

**BJMHR**

British Journal of Medical and Health Research

Journal home page: www.bjmhr.com

I Must Think to Breathe: A Personal Experience

Otto Appenzeller MD (Sydney), PhD (London)*New Mexico Health Enhancement and Marathon Clinics Research Foundation*

ABSTRACT

A 97-year old man is largely healthy, but his respiration is altered. He breathes normally and effortlessly while sleeping or sitting. But if he stands, walks, or engages in other activities that require him to concentrate on coordination and balance, breathing becomes a conscious effort. He stops breathing and grows faint if he does not remember to breathe. This condition compounds other challenges of aging, but he is determined not to allow it to limit his activities. He speculates that his condition results from age related deterioration in the autonomic nervous system, most likely the breathing centers in the brainstem.

Keywords: Respiration, aging, brainstem, autonomic nervous system

*Corresponding Author Email: tappenzeller@gmail.com

Received 12 October 2025, Accepted 26 October 2025

Please cite this article as: Appenzeller O *et al.*, I Must Think to Breathe: A Personal Experience. British Journal of Medical and Health Research 2025.

INTRODUCTION

It is necessary to breathe to get sufficient oxygen to the tissue for proper metabolism. Most people breathe without conscious effort, thanks to the autonomic nervous system, which reliably activates the respiratory muscles. However, in this 97 years old this activity is impaired. I breathe normally and effortlessly when I sleep or sit. But when I stand and walk, I must THINK to take a deep and satisfying breath. If I forget to breathe, I am liable to faint and injure myself.¹

When I stand, I rely on support from my walker or from furniture such as tables or counters and must remind myself to take a deep breath. Otherwise, I start swaying and might fall. So, only while sitting or lying do I feel safe to do other activities such as writing or surveying the internet.

Standing is especially challenging because I have to simultaneously maintain my balance and attend to my breathing. The simple act of standing upright requires automatic adjustments in body position. When conscious breathing is layered onto this task it can feel overwhelming.

Sustaining my breathing can be difficult even when I am not on my feet. I have recently taken to riding an electric tricycle. If I fail to consciously force myself to take some deep breaths while on the seat I fear I may fall off the machine, risking injury and ending a burden to my family and friends. Even while trying to put on my shoes in the sitting position in the morning with a special hook that I fashioned, I am likely to fall to one side if I fail to pay attention to my breathing. And yet when sitting quietly, sleeping, or conversing I have no problems whatsoever.

What could explain my symptoms? I have a pacemaker and an aortic valve replacement, but my cardiovascular system is otherwise healthy.

According to the published literature my breathing challenges are an anxiety problem.¹ Yet there may be a more organic explanation. Both cycling and bending to put on my shoes require that I simultaneously maintain my balance and sustain my breathing. This observation suggests that because of age-related decline in autonomic function, certain activities that were once automatic and taken for granted require more deliberate effort, especially those that demand both balance and respiratory control.

My experience when exercising on a rowing machine may be related. At times when I am exercising vigorously, I get painful spasms in the exercising muscles. These spasms force me to stop exercising. It is possible that, as a natural consequence of age, the breathing centers located in the brain stem are no longer sensitive enough to carbon dioxide to drive the respiration appropriate for the exercise performed.

The brain stem connects the brain with the spinal cord and is located at the base of the brain; it consists of three main parts; midbrain, pons (bridge), and medulla oblongata, the elongated part at the base. The medulla oblongata is important for regulating sleep, breathing and promoting balance. Damage to this part of the brain can cause serious impairment of function and even death. But perhaps smaller, age-related changes there can explain the related challenges of breathing and balance that I experience.

I face other consequences of age. I am always cold, even when I sit in the heated kitchen while wearing a down vest. I assume this is the result of the metabolism shutting down after nearly 98 years.

How should I cope with these complicated and complex aspects of aging? My electric tricycle has freed me to explore the neighborhood and see the open sky, and I want to continue riding it. Rather than stop out of fear, I will try to ride it as often as possible, taking deep, satisfying breaths, and hope my symptoms improve. If they do not, I will persist just the same. Luckily my brain function seems unimpaired and my determination is strong.

REFERENCE

1. Myerholtz L. Take a Deep Breath. Fam Med. 2023 Apr;55(4):284-285. DOI: 10.22454/FamMed.2023.731271

BJMHR is

- **Peer reviewed**
- **Monthly**
- **Rapid publication**
- **Submit your next manuscript at**

editor@bjmhr.com

