

# **Firstbeat Reports**

# **Eddie Example**

More information: www.firstbeat.fi/work-well-being



FIRSTBEAT

### STRESS AND RECOVERY OVERVIEW

### **Eddie Example**

Age (yrs) 34 Resting HR (beats/min) 38 Height (in) Max HR (beats/min) 188 Weight (lb) Body Mass Index (BMI) 27.8

Activity class 7.0

#### Measurement information:

Day 1 Day 2 Start time: Start time: 19.08.2011 06:31:30 18.08.2011 07:00:01

Duration: 23h 27min Duration: 26h 2min HR: (low/avg/high) HR: (low/avg/high) 39 / 57 / 135 41 / 66 / 166

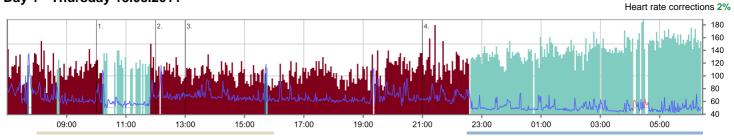
Day 3

Start time:

20.08.2011 08:33:33 Duration: 23h 19min HR: (low/avg/high) 43 / 70 / 167

### **Stress and Recovery Charts**

### Day 1 - Thursday 18.08.2011



#### **Journal Markers**

- Meeting
- 2. Eating
- Computer 3.
- Computer

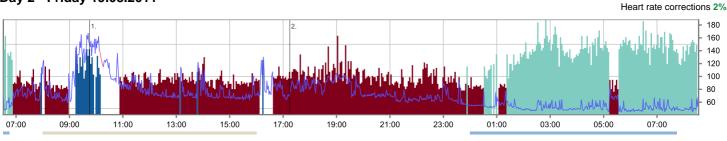
#### Result

- 13h 30min (58%) 8h 18min (35%)
- 5min (0%)

#### Recommendation

- Less than 55% More than 30%
- 1h 34min (7%)

### Day 2 - Friday 19.08.2011



### Journal Markers

- Light exercise
- Gardening/DIY

### Result

- 15h 28min (59%) 7h 19min (28%)
- 60min (4%)
- 2h 14min (9%)

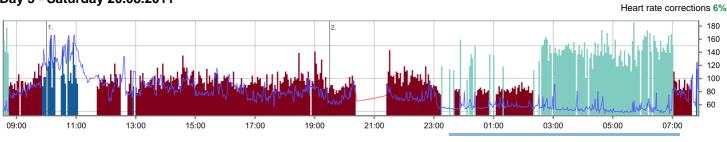
#### Recommendation

- Less than 55%
- More than 30%

### Day 3 - Saturday 20.08.2011

Work period

Stress reactions



#### **Journal Markers**

- Hard exercise
- TV

### Result

- 13h 37min (58%) 4h 46min (20%)
- 1h 4min (5%)
- 3h 53min (17%)

  - Corrected heart rate Other physiological states

Provided by:

This report has been produced by Firstbeat Health (v 5.2.0.95) 27.06.2012 12:29 More information: www.firstbeat.fi/work-well-being

Sleep period

Recovery

Heart rate

Physical activity

FIRSTBEAT

Recommendation

Less than 55%

More than 30%

### STRESS AND RECOVERY OVERVIEW

#### Additional information:

#### Day 1

Medication

Alcohol: **0 units** Self-reported sleep:



Day 2

Alcohol: 0 units Self-reported sleep: Medication Burana 1\*400mg



Day 3

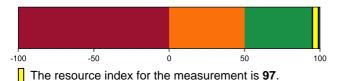
Alcohol: **3 units**Self-reported sleep:
Medication



### Overview of sleep

### Day 1 - Thursday 18.08.2011

The balance of resources during sleep.



The index is calculated based on the duration of stress and recovery reactions.

Quality of recovery during sleep.

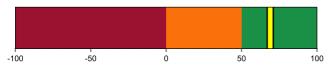


Your sleep quality index based on heart rate variability (RMSSD) is **78 ms**. The average value for your age is 44 ms.

Your sleep time was 7h 57min. It is recommended to sleep 7 hrs or more per night.

### Day 2 - Friday 19.08.2011

The balance of resources during sleep.



The resource index for the measurement is **69**.

The index is calculated based on the duration of stress and recovery reactions.

Quality of recovery during sleep.

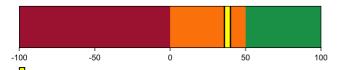


Your sleep quality index based on heart rate variability (RMSSD) is **64 ms**. The average value for your age is 44 ms.

Your sleep time was 7h 59min. It is recommended to sleep 7 hrs or more per night.

### Day 3 - Saturday 20.08.2011

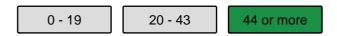
The balance of resources during sleep.



The index is calculated based on the duration of stre

The index is calculated based on the duration of stress and recovery reactions.

Quality of recovery during sleep.



Your sleep quality index based on heart rate variability (RMSSD) is **57 ms**. The average value for your age is 44 ms.

Your sleep time was **7h 45min**. It is recommended to sleep 7 hrs or more per night.

Weak recovery Moderate recovery Good recovery

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Day 3

Start time:

### HEALTH PROMOTING PHYSICAL ACTIVITY OVERVIEW

### **Eddie Example**

Age (yrs) 34 Resting HR (beats/min) 38 Height (in) Max HR (beats/min) 188 Weight (lb) Body Mass Index (BMI) 27.8 Activity class 7.0

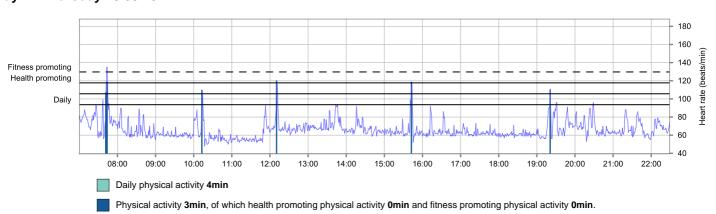
Measurement information:

Day 1 Day 2 Start time: Start time: 18.08.2011 07:00:01 19.08.2011 06:45:00

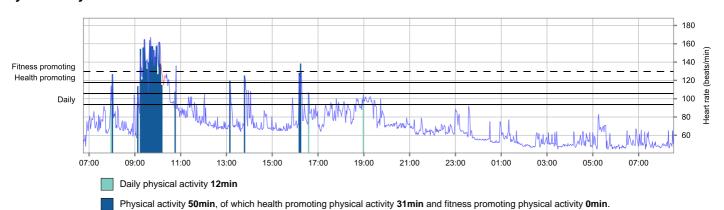
20.08.2011 08:33:33 Duration: 15h 30min Duration: 25h 49min Duration: 23h 19min HR: (low/avg/high) HR: (low/avg/high) HR: (low/avg/high) 39 / 57 / 135 41 / 66 / 166 43 / 70 / 167

### **Health Promoting Physical Activity Charts**

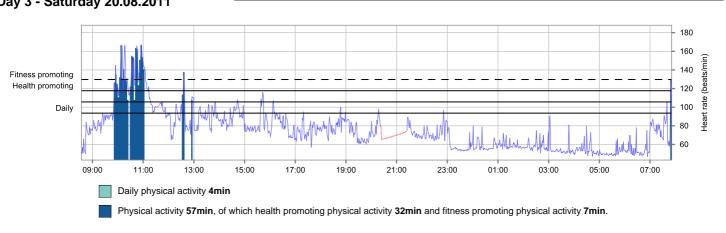




### Day 2 - Friday 19.08.2011



### Day 3 - Saturday 20.08.2011



Corrected heart rate Heart rate

Provided by:

Analyzed by: IRSTBEAT

### HEALTH PROMOTING PHYSICAL ACTIVITY OVERVIEW



#### Physical Activity Index

In order to achieve a GOOD score, you should perform approximately 30 mins of health promoting (moderate intensity) physical activity. Physical activity performed at light to moderate intensity or < 30 mins will result in a MODERATE to POOR score.

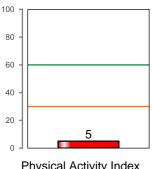


### Energy expenditure during physical activity

The energy expenditure value indicates the consumed energy (kcal) during physical activity above basal energy expenditure. The recommended levels shown in the figure are determined based on body weight.

### **Health Effects and Energy Expenditure**

Day 1 - Thursday 18.08.2011

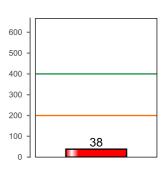


Physical Activity Index

**GOOD** 

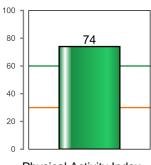
**MODERATE** 

**POOR** 



Energy expenditure during physical activity (kcal)

Day 2 - Friday 19.08.2011

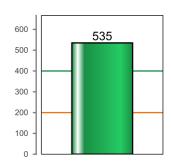


Physical Activity Index

GOOD

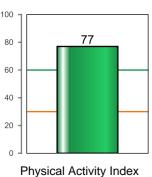
**MODERATE** 

**POOR** 



Energy expenditure during physical activity (kcal)

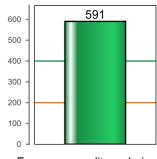
Day 3 - Saturday 20.08.2011



GOOD

**MODERATE** 

**POOR** 



Energy expenditure during physical activity (kcal)

Definite positive effects.

Some positive effects.

Not enough positive effects.

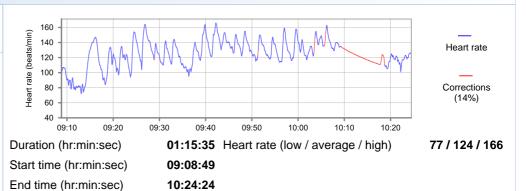
Provided by:

Analyzed by: FIRSTBEAT

### TRAINING EFFECT REPORT

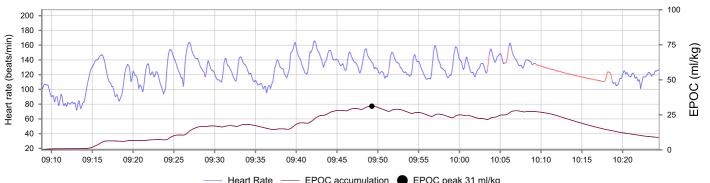






### **EPOC** and training effect chart

EPOC (ml/kg) accumulation during the measurement. The effect of training on maximal aerobic power (VO2max) is based on the EPOC peak.



#### **Training Effect: Maintaining fitness**

2.2

**Benefits:** This workout maintains cardiorespiratory fitness and builds a foundation for better fitness and harder training in the future.

**Recommended:** For all as an essential part of any training program.

#### Exercise key figures

 EPOC
 31 ml/kg

 TRIMP
 90 TRIMP

 Energy Expenditure
 645 Kcal



**EPOC (Excess Post-exercise Oxygen Consumption)** is a physiological measure of training load. The amount of EPOC achieved during exercise is directly proportional to the training load and recovery required. **TRIMP (Training Impulse)** is a measure of quantifying training load and it accumulates during the workout as a function of time and intensity level.

# **Training classification**

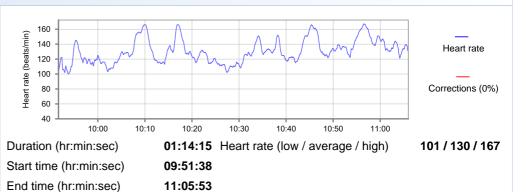


Provided by:

### TRAINING EFFECT REPORT

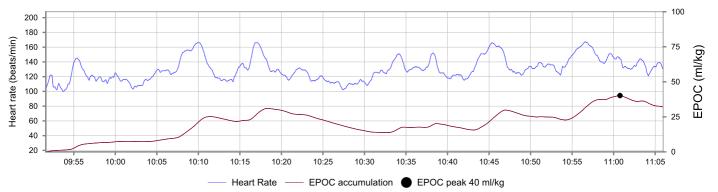
### **Eddie Example**





### **EPOC** and training effect chart

EPOC (ml/kg) accumulation during the measurement. The effect of training on maximal aerobic power (VO2max) is based on the EPOC peak.



#### **Training Effect: Maintaining fitness**

Benefits: This workout maintains cardiorespiratory fitness and builds a foundation for better fitness and harder training in the future

Recommended: For all as an essential part of any training program.

#### **Exercise key figures**

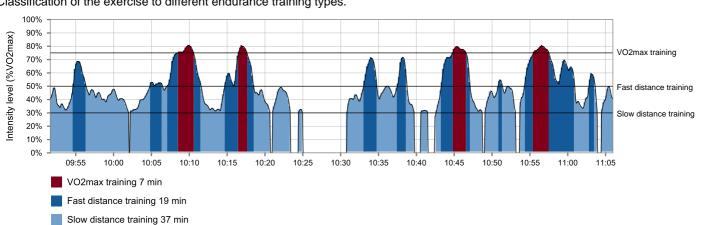
**EPOC** 40 ml/kg TRIMP **TRIMP** 101 **Energy Expenditure** 734 Kcal



EPOC (Excess Post-exercise Oxygen Consumption) is a physiological measure of training load. The amount of EPOC achieved during exercise is directly proportional to the training load and recovery required. TRIMP (Training Impulse) is a measure of quantifying training load and it accumulates during the workout as a function of time and intensity level.

# **Training classification**

Classification of the exercise to different endurance training types.



Provided by:

### LIFESTYLE INSPECTION

38

Resource index



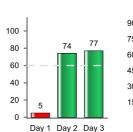
Age (yrs) 34 6' 0" Height (in) Weight (lb) 205 38 Resting heart rate (beats/min) Max heart rate (beats/min) 188 Body Mass Index (BMI) 27.8 Activity class 7.0

#### Measurement information:

Day 1 (18.08.2011) 07:00 Duration 23h 27min

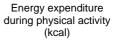
Day 2 (19.08.2011) 06:31 Duration 26h 2min

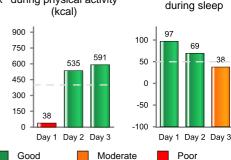
Day 3 (20.08.2011) 08:33 Duration 23h 19min



Recommendation

Physical activity index





### **Physiological Reactions During Work Periods**

These reactions occurred during the time that was marked as work in the journal.

Average daily physical activities

Average recovery reactions

Good > 10 min 30 min or more

Moderate 6 - 10 min 15 - 29 min

Poor 0 - 5 min Your result 44min

0 - 14 min

29min

The longest relaxation period during work was 8min (on 18.08.2011 10:16 - 10:25)

# **Physiological Reactions During Leisure Time**

These reactions occurred during the time that was not marked as work or sleep in the journal.

Average health promoting physical activity

Effect of the most demanding physical activity on fitness improvement (On 20.08.2011)

Average recovery reactions

The longest relaxations period was 23min (on 20.08.2011 07:49 - 08:12) Average energy expenditure during

physical activity.

> 20 min

Good

Overreaching improving effect 5 4

Highly

Improving effect 3

Moderate

11 - 20 min

Maintaining effect

Minor effect

1

Poor

0 - 10 min

Maintaining effect (2.4)

Your result

11min

Good Poor Moderate

60 min or more 15 - 59 min

400 kcal or more

200 - 399 kcal

0 -199 kcal

0 - 14 min

388 kcal

23min

# **Physiological Reactions During Sleep Periods**

These reactions occurred during the time that was marked as sleep in the journal.

Average resource index

Average quality of recovery (RMSSD)

Average time used for sleeping

50 - 100 40 or more

Good

Moderate 0 - 49

20 - 395.5 - 7 h -100 - -1 0 - 19

0 - 5.5 h

Poor

68 66

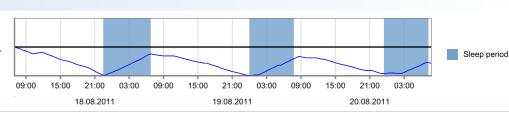
Your result

7h 54min

Average recovery reactions during the sleep periods was 6h 6min.

# **Body Resources**

The effect of stress and recovery on the body's resources. When the line goes down, this indicates the use of the body's resources. When the line goes up, this indicates the replenishment of the body's resources.



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Analyzed by: RSTBEAT

### **DEFINITIONS OF TERMINOLOGY**



#### Stress and Recovery

**Stress reactions** means an increased level of physiological activation and alertness caused by either internal or external stressors. Stress is not entirely a negative phenomenon but instead can be considered a positive resource.

**Recovery** is a lowered level of physiological activation caused by a decrease or absence of stressors. **Physical Activity** means time periods during which the intensity is greater than 30% of one's maximal capacity.

**Other physiological states** mean time periods that are not detected as physical activity, stress or recovery (white areas in the chart). For example, measurement breaks and recovery from physical activity are detected as other physiological states.

**The resource index** is calculated from the duration of stress and recovery reactions during sleep. The index gets a negative value (red zone) if the amount of stress during sleep is greater than the amount of recovery. When > 75% of sleep time is recovery, the index is located in the green zone.

**The sleep quality** is based on RMSSD, which is a measure of heart rate variability. Low values of RMSSD during sleep indicate poor recovery and higher values indicate enhanced recovery. The average RMSSD value should be 20 ms or greater during sleep.

#### **Physical Activity**

**Daily physical activity** means time periods of very light activity during which the intensity is 20-30% of one's maximal capacity.

**Health promoting physical activity** means time periods during which the intensity is moderate & greater than 40% of one's maximal capacity, with positive health effects.

**Fitness promoting physical activity** means time periods during which the intensity is greater than 50% of one's maximal capacity, with positive health and fitness effects.

**Physical activity recommendations:** Aerobic physical activity should be performed at moderate intensity for at least 2½ hours a week, or at vigorous intensity for at least 1 hour and 15 minutes a week, or an equivalent combination of moderate- and vigorous-intensity activity. This recommendation is for the healthy adult to maintain health and reduce the risk for chronic disease. (Source: American College of Sports Medicine 2008).

**Effects of physical activity on health:** Regular physical activity promotes health and prevents illnesses. Even short increases in physical activity improve cardiorespiratory fitness and promote health. In addition, energy expenditure is higher and blood pressure is lower for several hours after the physical activity. Both light and hard physical activity is required for better fitness.





### **GOALS**

Please, set some concrete and realistic goals for making changes in your lifestyle. Work I will take regular breaks and won't deal with work tasks during the breaks. I will remember to drink and eat regularly and healthily, even when I'm busy. I will set a realistic work schedule / won't promise to do things that I don't have time to do. ■ I will draw attention to ergonomics: e.g. correct posture and the possibility to use assistive devices. I will value my leisure time / set a "no-later-than" time for leaving work. Leisure time ■ I will engage in recovery activities that I feel work best for me (e.g. relaxation techniques, watching TV, reading). I will remember to spend time with people who are close to me, even when I'm busy. I will reduce my alcohol consumption. I won't pile up too much activity for leisure time, but will also leave room for recovery. I will lose weight by \_\_\_\_ kg/month OR \_\_\_\_ kg by \_\_\_\_. \_\_ 20\_ ☐ I will attempt to engage in physical activity/exercise at least \_\_\_\_ times per week. I will continue to engage in my hobbies because positive experiences enhance my well-being. I will draw special attention to recovery activities on weekends and holidays. I will learn to say "No". I will increase my amount of daily activity, e.g. by taking the stairs instead of the lift, and walking/biking whenever possible. ■ I will maintain a regular meal rhythm (2-3 meals + 1-3 snacks per day). I will pay attention to the quality of what I eat; e.g. avoid products that contain excessive fats, sugar or salt. I will stop smoking / chewing tobacco. Night and sleeping I will avoid high-intensity exercise late at night. I will avoid heavy meals just before bedtime. I won't think about or do stressful tasks just before bedtime (e.g. work / e-mail). I will attempt to go to bed early enough to get enough sleep (app. 7-8 hrs). I will engage in activities that I find relaxing and help me to fall asleep (reading, listening to music, making love, gentle stretching, etc.) **Notes**