



Activity, nutrition, hydration and sleep are the everyday behaviors that affect long-term health. These behaviors strongly influence the health, performance and appearance of an individual. A person can determine if his/her habits are producing the desired health benefits by logging activity, nutrition, hydration and sleep patterns.

Logs can help a person see how choices regarding activity, nutrition, hydration and sleep affect fitness and health. An individual can make a plan to improve fitness and health through lifestyle choices based on the information received from these types of logs. The improvement of health, performance and appearance will never fully be achieved without first understanding how activity, nutrition, hydration and sleep work together.

### Activity

Health, performance and appearance are greatly affected by the type and duration of activities engaged in over a lifetime. People who live an active life have a lower risk of suffering from preventable diseases such as heart disease, stroke, cancer, and obesity. They maintain their muscular, skeletal and cardiorespiratory systems, have more energy and vitality, and improve their performance. They also improve their body composition, therefore enhancing their appearance.

Connecting the types of activities, the intensity of the activities, and the length of time spent in those activities are important contributors to long-term fitness. All activities, based on intensity, can be placed into the five categories of the **Five for Life Activity Diamond**, a tool used to distinguish intensity levels during physical activity. The five categories are Media/Seat, Daily Activity, Base, Heart Health and Max. **Media/Seat (1)** includes time spent sitting down in which a person can talk with no effort. **Daily Activity (2)** includes activities that are low in intensity and easy to perform. **Base (3)** activities are moderate, slightly uncomfortable and cause an individual to sweat a little. **Heart Health (4)** activities are vigorous. A person can still talk but it takes quite a bit of effort. **Max (5)** is the highest intensity level and performing activities at this level is very, very difficult. This is called the no talk zone and the activity can only be kept up for a short period of time.

The different levels of the Five for Life Activity Diamond are based on percentages of a person's **maximum heart rate**, which is the highest number of times the heart can beat in one minute. It is accepted that the average maximum human heart rate is 220 beats per minute, minus a person's age. An individual's heart rate might be higher or lower because everyone is different, so 220 is just an average. A common way to figure out a person's average maximum heart rate without doing a complicated test is the **age-adjusted heart rate** of 220 minus the person's age. Based on the age-adjusted formula, 205 would be the maximum heart rate for a 15-year-old.

Watching TV, playing on a computer, doing homework, and reading a book are very sedentary, fit into the **Media/Seat** category and should be kept to a minimum. When performing activities in this category, a person's heart rate will be below 40% of their maximum heart rate and talking should not be difficult at all.

**Daily Activities**, like making the bed, gardening, vacuuming or dusting, are low intensity activities, as are activities such as walking slowly, golfing with a power cart or doing light stretching. Activities such as these will raise a person's heart rate between 40% and 50% of their maximum heart rate.

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## STUDENT INTRODUCTION

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Base activities such as biking, walking briskly, golfing while pulling or carrying clubs, recreational swimming, and weight lifting are higher in intensity than Daily Activities, yet less intense than Heart Health activities. Mowing the lawn with a power mower or scrubbing floors or windows could be included in the Base category. A person's heart rate will be between 51% and 65% of their maximum heart rate and talking requires some effort.

Activities such as race walking, jogging, running, swimming laps, circuit training, or moving or pushing furniture could be in the Heart Health category. Heart health activities will increase a person's heart rate to 66% - 85% of their maximum heart rate. Talking at this level is difficult.

Jumping rope and sprinting are examples of activities in the Max category. Activities at this level can only be done for short periods of time, talking is nearly impossible and the heart rate is above 85% of a person's maximum heart rate.

The Five for Life recommendation to maintain a fit and healthy life is to perform 60 minutes of Heart Health or Base activity per day, five days per week. Because time spent on activity to enhance health, performance, and appearance depends on intensity, a person participating in lower intensity activities would have to spend more time than a person participating in higher intensity activities to receive the same benefits.

Using an activity log can help a person evaluate personal activity patterns in an average day and can help determine if he or she is meeting the recommendation to maintain a fit and healthy lifestyle. If a person's activity level is too low, he/she can see this at a glance and begin to plan how to increase daily activity.



Key vocabulary words that will be introduced during this unit are:

- **Activity Log** – A system used to monitor a person's activity habits
- **Age-Adjusted Maximum Heart Rate** – A method used to calculate maximum heart rate ( $220 - \text{Age}$ )
- **Base** – 51-65% of the maximum heart rate
- **Daily Activity** – 40-50% of the maximum heart rate
- **Five for Life Activity Diamond** – A tool used to distinguish intensity levels during physical activity
- **Heart Health** – 66-85% of the maximum heart rate
- **Max** – 86-100% of the maximum heart rate
- **Maximum Heart Rate** – The highest number of times the heart can beat in one minute
- **Media/Seat** – Below 40% of the maximum heart rate

Health Heart Range

$220 - \text{Age} \times .65$   
 $220 - \text{Age} \times .85 > \text{Range}$