	< 23	23.1 – 26	26.1 - 29	29.1 - 33	> 33
45-49	< 24	24.1 – 27	27.1 - 31	31.1 - 34	> 34
50-54	< 27	27.1 – 31	31.1 - 34	34.1 - 37	> 37
55 +	< 28	28.1 – 31	31.1 -34	34.1 -38	> 38

4. Circumference Measurements

- Neck: Across the Adam’s Apple
- Chest: Across the nipple line
- Waist: Measure the narrowest point of the waist, below the rib cage and just above the top of the hipbones. If there is no apparent narrowing of the waist, measure at the navel.
- Hips: With feet together, measure circumference at the widest portion of the buttocks.
- Thighs: Measure 10 inches above the top of the knee cap.
- Calves: At the maximal circumference between the ankle and the knee, measure the calves.
- Biceps: At the maximal circumference of the biceps, measure with arm extended, and palm facing forward.

5. YMCA Step Test

Perform the cardiovascular step test by having the client step on a 12-inch platform, at a pace of 24 steps per minute, for 3 minutes (roughly 72 steps total). Within 5 seconds of completing the 3 minutes of stepping, measure the client's heart rate for 60 seconds. Record that number and reference the chart to determine cardiovascular health.

Men	18-25	26-35	36-45	46-55	56-65	65+
Excellent	50-76	51-76	49-76	56-82	60-77	59-81
Good	79-84	79-85	80-88	87-93	86-94	87-92
Above Average	88-93	88-94	92-88	95-101	97-100	94-102
Average	95-100	96-102	100-105	103-111	103-109	104-110
Below Average	102-107	104-110	108-113	113-119	111-117	114-118
Poor	111-119	114-121	116-124	121-126	119-128	121-126
Very Poor	124-157	126-161	130-163	131-159	131-154	130-151
Women	18-25	26-35	36-45	46-55	56-65	65+
Excellent	52-81	58-80	51-84	63-91	60-92	70-92
Good	85-93	85-92	89-96	95-101	97-103	96-101
Above Average	96-102	95-101	100-104	104-110	106-111	104-111
Average	104-110	104-110	107-112	113-118	113-118	116-121
Below Average	113-120	113-119	115-120	120-124	120-124	123-126
Poor	122-131	122-129	124-132	126-132	126-132	128-133
Very Poor	135-169	134-171	137-169	137-171	137-171	135-155

6. Movement Assessments

Overhead Squat

Designed to observe dynamic flexibility on both sides of the body as well as integrated total body strength.

Position

1. Have the client stand with feet shoulder-width apart and pointed straight ahead.
2. Have the client raise his or her arms overhead, with the elbow completely extended. The upper arm should bisect the torso.

Movement

1. Instruct the client to squat to roughly the height of a chair and return to the start position.
2. Have the client repeat the movement five repetitions in each position.

Views

1. View feet, ankles, and knees from the front.
2. View the lumbo-pelvic-hip complex, shoulder, and cervical complex from the side.

Overhead Squat				
View	Checkpoint	Movement Observation	Muscles to Foam Roll or Static Stretch	Example Strengthening Exercises
Anterior	Feet	Turn out	Calf Hamstring	Single-leg balance reach
	Knees	Move inward	Inner Thigh Outer Thigh	Tube Walking
Lateral	Lumbo-pelvic-hip-complex	Excessive Forward Lean	Hip Rotators	Ball Squats
		Low Back Arches	Hip Rotators Lats	Ball Squats
	Upper Body	Arms Fall Forward	Lats Upper/Mid Back	Squat to Row