

Tailor-Made Dual-Task Rehabilitation Training Medical Device for Body Trunk Balance Using Virtual Reality, Three-Dimensional Tracking, and Artificial Intelligence Technologies

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Self-introduction



WELL AGING
SOCIETY
SUMMIT

Masahiko Hara, MD, PhD
37 years old
Cardiovascular medicine (stroke)
Clinical Study & Biostatistics
Selected as
Five Most Promising Cardiologists
by AHA/ACC in 3 years



Academic activity alone is insufficient...
if you really want to introduce a new
idea into the clinical setting...

Establish mediVR, Inc. in 2016

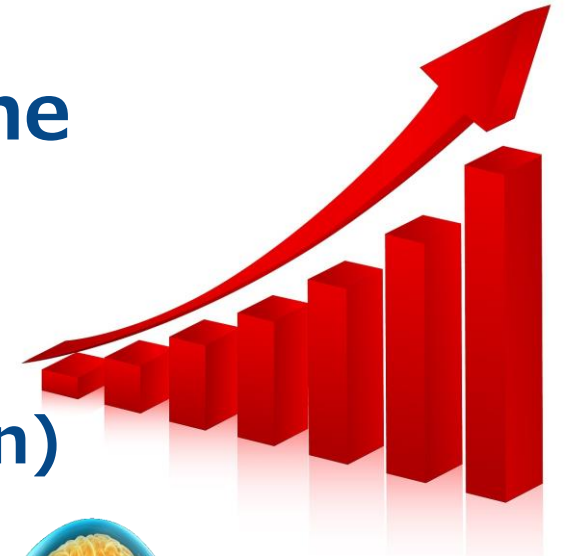


The number of patients with **“walking disabilities”** is increasing worldwide in the super-aging society due to

- (1) Aging (frail or sarcopenia)
- (2) Cerebrovascular diseases (stroke)
- (3) Neurodegenerative conditions (Parkinson)



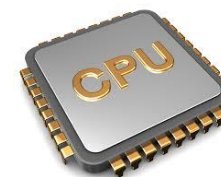
They require **“rehabilitation”** because the ability to walk is the most important basic functional activity of daily life.



How can patients with walking disabilities regain this critical function ?

Walking consists of 3 components

- (1) Lower extremity muscle strength
- (2) **Body trunk balancing ability**
- (3) **Dual-task processing ability**

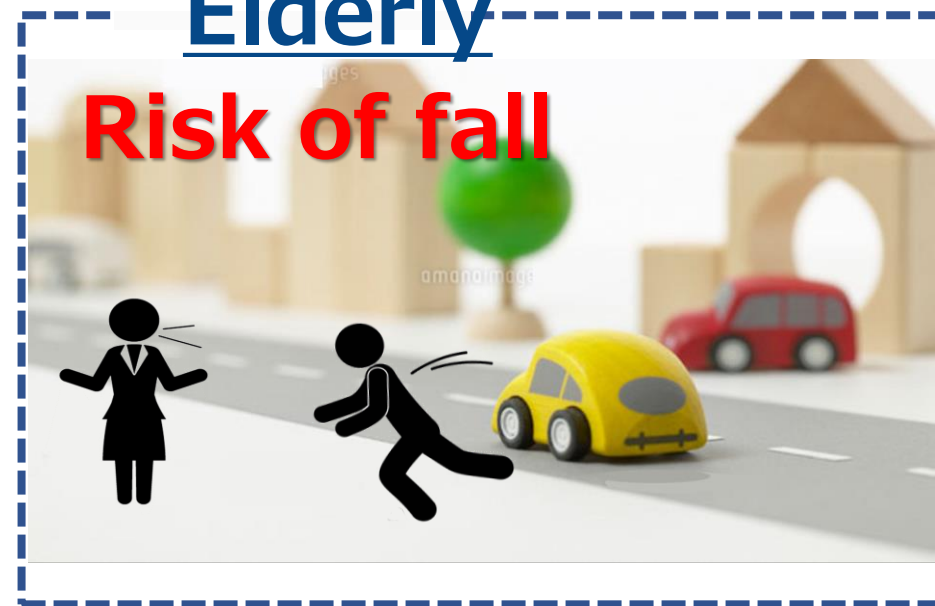


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Elderly

Risk of fall



Mismatch between brain memory and physical activity

Regain = Fill in the gap (like riding a bicycle)

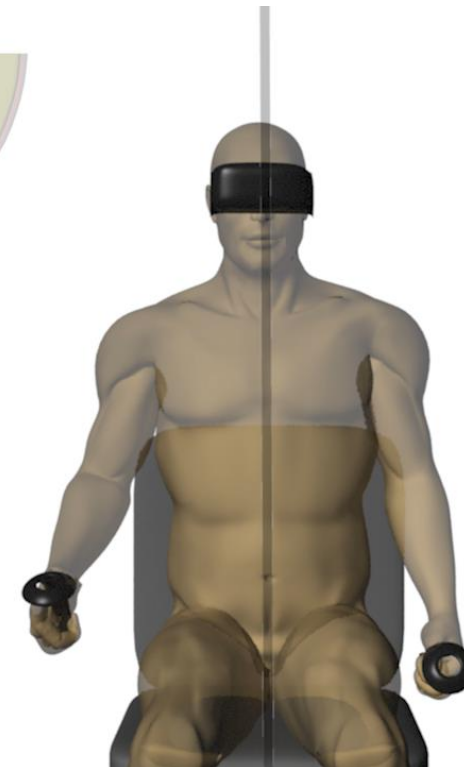
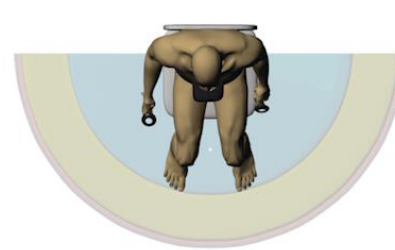
Walk on a stopped escalator

Stops walking when talking

Medical device to provide patients with a dual-task rehabilitation program for body trunk balance using **"Virtual Reality"**, **"3-Dimensional Tracking"**, and **"Artificial Intelligence"** technologies.

Control Six Parameters

- (1) Angle
- (2) Distance
- (3) Falling speed
- (4) task interval
- (5) Object/controller size
- (6) Task height



**Overwrite
existing memories**

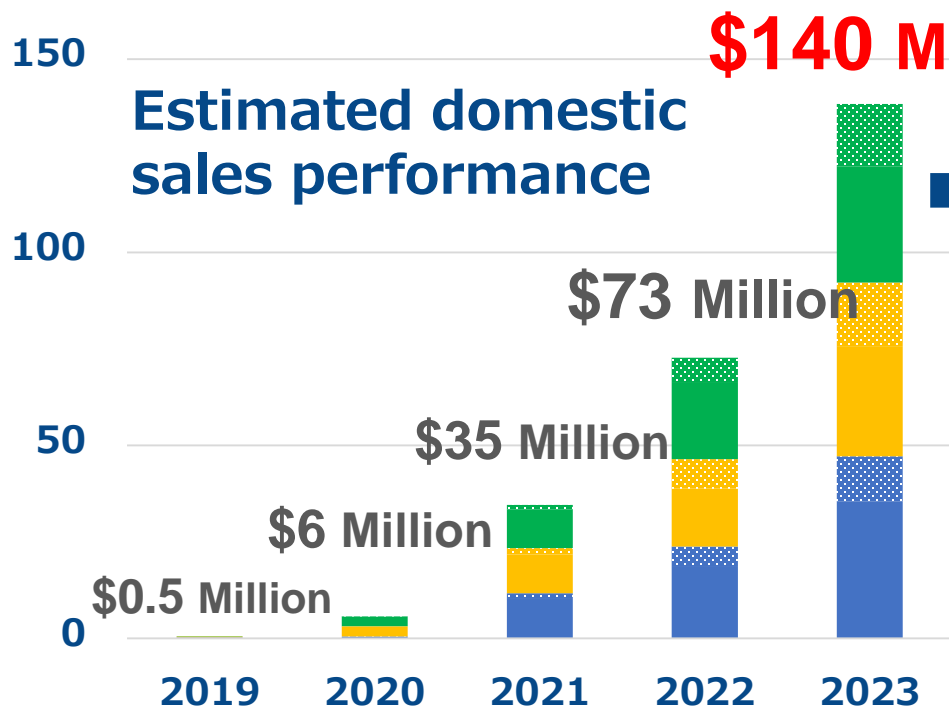




	Hospitals	Nursing homes	Individual Pts
Total No	5,500 (Rehab)	28,000	Stroke 1 million Pts
1st/subsequent	\$45,000/\$15,000	\$15,000/\$8,000	\$10,000/\$5,000
5 years later	1650 (≒30%)	2,800 (≒10%)	5,000 (≒0.05%)

■ Hp 1st ■ Hp Sub ■ Nurse 1st ■ Nurse Sub ■ Pts 1st ■ Pts Sub

Gross Market Profit Rate 85%
Break-Even Point \$300,000



➔ Sales figures can increase 10-fold when we expand into the worldwide market

We ultimately aim to establish Worldwide Market Monopoly

