

## **Model for Homeostasis “Brief” on Cardiomyopathy**

*This document has been prepared using terminology intended for ready understanding of business people. It must be noted that interpretation of this information will require an understanding of the Model for Homeostasis outlined on the web site of The Center for Modeling Optimal Outcomes®, LLC ([www.TheCenterNJ.com](http://www.TheCenterNJ.com)).*

*There are numerous potential reasons for cardiovascular disease. The following information provides a biologically verifiable process that is a causal path for the failure of the myocardium (heart muscle).*

Zinc decreases as aldosterone increases.<sup>1</sup>

Cortisol increases copper levels (time dependent).<sup>2</sup>

High copper lowers zinc.<sup>3</sup>

Cortisol and aldosterone have been proven to increase sodium in countless studies.

Increased sodium has been proven to decrease potassium.<sup>4</sup>

Cortisol depletes zinc and low zinc decreases muscle strength.<sup>5</sup>

Our Model for Homeostasis links low zinc with spasms to smooth muscle tissue.<sup>6</sup>

Low potassium is linked to spasms in skeletal muscle in countless studies.

The heart is comprised of striated muscle. Skeletal muscle is a form of striated muscle.

Low zinc and low potassium will cause spasms to both smooth and skeletal muscles.

**So what?** Distress (cortisol and aldosterone) deplete zinc and potassium. Tacit knowledge exists which indicates that stress kills but, until now, an explicit model has not existed to provide the verifiable biology to explain the dynamics involved.

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<sup>1</sup> <http://www.ncbi.nlm.nih.gov/pubmed/2368474>

<sup>2</sup> <http://jeb.biologists.org/cgi/reprint/206/19/3309>

<sup>3</sup> <http://www.app.com/article/20090918/NEWS/90918092/1/FrontTabs01/Overuse+of+denture+cream+with+zinc+sparks+lawsuits>

<sup>4</sup> <http://www.sciencedaily.com/releases/2009/01/090126173839.htm>

<sup>5</sup> [http://www.snac.com/res\\_zma\\_1.htm](http://www.snac.com/res_zma_1.htm)

<sup>6</sup> Explicit documentation is available

This document is not intended to provide an explanation for the causal paths of all of the many iterations of heart disease. It is intended solely to provide the foundation for the development of a predictive point-of-care test kit for the one form of heart disease that can result in sudden cardiac death.

The Center's Model provides numerous causal paths for other illnesses and disease entities. We encourage the reader to contact us to discuss the aforementioned scenario or any of the other "briefs" we have prepared as examples. Interested parties are also encouraged to contact us to discuss specific modeling of causal paths relative to other iterations of heart disease.

For more information regarding the licensure of the predictive point of care test kit for Cardiomyopathy, contact Matthew Gyulay at [mgyulay@TheCenterNJ.com](mailto:mgyulay@TheCenterNJ.com).

*Note: For the ease of explanation, only single references from the many identified as a result of The Center's the investigative process were selected to be included in this document*