

# How I Improved my BP Via Anaerobic Interval Training

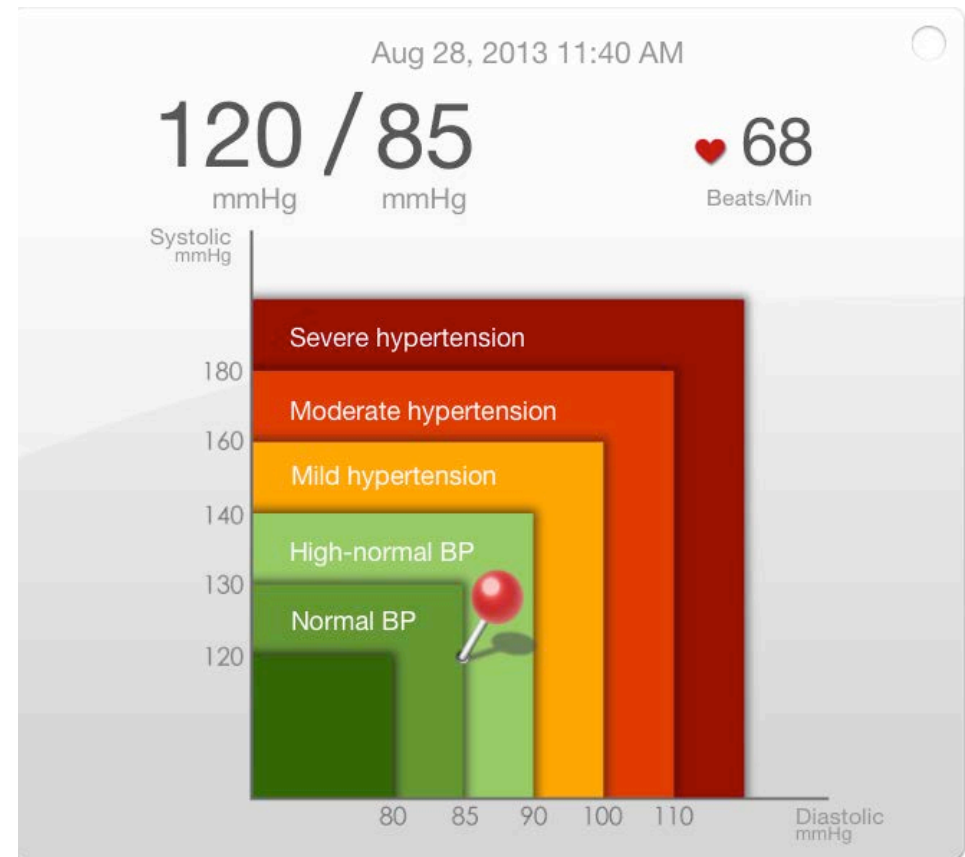
**Siva Raj**

Founder & CEO, Revvo

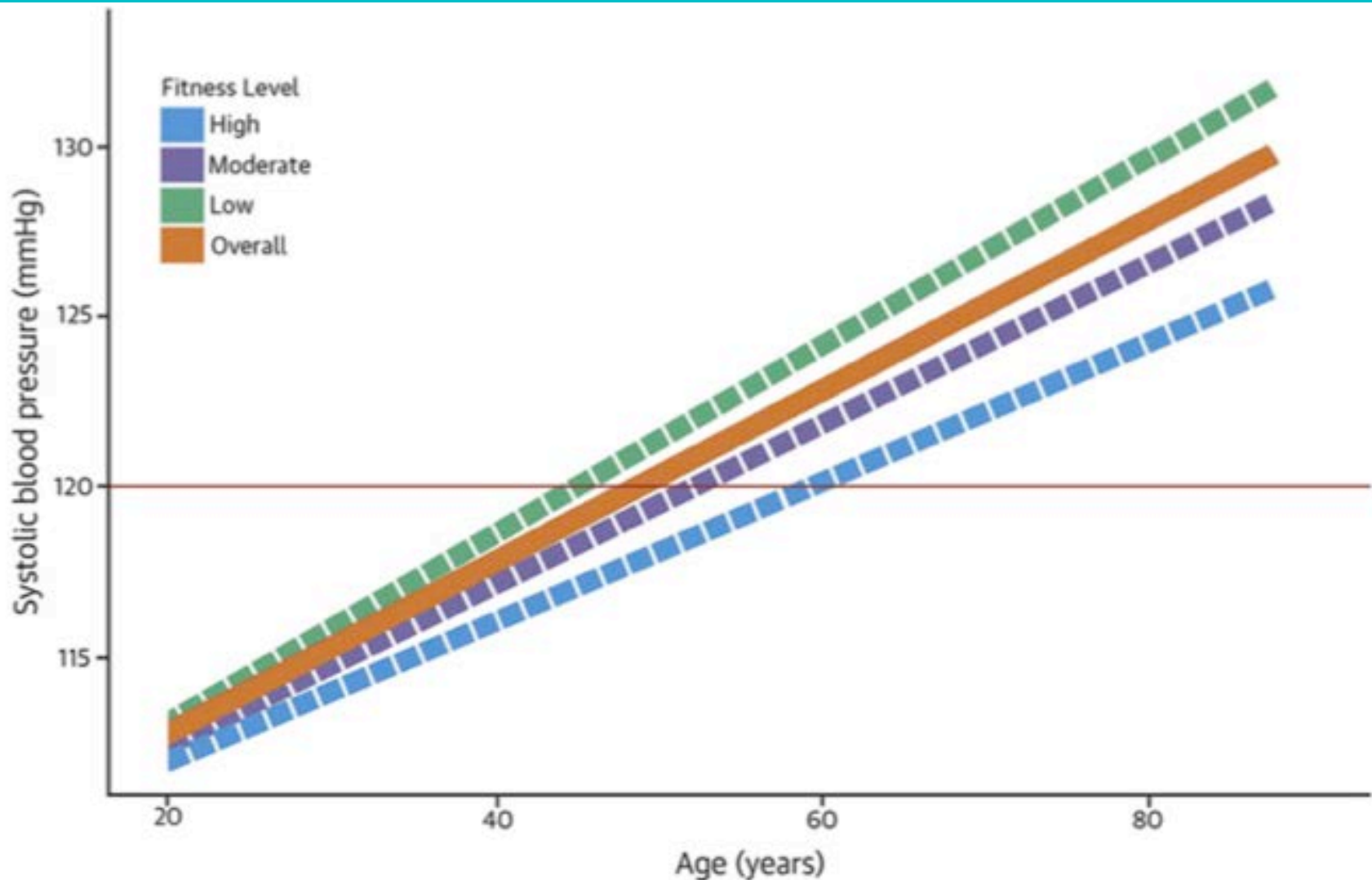
siva@revvo.co, @jaravis

Blog: <http://hack.fitness>

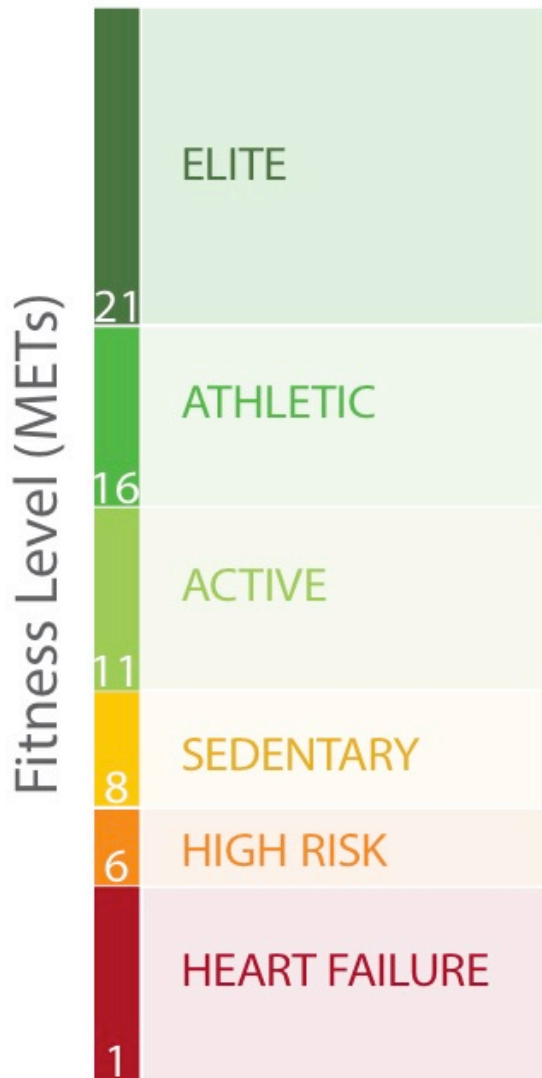
# Turning 40 Has Consequences



# Fitness & BP Are Correlated



# Fitness = Capacity for Physical Effort



If your fitness level is high then you can cope with challenging physical tasks like running a marathon

If your fitness level is low, then everyday tasks like climbing a flight of stairs will be challenging

**Units of Measure**  
VO2Max  
METs

$$METs = 3.5 * VO2Max$$

# How does Fitness Relate to BP ?

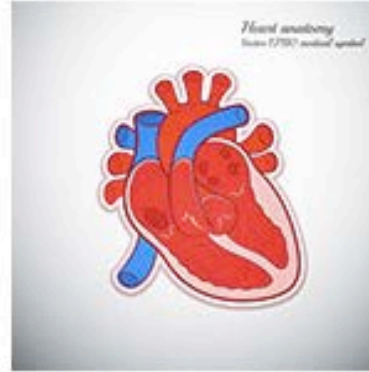
Physical  
Fitness



VO<sub>2</sub>Max

=

Cardiac  
Output



SV \* HR

\*

Muscle Oxygen  
Uptake



Ca-Cv

*Higher Blood Pressure = Increased Vascular Resistance  
= Lower Stroke Volume = Lower Fitness*

# How to Measure Fitness

## Direct Method



↓  
VO2Max

## Indirect Method



Energy Exp.  
(watts)



VO2



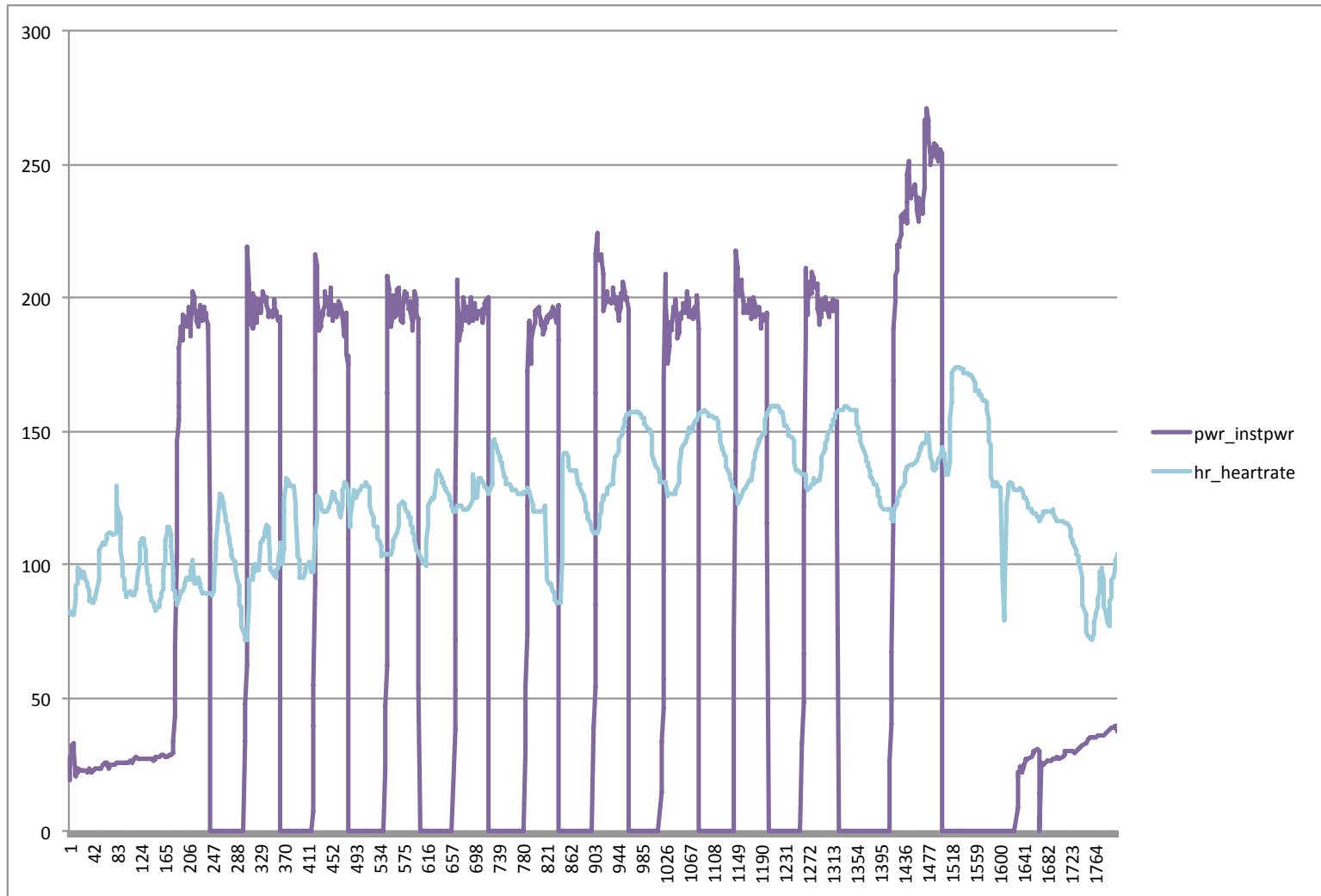
HR Monitor

HR

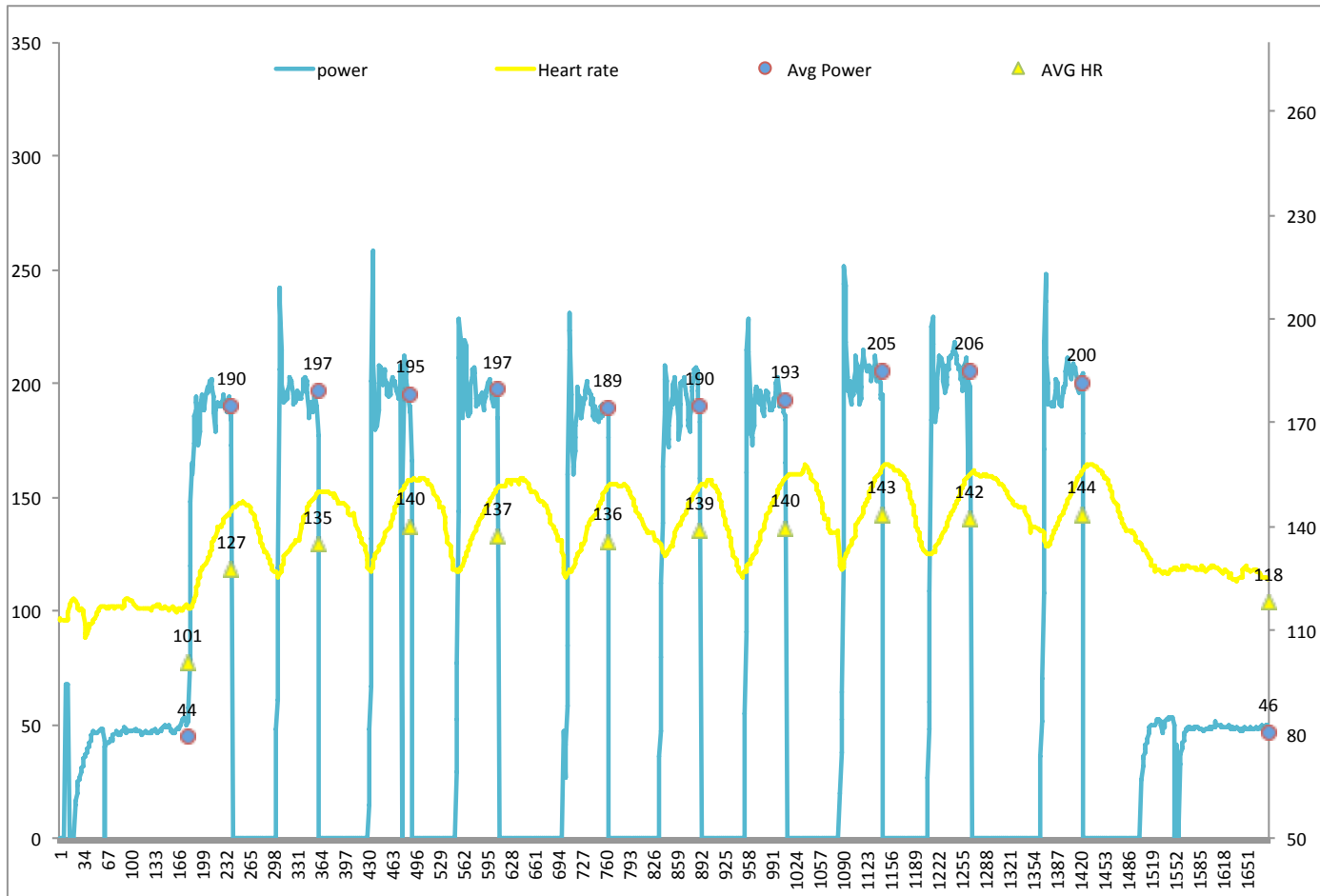


VO2Max

# Wrist Based HR Monitors Fail

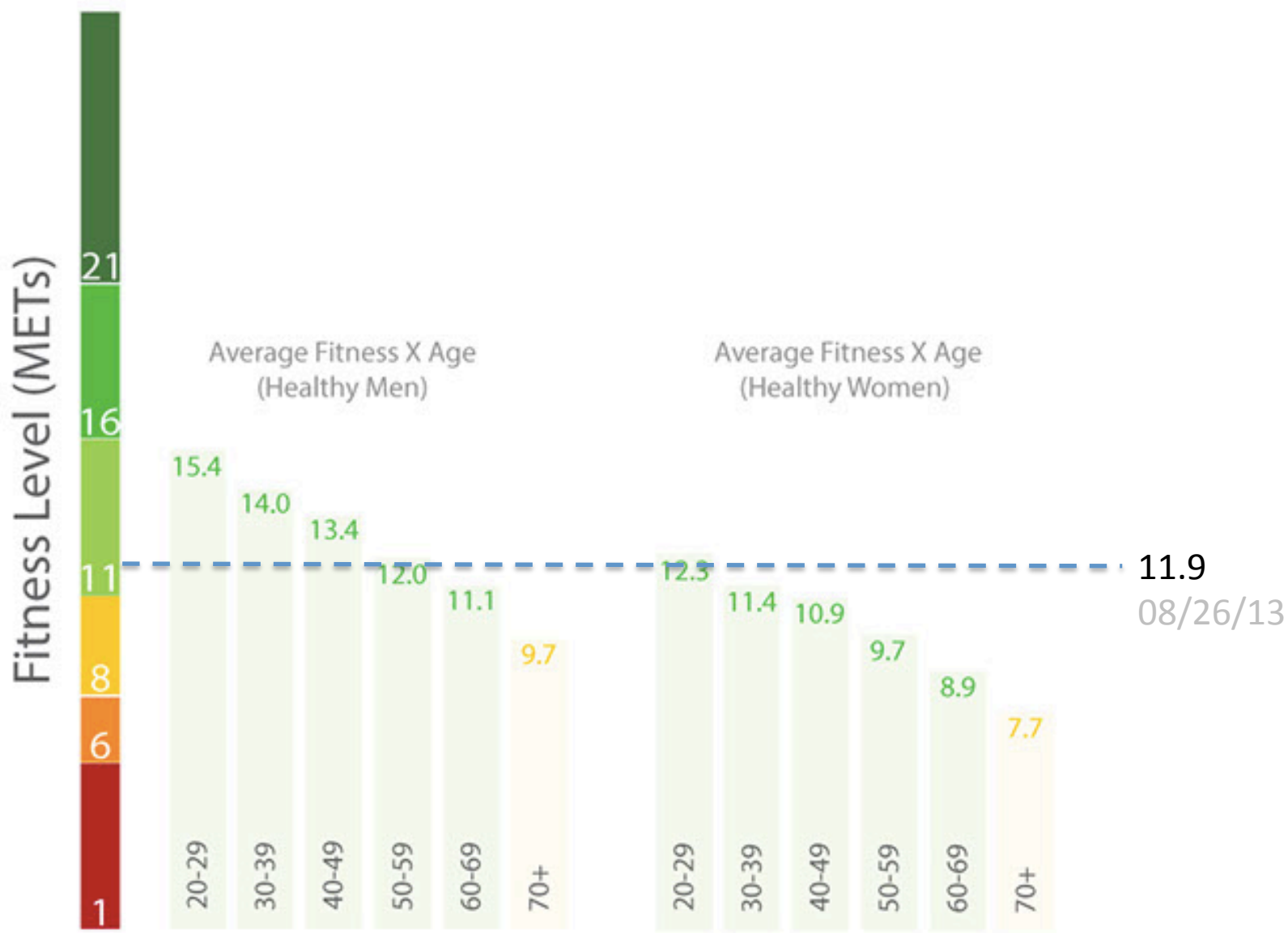


# Switched to Chest HR Strap

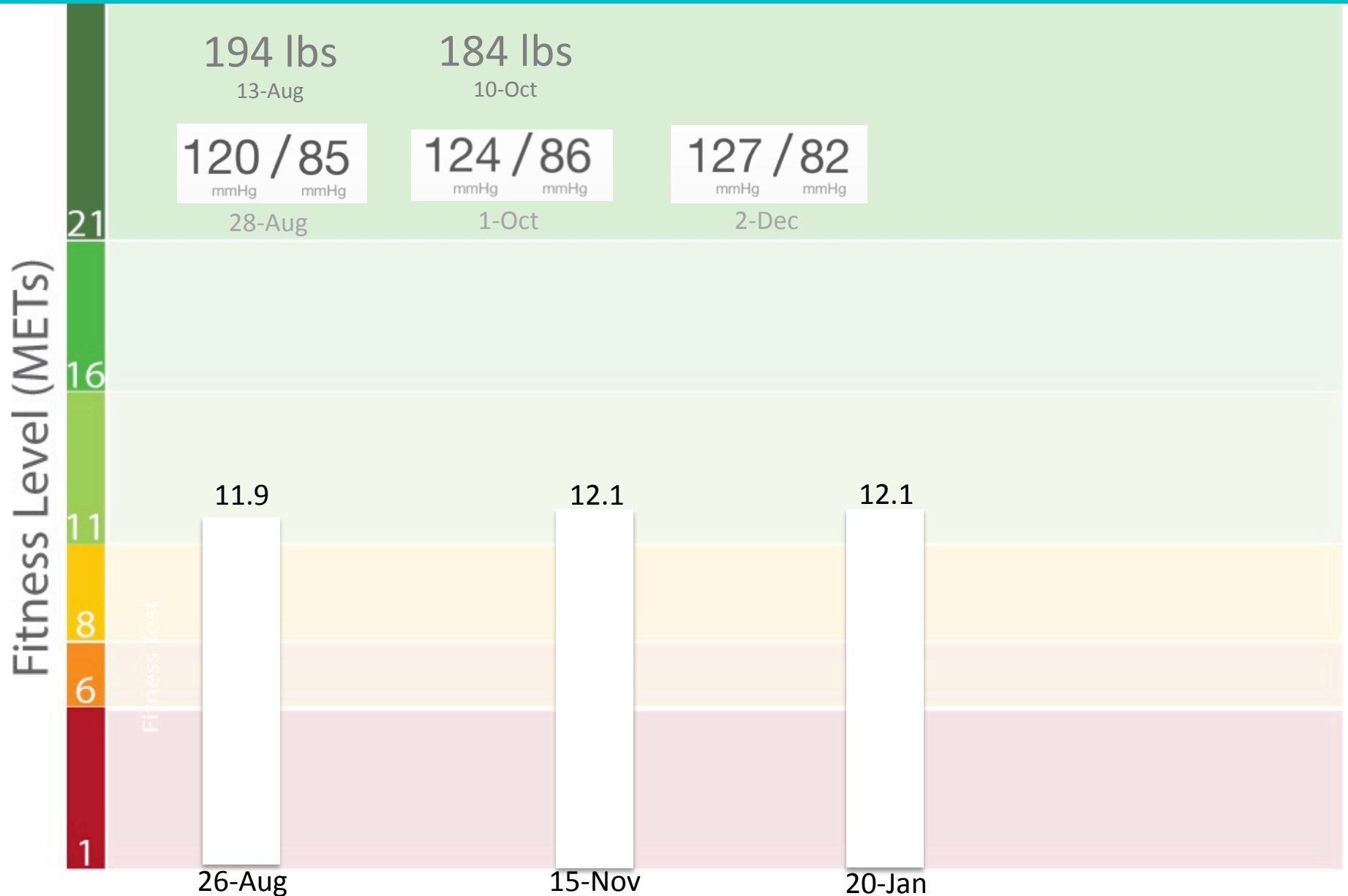




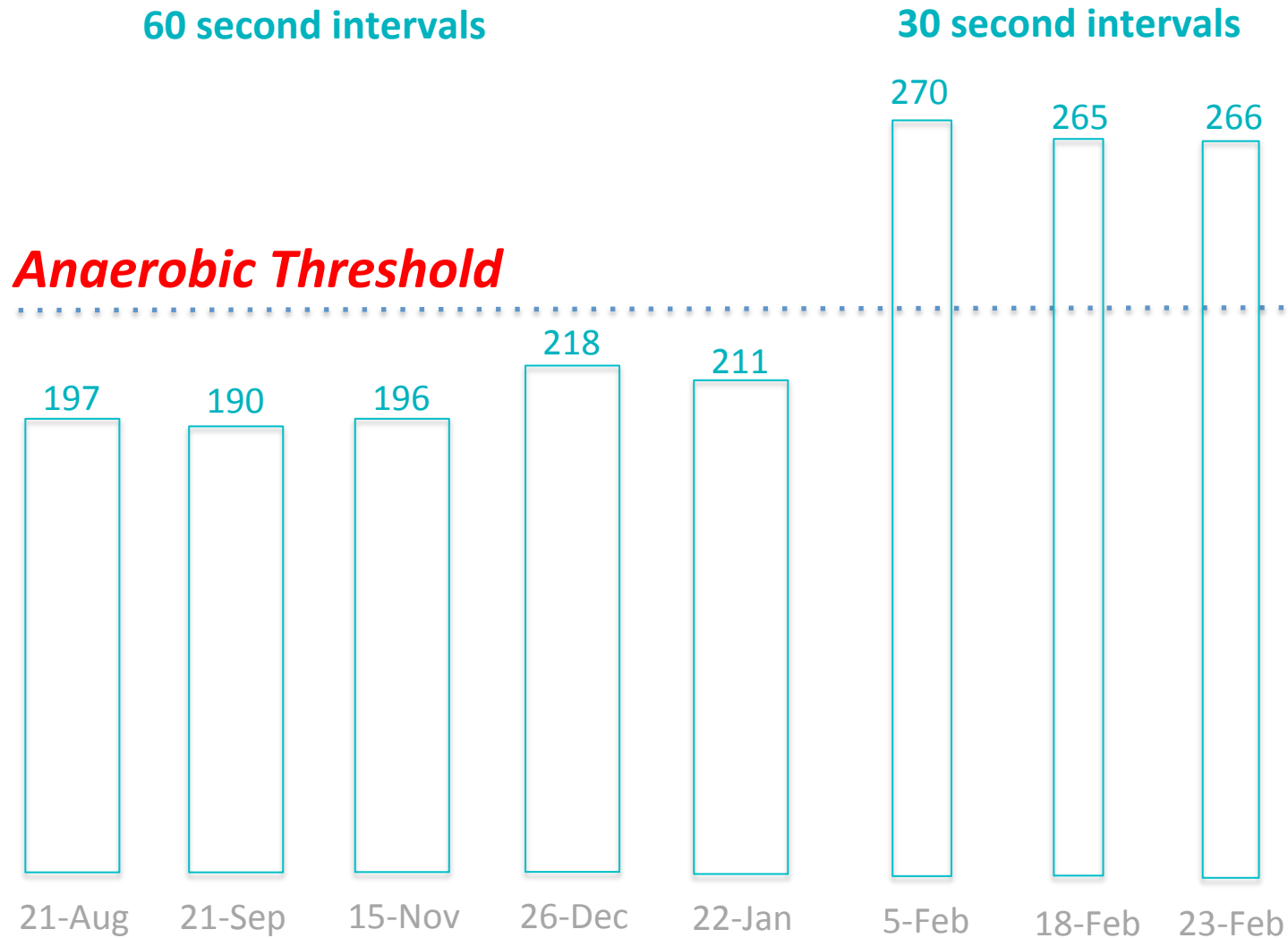
# My First Fitness Measurement



# Interval Training : 30 Mins, 3x a Week

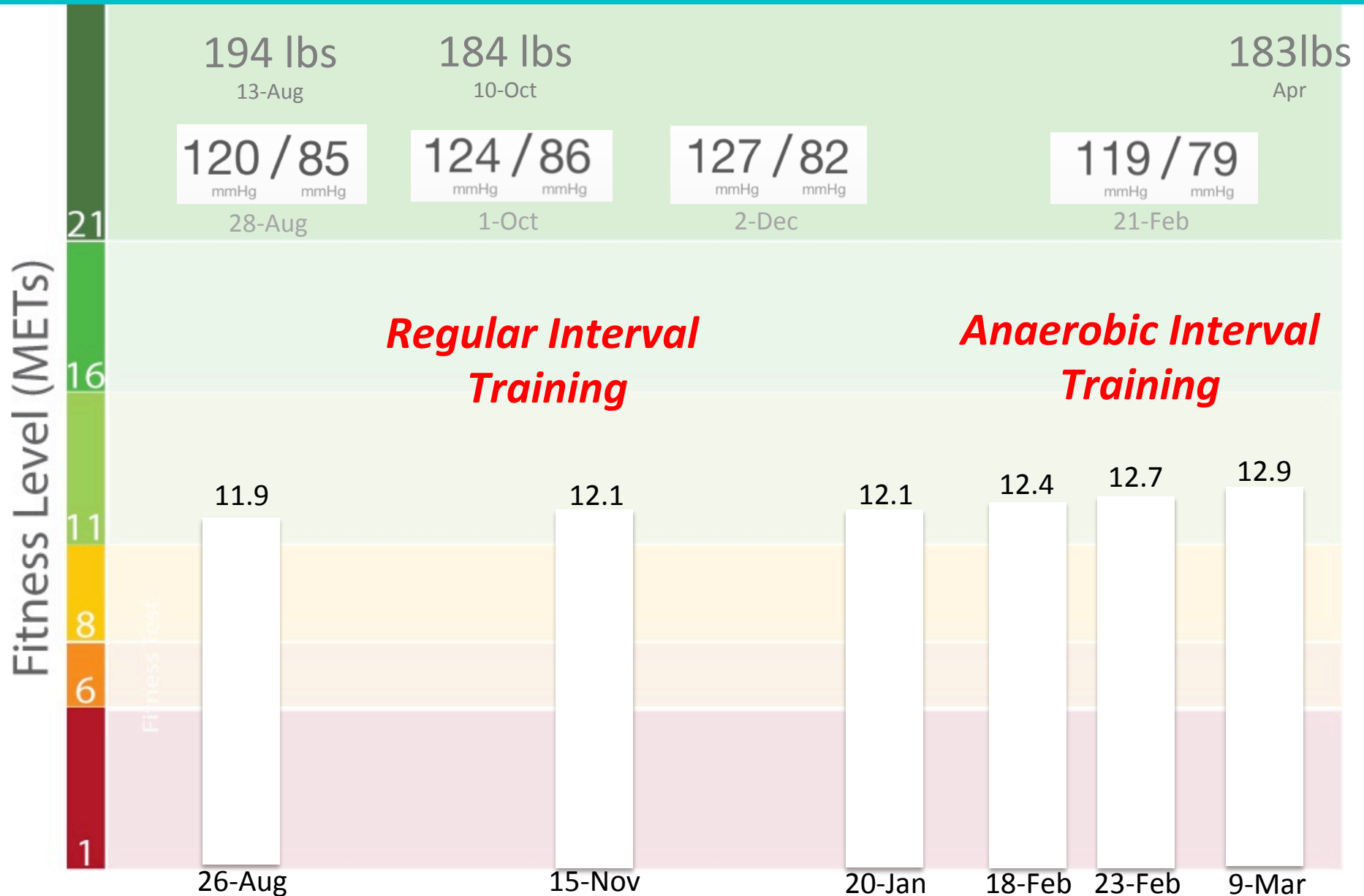


# Switched to Anaerobic Intervals



Average Power (Watts)

# And it Worked !



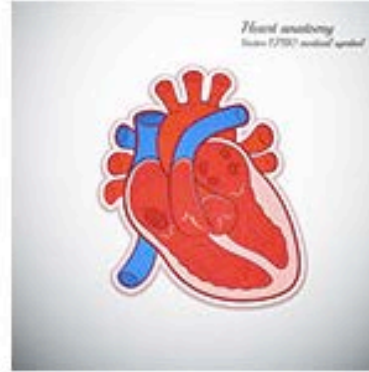
# What is the Anaerobic Threshold ?

Physical  
Fitness



VO<sub>2</sub>Max

Cardiac  
Output



SV \* HR

Muscle Oxygen  
Uptake

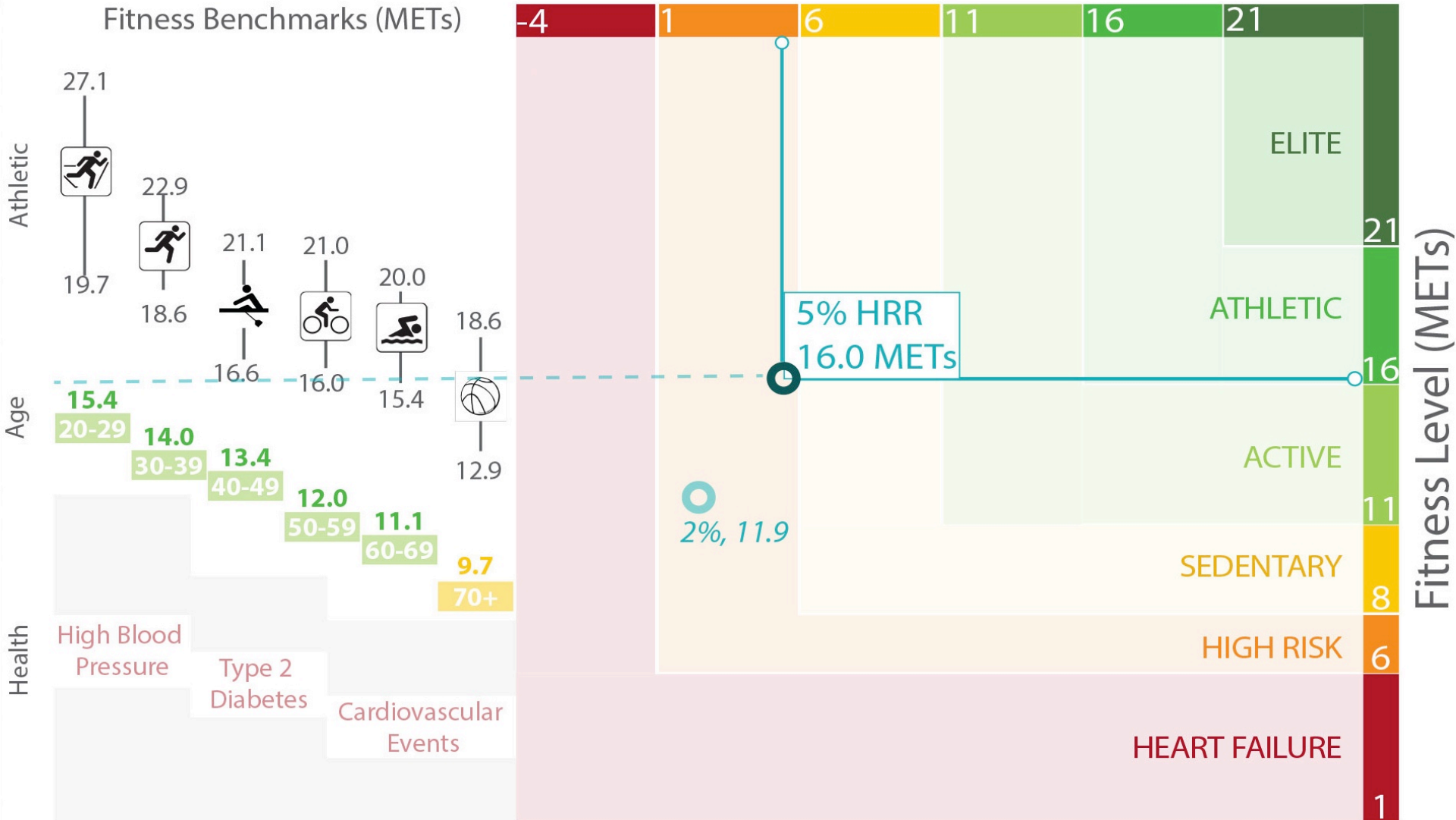


Ca-Cv

*Point at which muscles stop being able to efficiently utilize oxygen and switch to using stored glycogen*

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# Heart Rate Recovery (%)



# The Hacker's Guide to Fitness

1. Accurate data – particularly heart rate
2. Measure fitness repeatedly
3. Train above the anaerobic threshold

The technology & learning lead to the creation of Revvo, a smart exercise bike

*See us at office hours, expo or sign-up online for a FREE fitness test*

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