

Stuttering

Cusack PTE*

Independent Researcher, BScE, DULE, 23 Park Ave, Saint john, NB E2J 1R2, Canada

*Corresponding author:

Paul T E Cusack,
Independent Researcher,
BScE, DULE, 23 Park Ave.,
Saint John, NB E2J 1R2, Canada,
E-mail: St-michael@hotmail.com

Received: 20 Oct 2020

Accepted: 02 Nov 2020

Published: 09 Nov 2020

Copyright:

©2020 Cusack PTE. This is an open access article distributed under the terms of the Creative Commons Attribution License, which permits unrestricted use, distribution, and build upon your work non-commercially.

Citation:

Cusack PTE, Stuttering. Annals of Clinical and Medical Case Reports. 2020; 5(2): 1-1.

Keywords:

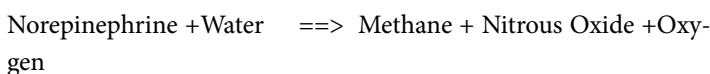
Stuttering; Adrenaline; AT Math

1. Abstract

This paper provides some simple calculations from AT Math and Physics on how stuttering may occur. We see that adrenaline affects the frequency of the human mind resulting in a nerve signal velocity that is too slow for the tongue muscle to respond, thus no clear speech.

2. Introduction

In this paper, we consider the mathematics and physics behind stuttering. We have observed that stutters do worse under stress, yet, when not under stress, their speech is lucid. I hypothesize that it is adrenaline (norepinephrine) that leads to a worsening circumstance for stuttering to occur. We begin with the chemistry of adrenaline. Familiarity of AT Math is assumed.



$$12.0107 \times 9 = 108.0963$$

$$14.0067 \times 1 = 14.067$$

$$15.999 \times 10 = 159.98$$

$$1.0008 \times 36 = 36.288$$

$$\Sigma 318.43 \times 6.023 = 1917.9 \text{ g}$$

$$318.43 \sim \text{frequency of the human mind} = 1/\pi$$

$$\text{Freq} = 1/T = 1/((1/t))$$

$$E = 1/t = 3.141 \sim \pi$$

$$TE = M [0.15915]$$

$$3.141 = M(0.15915)$$

$$M = -1.9736$$

$$M = \ln t$$

$$t = \exp(1.9736)$$

$$= 1.0199 \sim 102$$

$$t = KE = 1/2 Mv^2$$

$$1.02 = 1/2 (1.9736) v^2$$

$$v^2 = 1.03357$$

$$v = 10.166 < 11.027$$

$$\Delta v = 0.861$$

It takes 1/5 sec to utter a word.

$$v = d/t$$

$$0.861 = d/(1/5)$$

$$d = 1.722$$

$$1.722/\sqrt{3} = 0.994 = \rho_{\text{blood}}$$

$$t = KE = 1/2 \rho v^2$$

$$s = t = d$$

$$1.722 = 1/2 (0.994) (v^2)$$

$$v = 1.861$$

$$\text{GMP E} = -1.248 \sim -1.25$$

The nerve signal is too slow for the tongue to respond with flight or fight adrenaline in the speaker's system.

3. Conclusion

We see that perhaps it is adrenaline that worsens stutters speech.

References

1. Cusack PTE. Stuttering Mechanism. J of Psychiatry and Neuro Science. SAR. 2020.