

System and Method for Risk Detection and Intervention to Prevent Sudden Death

Intellectual Property

Patent Pending

Lead Inventor

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Desired Partnership(s)

Licensee
Medical Grade Manufacturer

Categorized As

Ambient Intelligence
Artificial Intelligence
Computer Vision
Medical Devices
Wearable Technology

Unmet Need

Asphyxiation is one of the causes of sudden and unexpected deaths. Infants, people living with epilepsy, and populations with diseases or disorders that reduce motor functions are all at risk for death by suffocation. Individuals may roll their body and/or move their head in specific positions and inadvertently block their nose and mouth. At this critical point in time, timely, physical intervention is paramount to reduce the risk of suffocation. Because these populations are at risk, monitoring is necessary to provide time-sensitive, death-preventing interventions during a suffocation event. However, constant human monitoring is expensive, impractical, and unreliable, specifically if the monitor is not aware of the individual's distress at the critical point in time. For adults living with a disease or disorder, human monitoring may also reduce their feeling of independence.

Solution/Technology

This wearable system comprises of devices for both environmental and biometric data collection, monitoring an individual's risk for sudden death caused by suffocation and acting as an intervention delivery method to initiate communication to a caregiver and/or perform an immediate intervention to stimulate or reposition the individual.

Advantages

- Ability to notify a designated caregiver during critical point in time reduces anxiety for caregiver and user
- Both biometric and environmental data collection expands the variety of identifiable death risks
- Immediate intervention and repositioning devices increase user sense of independence
- Ergonomic design of wearable supports natural sleep without hindrance of comfort