



THE SWIMMER'S HEART RATE MONITOR



**Exclusive Monitor Specifically Designed for Swimming
Utilizes Patented Bone-Conduction & Infrared Technology**

- Audibly transmits your active heart-rate while you are swimming
- Attaches easily to any swim goggle and clips to the ear-lobe
- No chest straps or watches needed!

Background Description:

Heart rate is the only accurate measurement of your intensity or your exertion level, and a heart rate monitor is the easiest and most precise way to continuously measure your heart rate. By understanding and monitoring your ideal heart-rate “zone” while training, you are able to consistently train your body at the optimum fitness levels. Knowing the work “zone” for your heart prevents over-training, under-training, and encourages correct pacing. As a result Heart rate monitors (HRM's) can show you when you're dehydrated, running out of nutrition, or not recovered from a previous day's workout.

For the past decade, heart rate training has been utilized by the top athletes in all sports in order to improve their training levels. To take advantage of all the benefits a heart rate monitor, you will need to first calculate your various work-rate “zones” including your maximum heart rate (MHR) and resting heart rate (RHR). These zones will differ depending on age, gender, and body weight, but knowing your zones will guide your training and exertion levels during your workout. With these “zones” set, you can monitor improvement and efficiently while training.

Current versions of HRM's consist of a watch worn on your wrist, and a transmitter that you wear against your skin, most often around your chest. The transmitter picks up the signals of your heart and sends them wirelessly to the watch you wear on your wrist. This setup may be good for running and dryland training, but is quite awkward and inconvenient for training in the water. The chest strap is cumbersome for swimmers, often loosening or falling off, resulting in an inaccurate heart rate. Additionally, if a swimmer is using current HRM's, he or she can only read their heart rate while stopped. Thus, the swimmer will receive skewed results during stoppage rather than immediate and continuous feedback while swimming. As a result, current HRM's do not provide a precise understanding of the training heart rate during aquatic fitness exercises such as swimming.



The new FINIS HRM has been created specifically for swimmers. Its water proof design changes both how the heart rate is sensed and how the heart rate is transmitted to the user. All functions are integrated into one small unit that the user clips on to their goggle strap and rests on their temple.

The FINIS HRM uses an accurate infrared sensor that clips to the earlobe in order to pick up the swimmer's heart rate. By measuring the light pulses due to capillary blood flow in the skin, the sensors calculate the number of beats/minute (b/m) that the body is working. The internal computer then audibly communicates this heart rate to the user using the revolutionary Bone-Conduction Technology. Humans normally hear through air conduction, but because there is no air underneath the water, bone conduction provides the clearest sound quality possible. In utilizing bone-conduction, the sound vibrations are communicated through the temple bone to the inner ear where sound is transferred. By simply turning the unit on, the user's heart rate can be sensed and automatically communicated during the swim.

As a result, a swimmer can train in their proper 'heart-rate zone' more accurately. The athlete is not hindered by awkward straps and watches, and they can continually swim and understand their heart rate without stopping.

The FINIS HRM consistently communicates the heart rate every pre-set time period. The user can program this time period from as little as 20 seconds up to 5 minutes, allowing for continuous feedback during training. The FINIS HRM also features an instantaneous heart rate function. The user can simply press a button at any time and their most current b/m will be communicated.



How it Works:

The **HEART RATE MONITOR** by FINIS takes on a whole new realm of heart-rate technology, by blending proven **Bone-Conduction** development with accurate **Infrared Sensors**. The result is a new monitor specifically designed for the swimming world.

The HRM attaches easily to any goggle strap, with the **Infrared Sensors** clipped to the swimmer's ear-lobe. The specific heart-rate is picked up through the sensors and then audibly transmitted to the swimmer through **Bone-Conduction**.

When the HRM is placed on any bones of the skull (i.e. the cheek bones or the mastoid tip) it leads to vibration of the fluid in the inner ear. Therefore, users of the HRM will be able to clearly hear their

heart-rate while swimming. **Bone-Conduction** hearing is a safe, well established hearing mechanism in humans that the HRM leverages to enhance sound-clarity in the water.

FINIS's application of the new **Bone-Conduction** and **Infrared Sensor** technologies brings an entirely new level of experience to swimmers. Now users are able to understand their specific heart rate while in the middle of the pool, giving consistent feedback during the swim. No cumbersome chest straps or watches are needed! All the audible settings on the HRM are adjustable and the unit is completely submergible and waterproof.

Features:

- Custom Sound Technology: Audibly transmits heart rate utilizing high-fidelity BONE CONDUCTION TECHNOLOGY
- Infrared Sensors: Accurately pick up heart rate in ear lobe
- Digital Control Panel
- Volume Control
- Adjustable Time Period (Preset Periods: 20seconds, 30seconds, 45seconds, 1minute, 2minutes, 5minutes)
- Instantaneous Heart Rate Button
- 8-Hour Lithium-Ion Rechargeable Battery
- Durable Goggle and Earlobe Clips
- Approx 3.5" in height, 1.5" in width, and 0.5" in depth

Includes:

- Heart Rate Monitor
- Carrying Case
- Instruction Manual

Requirements:

- USB Port for Charging via Computer or USB Wall Adapter

Features	Benefits
Small Slender Design	Easily clips on to goggle for a non-cumbersome fit that you can hardly feel
Infrared Heart Rate Sensor	Provides an accurate heart rate reading by sensing light variations under the skin
Audio Transmission of Heart Rate	Receive continual feedback of heart rate zones without stoppage
Patented Bone Conduction Technology	Transfers crystal-clear sound through the water
Programmable Settings	Allows user to pre-set time period that heart rate is communicated
Instant Heart Rate Button	Receive current heart rate at any time
Rechargeable Lithium-Ion Battery	Provides 8+ hours of usage through USB charge