

Step 3: Instruct

What is the basis for proper instruction?



Based upon the principles of proper biomechanics and exercise physiology, the personal trainer will teach proper exercise technique and make appropriate modifications. You must advise your clients by using both scientifically proven principles of training combined with effective coaching skills. This will influence them into taking action, and ultimately move them closer to the results they desire. The Polar F11 can instruct your clients in maintaining proper exercise intensity - whether you are present or not.

Step 4: Re-assess

What specifically must the personal trainer re-assess?

The personal trainer will continually assess the progress of the client on both a micro level and intermittently assess on a macro level. Micro assessment is close monitoring of every exercise repetition. If form breaks down, you should be able to identify the cause (roughly speaking, as this can be very difficult and complex) before you can expect to design the appropriate exercise in order to see marked improvement.

Remember: Every rep of every set is an assessment!!!

Macro assessments are the 1-2 month follow-up to the assessments which were completed in the first step. This will show if you designed the workout properly and whether your instruction and coaching has been beneficial in producing the desired client results! If results are not acceptable (or exceptional) from the client's perspective, changes must be made (to redesign or make necessary program changes and reestablish new goals). This task becomes easier



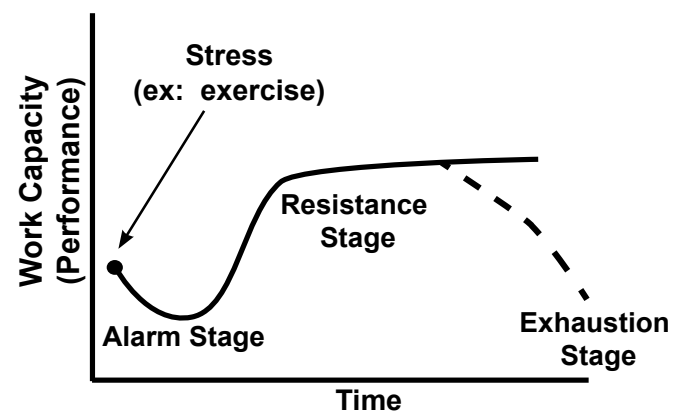
with experience as you commit to listening to your client and apply their assessment information toward bridging the gap between their personal needs and wants and their individual goals. Make certain your client understands that your advice must be followed explicitly, or you cannot be certain of the results.

Polar HRMs are very effective for objectively assessing performance, intensity, and recovery. Unlike RPE (Rate of Perceived Exertion), the heart does not lie - it shows the response of the body at any moment in time.

Exercise Science 101 - A Quick Review

How Does the Body Adapt to Exercise?

• GAS



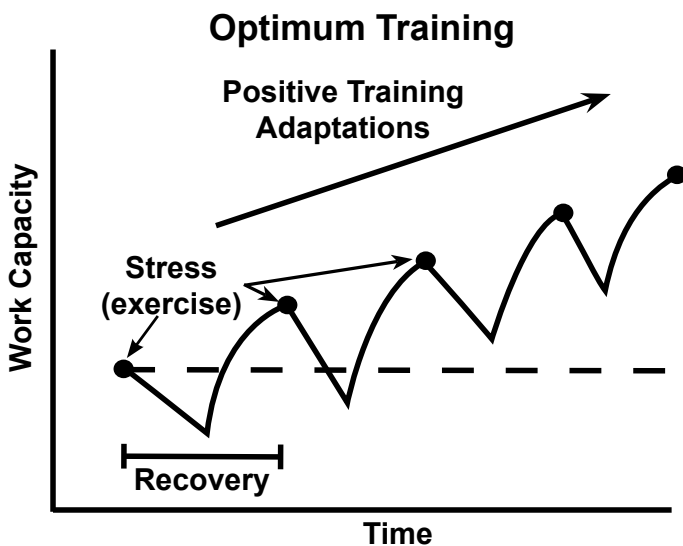
- The human body is an amazing machine that is able to adapt to the stress that is placed upon it. The process of adaptation due to stress is known as **General Adaptation Syndrome (GAS)**. The body first reacts to stress by entering the **Alarm Stage** - the "flight or fight" stage where the body prepares for physical activity. Next is the **Resistance Stage**, where the body attempts to adapt in order to cope with the stress. Lastly, if the stress persists the body's resources are depleted, and the body enters the **Exhaustion Stage**.

• Optimum Training

These physiological adaptations are the premise of exercise. Your role is to **Assess** what type of stress (exercise) is needed to meet a client's goals, **Design** the appropriate exercise program (stress), and **Instruct** proper execution of the program.

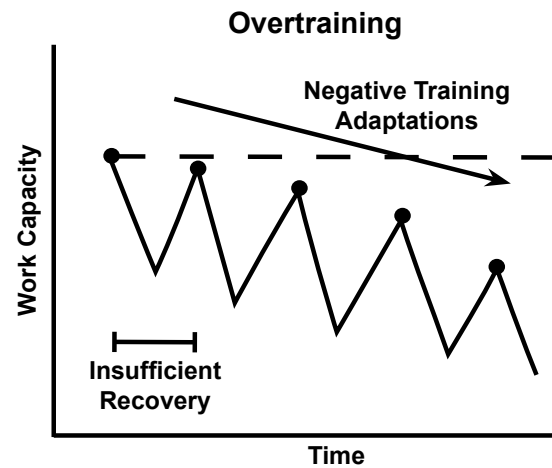
Too much of any type of stress can be detrimental to health (even too much exercise!). Prioritizing events in your client's busy life can be challenging which is stressful. Identifying good stressors (eustress) such as implementing a properly planned exercise program may decrease the effects of bad stressors (distress) and improve quality of health.

When a stress (exercise) causes the body to increase effort beyond normal levels, the body is put into "**Overload**". Overload will temporarily decrease the body's ability to do work (**Work Capacity**). After the body has had enough time to recover from exercise, work capacity increases to a level greater than the original. Please look at the figure below labeled "Optimum Training". Not only is the proper form of overload (stress/exercise) important, the proper amount of time between trainings (**Recovery**) is crucial.



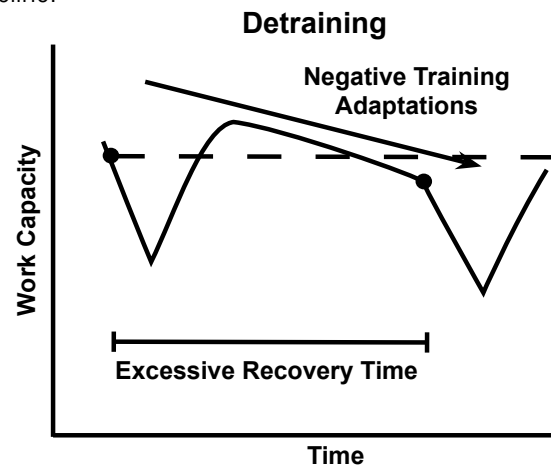
• Overtraining

What happens when the stress is too intense and/or there is insufficient recovery time? This is called **Overtraining** and work capacity decreases. The result will be fatigue, increased chance of illness, and no progress in fitness.



• Detraining

If the time between exercise sessions is too long (excessive recovery), detraining occurs. Muscle will atrophy and overall performance will stagnate or decline.



Intensity and Recovery

The two primary components to General Adaptation Syndrome are intensity and recovery. Stimulating the body with the proper stress is vital (intensity), but getting the proper recovery is crucially important (rest). Adaptations do not only occur during exercise. Positive adaptations are happening during rest (both between sets and between workouts). **Finding the proper balance between intensity and recovery is essential in developing successful exercise programs.**

How are intensity and recovery typically measured? By Rate of Perceived Exertion (RPE). RPE, by definition of "perceived", is subjective. Heart rate is an objective measure of exercise intensity. The most efficient way to use the quantitative data from a Polar F11 is to also take into account the qualitative feedback of RPE.