Healthy Beginnings

Five Step Plan for success and adherence

1. Where am I?
2. Where do I want to be?
3. How do I get there?
4. How do I stay there?

Definition of Wellness: It is the lifelong process of adopting patterns of behavior that can lead to improved health and heighten fulfillment of life. The dimensions of wellness include: (1) physical wellness, 2 social wellness, (3) emotional wellness, (4) spiritual wellness, (5) intellectual wellness, (6) occupational wellness, and (7) environmental wellness. (Some organizations may recognize six to nine.)
Definition of Fitness is the ability or condition of a person to do everyday tasks without undue fatigue.
Health-Related Fitness (HRF) involves attributes and exercise activities that improve physical health and is also defined by five components: (1) cardiorespiratory endurance, (2) muscular strength, (3) muscular endurance (4) flexibility, and (5) body composition.
Skill-Related Fitness (SRF) includes attributes that enhance athletic performance. The six components of SRF include agility, balance, power, speed, coordination, and reaction time.

HEART

Heart rate is the amount of blood pumped by the heart per minute. It is usually expressed in liters per minute. An average resting cardiac output in an adult is 5 liters per minute (about 5 quarts per minute). Heart rate increases during exercise and can reach as high as 35 liters per minute in an elite endurance athlete.
Stroke volume is the amount of blood pumped by the heart per beat. It is usually expressed in milliliters per beat. Resting stroke volume is about 75 milliliters per beat (about 2 ½ ounces of blood per beat). Stroke volume increases during exercise and can be as high as 170 milliliters per beat in an elite endurance athlete.
The point to remember about your heart rate is that the greater the training (overload), the greater the degree of adaptation. The goal is to increase the stroke volume for each heart beat and decrease the number of heart beats. Of course, if you are training for an endurance race, this assumption would be different.

A three minute step test is designed to measure the heart rate in the recovery period following three minutes of stepping. It is considered a non-invasive type of screening. If a person cannot finish the test, he/she should obtain medical clearance before planning any exercise program evaluation.

Three minute step test for males		Three minute step test for females	
Excellent	Less than 71	Excellent	Less than 97
Good	71-102	Good	97-127
Fair	103-117	Fair	128-142
Poor	118-147	Poor	143-171
Very Poor	148+	Very Poor	172+

Cholesterol

(Normal fasting for 12 hours)

Cholesterol		Below 200 mg/dl
HDL (“good cholesterol)		Less than 40 is low
LDL (“bad cholesterol)		Less than 160 Less than 130 is good
Triglyceride		Less than 150 is optimal
Exercising for 30 minutes a day can cut risk of heart of attack by 50%.		

Blood Pressure

Systolic: maximum pressure in blood vessels when heart beats. (Pumps blood to all parts of the body.)			
Diastolic: minimum pressure in blood vessels when heart relaxes between beats. (Blood is returning from lungs to heart.)			
Systolic	Normal	Prehypertension	Hypertension
	120 or less	120 to 130	140 or higher
(over)			
Diastolic	80 or less	80 to 89	90 or higher

Take Control of Your Blood Pressure

- Stop Smoking
- Exercise Routinely
- Maintain A Healthy Diet
- Cut Down on Salt
- Watch Your Alcohol and Caffeine Intake
- Take it Easy When You Can-Relax
- Take Your Medicine

Glucose Level

Normal	70-99	Fasting blood glucose level
Prediabetes	100-125 mg/dl	On two separate occasions
Diabetes	Over 125 mg/dl	

Heart Facts

1. The four major types of cardiovascular disease: coronary artery disease, cerebrovascular (stroke), chronic heart failure, and peripheral vascular disease.
2. There is a 50% reduction in death rates from coronary artery disease and 70% decrease from strokes.
3. Over 90% of all heart attacks occur at rest.

4. The seven major risk factors for coronary artery disease are:
   - Abnormal blood cholesterol
   - Smoking
   - Hypertension
   - Diabetes
   - Family history
   - Sedentary lifestyle
   - Obesity

Healthy Weight

There is no ideal body weight for each person, but there are ranges for a healthy body weight. A healthy body weight is defined as:

1. An acceptable body mass index.
2. A fat distribution that is not a risk factor for illness.
3. The absence of any medical condition such as diabetes or hypertension that would suggest a need for weight loss.

Suggested Weight Chart (without shoes and approximate)

Women (20 yrs +)			**Men (20 yrs +)**		
Height		Weight	Height		Weight
Feet	Inches	Pounds	Feet	Inches	Pounds
4	9	134	5	1	157
4	10	137	5	2	160
4	11	140	5	3	162
5	0	143	5	4	165
5	1	146	5	5	168
5	2	150	5	6	172
5	3	154	5	7	175
5	4	157	5	8	179
5	5	161	5	9	182
5	6	164	5	10	186
5	7	168	5	11	190
5	8	172	6	0	194
5	9	175	6	1	199
5	10	179	6	2	203
5	11	182	6	3	209

Body Mass Index

Body mass index (BMI) is a measure of your weight relative to your height; it correlates with total body fat. BMI is used to estimate the health significance of body weight. BMI estimates body fat but does not actually calculate it. In athletes or others with muscular build, it may over estimate body fat. You may use a table or calculate it using the following formula:

$$BMI = \frac{\text{weight in kg}}{(\text{height in meters})^2} \quad \text{OR} \quad \frac{\text{weight in pounds}}{(\text{height in inches})^2} \times 703$$

BMI

Underweight	Less than 18.5
Healthy Weight	18.5 to 24.9
Overweight	25 to 29.9
Obese	≥30

Body Fat Distribution

Not only the amount but also the distribution of body fat is important in determining your health risk. Fat carried around and above the waist is abdominal fat and is considered more active than fat carried on the hips and thighs. Abdominal fat (central obesity) is a disadvantage because it breaks down more easily and enters the bloodstream more readily. A large abdominal circumference or waist circumference (more than 40" for a man, more than 35" for a woman) is associated with high cholesterol levels and higher risk for heart disease. Waist-to-Hip Ratio can also be used to judge the location of body fat. Divide your waist measurement by your hip measurement. The ratio is indicated below.

Men		Women	
Ratio less than 0.80 (pear shaped)	Low risk	Ratio less than 0.70 (pear shaped)	Low risk
0.81 to 0.99	Moderate risk	0.71 to 0.89	Moderate risk
Ratio at or above 1.00 (apple shaped)	High risk	Ratio at or above 0.9 (apple shaped)	High risk

Factors Influencing Your Weight

If neither of your parents is obese, you have a 10% chance of becoming obese. The risk increases to 80% if both of your parents are obese. Most research will agree that for most people, obesity is a multifactorial disease. Obesity results from an interaction among multiple genes and the environment. Your environment includes:

- Social Environment (family, friends, associates)
- Culture
- Educational Status
- Occupation
- Available Foods
- Daily Routine (work, study, activity)
- Lifestyle (stress, habits, choices, medical conditions)

Nutrition

Unhealthy foods are more available, more convenient, more heavily advertised, and less expensive. What we choose to eat in a single day is unlikely to have a significant effect on our health, but if these choices are repeated over a period of several years they can have a profound effect (positive or negative) on our risk for developing chronic disease. Dietary intake is an important predictor of Type 2 diabetes, cancer, and cardiovascular disease.

Required daily average (RDA) is included in this chart:

Nutrients		
Carbohydrates	45 % - 65%	Total daily calorie intake
Fats	20% - 35%	Total daily calorie intake
Proteins	.8 grams	For average person
Proteins	1 to 1.6 grams	For athlete

Reputable source for nutrition information: mypyramid.gov

There is a strong link between nutrition and the following medical conditions: Hyperlipidemia (cholesterol and triglycerides), Type 2 diabetes, Hypertension, Sleep apnea, cardiovascular disease, Osteoporosis, Obesity, and Cancer.

Calories per gram	
Carbohydrates	4 calories
Fats	9 calories
Proteins	4 calories

To maintain body weight within a healthy range, balance your calories from foods and beverages with calories expended. To prevent gradual weight gain over time, make small decreases in food and beverage calories and increase physical activity. In order to burn 1 pound of body fat, the individual must burn 3500 more calories than they consume.