

Optimum Results Heart Rate Training

Train Smart!

Most of us spend over 50% of our workout time doing cardio...

Are you getting the results you want?

Do you end up doing the same thing day-in and day-out?

Are you faced with boredom, injuries, and a lack of motivation?

Why do over 50% of new exercisers drop out within six months?

Optimum Results will help you achieve their goals

- ❑ Optimum Results is a dynamic, motivational training system based on science and research
- ❑ Frequency, intensity and duration of exercise are determined by your own heart rate or perceived exertion
- ❑ You can target specific goals with specialized, individualized workouts.

Why Heart Rate Based Exercise?



- ❑ It is difficult when exercising to know exactly how hard we are working.
- ❑ Many factors influence your response to exercise – heat, humidity, dehydration, stress, over-training etc.
- ❑ Monitoring your heart rate during exercise will enable you to stay at the proper intensity level.

Meeting Your Personal Goals



- ❑ Heart rate based training is specific to you.
- ❑ Exercise programs based on heart rate are the most effective way to measure and monitor your fitness program.
- ❑ Your cardiovascular program can be adjusted to meet goals such as fat loss, cardiovascular health and improved performance.

Heart Rate Terms

- ❑ Resting Heart Rate – the number of times your heart beats in a minute while at rest. This is a measure of fitness.
- ❑ Maximum Heart Rate – The highest number of beats per minute that your heart can beat. Max HR is determined by age and genetics.
- ❑ Lactate Threshold – The point where the intensity levels switches from aerobic to anaerobic.

Are you ready for RESULTS?



Taking Your Heart Rate



- ❑ Manually, using a 10 second count.
- ❑ Using a heart rate monitor ex. Polar. This is convenient, affordable, and motivational.
- ❑ Using exercise equipment with heart rate sensors ex. LifeFitness.

Let's Look at How our Body Uses Fuel

- Our bodies run on two basic fuel sources – Fat and Glycogen.
- Both are burned at the same time.
- The fuel mix is determined by your intensity.

Glycogen

- Glycogen is stored in the muscles, it is readily available as a fuel source.
- Glycogen is in limited supply – 2000 calories or roughly 2 – 2 ½ hours worth.
- Your body takes 48 hours to replenish muscle glycogen.

Fat

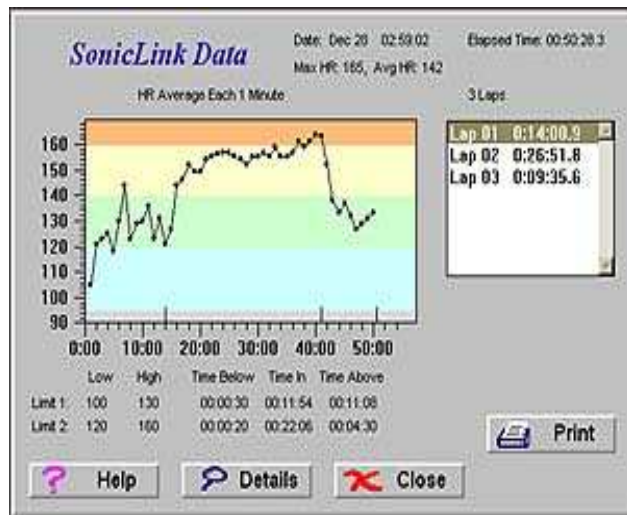
- ❑ Fat is stored far away from the muscles. Fatty acids must travel to the working muscles.
- ❑ Fat takes longer to access as a fuel source.
- ❑ We have an inexhaustible supply of fat.
- ❑ Our bodies are designed to burn fat as its primary fuel source.

Level 1 Foundation Training

55 - 70% Max HR.

- ❑ Low intensity, long duration exercise.
- ❑ So easy, you feel guilty!
- ❑ Burns a higher percentage of fat and spares glycogen (lower total calories).
- ❑ New to exercise? It's "doable"
- ❑ Level 1 is the foundation for our "aerobic base".
- ❑ Provides active recovery for those with a high level of fitness.

Training Tip



- Long / easy workouts should be scheduled for the day you have the most time – usually Saturday or Sunday
- Short active recovery workouts can be as little as 20 minutes
- For advanced trainees this means slowing down on certain days!

Level 2

70 – 80+% of Max HR.

- ❑ Physical responses include increased breathing and perspiration
- ❑ More calories are burned using both fat and glycogen
- ❑ Endurance - the ability to maintain an activity for a prolonged period of time improves
- ❑ Most exercisers settle into this level
- ❑ ***Too hard for recovery / not hard enough to raise fitness ceiling***

Training Tip

- Level 2 - “The Fun Zone” - Pick up to 2 favorite workouts or classes and stick with them.
- Schedule your Level 1 and Level 3 workouts around your favorites.

Level 3

80 – 95% of Max HR.

- ❑ Shorter duration – “quality” over “quantity”
- ❑ Level 3 is Lactate Threshold Training
- ❑ Hard efforts are always accompanied by a warm-up and cool-down.

Level 3 cont.

- Exercise at level 3 is hard but it's based on your individual heart rate.
- These workouts burn a high number of calories in a short period of time.
- This training improves your fitness level raising your "fitness ceiling"

Interval Training

- ❑ Intervals combine hard efforts with periods of low intensity recovery
- ❑ Intervals can be based on time or distance
- ❑ Intervals should not exceed 95% Max HR - research shows the benefits are not worth the cost
- ❑ Always finish feeling strong – you should feel like you could do another interval

Sample Interval Workout

- 10-minute warm-up
- 8 x 1minutes at 90% with 1-minute recovery between each
- 10-minute cool-down

Total time: 36 minutes

Tempo Training

- ❑ Not as hard as interval training
- ❑ Longer sustained effort
- ❑ Heart rate range 80 – 90+/-% Max HR
- ❑ Ideal “tempo” workout up to 20 minutes at or slightly below lactate threshold

Sample Tempo Workout

- 10-minute warm-up
- 15 minutes at just below threshold
- 10-minute cool down

Total time: 35 minutes

Achieving Results with Heart Rate Training

- ❑ Think of a stereo system – to hear quality sound you must combine several components
- ❑ Your training must incorporate adequate doses of recovery with hard training
- ❑ Level 2 exercise needs to be a part of, not the whole, exercise program

Summary

- ❑ Let your heart rate be your guide
- ❑ This is very objective and will help keep you from over-training or under-training
- ❑ Cross-train – remember your heart does not distinguish between running, walking or cycling
- ❑ Heart rate based training provides variety
- ❑ Test and measure your progress

Heart Rate Formulas



- Max HR = $220 - \text{age}$
- Karvonen Training
 $\text{HR} = (\text{Max HR} - \text{Resting HR}) (50-90\%) + \text{Resting HR}$
- Athletes Max HR = $205 - \frac{1}{2} \text{ Age}$ (add 5 for women, add 5 if you've been training 5 years or more)

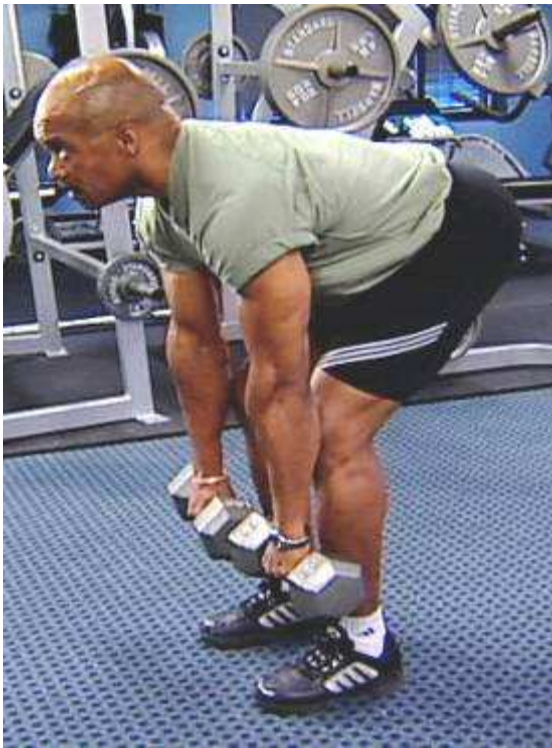
Heart Rate Tests

- ❑ Conconi – Maximum heart rate test. Gradually increase intensity every 200 meters or one minute. Test should have at least 15 steps. Look for a plateau in heart rate or muscular exhaustion.
- ❑ Aerobic Ramp – 4 five minute steps of easy to middle intensity. Record all data. Duplicate test in 4 – 6 weeks.

Training Tips

- Hard Days should be short duration and very hard – it doesn't do any good to do spinning class then get on the elliptical
- Easy days need to be “easy” – this prepares your body for the upcoming hard day

Training Tips



- ❑ Metabolic Strength Training – do 15 minutes of intervals before total body strength
- ❑ Strength Training – use heart rate to determine recovery between sets
- ❑ Hard strength and cardio days? Do them on the same day
- ❑ Recovery days are “recovery” only