Smart Technology and Fall Detection for Older Australians

Developing wearable technology for detecting falls in older people in order to reduce the risk of lying undiscovered for a long period. This wearable technology can be adapted into smart phones and smart watches, and forms part of a holistic approach to aged care.

Competitive advantage

- Wearable fall detector with 95% accuracy
- Lowest false alarm rate reported in literature
- Lightweight, comfortable and low cost
- Optimised battery life – 4 years, no charging, no battery replacement

Impact

- Approximately one-third of community dwelling residents aged over 65 experience at least one fall a year, with the chance of falling increasing with age. About half of all elderly people who fall without being seriously injured are unable to get up and this leads to further limitation of functional activities and physical outcomes such as muscle damage, dehydration, hypothermia, pneumonia and increased mortality.

Successful outcomes

- Tested in the lab and in real life, with healthy volunteers.

Capabilities and facilities

- 45 prototypes ready for trials with older Australians
- The capability to adapt the algorithms for use with mobile phone technology
- Working to integrate the falls detector into a "smart-home" designed for older Australians

Our partners

- Vitalcare Pty Ltd

More Information

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