

RESEARCH ARTICLE

Using GH-Method: Math-Physical Medicine to Analyze Metabolism Index and General Health Status Unit

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Introduction

Gerald has spent 8.5 years and 23,000 hours to research his own chronic disease conditions. By using GH-Method: math-physical medicine approach, he developed a metabolism model with 10 defined Metabolism Index (MI) values and have a General Health Status Unit (GHSU) to improve his health conditions.

Method

Gerald has used mathematics, physics, engineering modeling, and computer science tools, including big data analytics and artificial intelligence to conduct his research. He developed a mathematical metabolism model and four prediction tools for Weight, Fasting Plasma Glucose (FPG), Postprandial Plasma Glucose (PPG) and A1C [1]. This metabolism model includes 10 categories: weight, glucose, blood pressure, lipids, food, water, exercise, sleep, stress, and routine life pattern, with ~500 elements. Furthermore, he collected and processed ~1.5 million data of his health and lifestyle since 2012 [2].

Results

Here is his health condition data comparison between 2010 and 2017/2018:

1. Weight: 205 / 172 / 171 lbs.
2. Waistline: 44 / 34 / 33 in.
3. PPG: 350 / 116 / 117 mg/dL
4. FPG: 185 / 119 / 114 mg/dL
5. Daily glucose: 280 / 117 / 116 mg/dL
6. Lab A1C: 10.0% / 6.5% / 6.7 %
7. Daily Math A1C: 10.0 / 6.84 / 6.78 %
8. ACR: 116 / 12 / 12 mg/mmol
9. Triglycerides: 1161 / 69 / 113 mg/dL.

Gerald defined two new terms known as the Metabolism

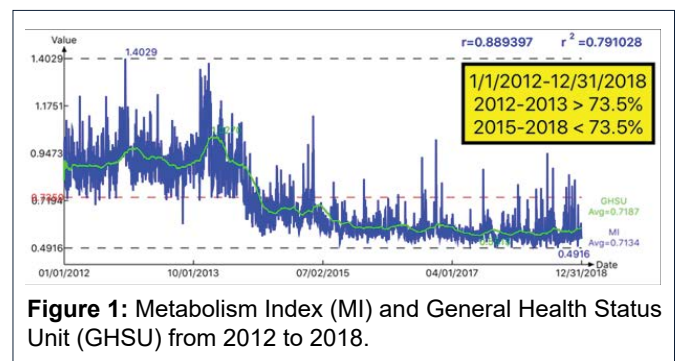


Figure 1: Metabolism Index (MI) and General Health Status Unit (GHSU) from 2012 to 2018.

Index (MI) and General Health Status Unit (GHSU) [3,4]. The “health state” is expressed as the “break-even” line which is 73.5%; the percentage above the line is regarded “unhealthy” and the percentage below is “healthy”. Figure 1 shows that he was very unhealthy (80%-110%) before 2013. The curve went through a sharp decline in 2014 due to his research and understanding of “metabolism”. After 2015, he was “healthy” (60%-70%). As of 12/31/2017 and 12/31/2018, his daily MI was 57.4% and 53.6% respectively and the GHSU was 55.7% and 58.6% respectively.

Conclusion

Gerald’s entire previous lab tests results are confirmed as shown in the Figure 1 showing his chronic disease conditions is well under control.

References

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