

Name: _____ Date: _____ Ambient heart rate: _____

One of the values of participating in health and physical education classes is that you can get fitter. Measuring fitness improvement is easy using a heart rate monitor. You have already learned three fitness improvement assessments that provide the data to demonstrate fitness improvement:

- ▶ Delta heart rate
- ▶ Recovery heart rate
- ▶ Ambient heart rate

Each of these measures a different heart rate response. Physical training leads to physical and emotional adaptations that may change these heart rate responses. If training load (i.e., the amount of exercise training) is appropriate, these heart rates will improve. If the training load is inadequate or too high, these heart rates will generally show little to no improvement.

Improvement (or a lack of it) is the result of physiological and structural changes that occur to the heart, lungs, and muscles. For example, training strengthens the heart muscle by enlarging it (also known as hypertrophy, resulting in athlete's heart). By measuring improvement, you will know whether your cardiac function is improving. Heart rate responses are shown in the following table:

HEART RATE RESPONSES

Heart rate measure	Fitness gain	Fitness loss
Ambient heart rate	Lower	Higher
Delta heart rate	Lower	Higher
Recovery heart rate	More heartbeats	Fewer heartbeats

Instructions

1. Each week, complete these self-assessments:
 - ▶ Delta heart rate test
 - ▶ Recovery heart rate test
 - ▶ Ambient heart rate tests
2. Record your data in your Weekly Log.
3. Starting with week 2, calculate your heart rate changes by comparing the current week's data with those of the previous week. Note whether the change is positive or negative.

4. Record your weekly results on a class chart for averaging the total class change.
5. Calculate the difference between your test results and the average change for the entire class.

Questions

Why is measuring fitness improvement important?

What happens to your heart rate when your training load is too hard or you overtrain?

What does training adaptation mean?

What is athlete's heart? Is it healthy?

What I learned: