



The safety of the elderly at home

Background and Overview: the problem

Home safety is crucial for elderly living alone. While many elderly individuals desire independence, their homes can hide risks such as falls or fires. A secure home provides them peace of mind and enhances their emotional well-being. Investing in senior safety is a sign of respect and contributes to an independent and happy life.



The safety of elderly at home is an important aspect, especially considering that, in Italy, there are numerous single-person households at a certain age. According to Istat data, there are over 7 million individuals aged 75 and above in our country, mostly women who, after the age of 75, live alone in nearly half of the cases.





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It's important to intervene in the right way with a product that can solve this problem because:

Falls can cause:

- bone fractures;
- Bruises, tears or sprains;
- Deep cuts;
- Organic damage;
- Head trauma.

If you fall while alone and remain on the floor for a long time, you may experience problems such as:

- Dehydration;
- Low body temperature (hypothermia);
- Pneumonia, which is an infection of the lungs.

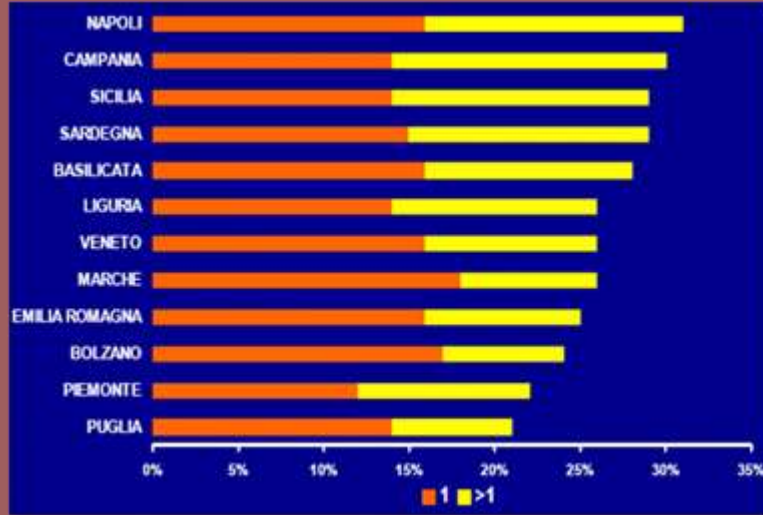
Every year between three and four million domestic accidents occur in Italy which, as is known, mainly affect the elderly, with significant consequences in terms of disability, hospitalizations and mortality. Among domestic accidents, falls represent the most important item, to the point that it is estimated that a third of those over sixty are victims, with very high human, social and material costs.





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In Italy, in 2002 it was estimated that 28.6% (26-31%) of people aged 75 and over fall within 12 months. Of these, 43% fall more than once. 60% of falls happen at home.

Reasons:

- Accidental - environmentally related;
- Gait disturbance;
- Decreased muscle strength;
- Dizziness;
- Vertigo;
- Collapse;
- Confusion.

Place:

- The kitchen (25%);
- The bedroom (22%);
- Internal and external stairs (20%);
- The bathroom (13%).





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Personas



Target: elderly
people aged +75



Name: Marco

Age: 80

Location: Naples

Bio

Marco is an 80-year-old widower who lives in a single-story house in a quiet suburban neighborhood. He retired from a career as a teacher 10 years ago and has been living alone since the passing of his wife. He has two grown children who live in different states and visit occasionally.

Habits

Marco is a passionate home cook who particularly enjoys baking cakes. He spends his days reading historical and current affairs articles on the internet. Marco is quite good with technology.

Needs:

His need is to maintain his independence in terms of mobility and to feel safer within the walls of his home.

Desires:

Marco wishes that he can cook without feeling scared of falling.

Fears:

Despite his passion and culinary skills, Marco can't help but fear that one day, while engrossed in preparing a culinary delight, he might stumble, slip, or lose his balance. This fear continually drives him to seek ways to enhance safety in his kitchen, which is the heart of his home.



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Personas

Target: elderly
people aged +75



Name: Maria

Age: 76

Location: Naples

Bio

Maria is an elderly woman who lives alone in a second-floor apartment in a building without an elevator. She has lived in the same home for over 40 years and is very attached to her neighborhood.

Maria is a widow and has three adult children who live in other cities but visit her occasionally.

Habits

Maria is active and independent, but her legs have grown weaker in recent years.

She enjoys cooking her favorite meals but is cautious not to get hurt in the kitchen.

She doesn't use technology much, and her cell phone is a simple smartphone given to her by her son. She's afraid of falling at home, especially in the shower or while going up and down the stairs.

Needs:

She needs to feel safe at home, especially when she's alone.
She would like assistance to improve the safety of her apartment, especially in the bathroom and on the stairs.

Desires:

Maria wishes that she feel safe in her own house again.

Fears:

Maria has a strong fear of falling at home, especially when she's alone. Her limited mobility and advanced age heighten this concern.

Maria is constantly worried about getting injured in domestic accidents, such as slipping in the bathroom or burning herself in the kitchen, given her declining physical abilities. Maria wants to remain independent for as long as possible, so she fears losing the ability to manage her daily life.



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Scenario





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Design requirements

- Always ready for use;
- Easy and intuitive;
- Minimal design;
- Attention to sustainability;
- Water Proof;
- Impact resistant material;
- Not big and not physically and cognitive expensive*.

Market

Budget: $x < 300$ euros.

Facilities to prototype

- Figma;
- Canva;
- Miro;
- Onenote;
- Microsoft designer;
- Paper and pen;
- Cardboard.



*Not cognitive expensive=support recognition rather than recall or even use mnemonic strategies such as chunks.



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Extra

A pill of Neapolitan culture

In the South, neighbors are like relatives: they are always at your house or vice versa, you exchange what you cook, you organize big dinners in the street where everyone is welcome and you tell gossip together!

In Northern Italy, however, neighbors are just neighbors: you barely know each other, you exchange greetings, good morning and good evening and, at most, you ask for sugar or some other food if you don't have it at that moment at home.



We invite you to reflect on the active presence of your neighbors and the importance that people who live in Southern Italy give them.





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Website

- <https://www.msdmanuals.com/it-it/casa/i-fatti-in-breve-la-salute-degli-anziani/cadute/cadute-negli-anziani>
- <https://www.epicentro.iss.it/passi-argento/dati/cadute#indicatori>
- <https://www.epicentro.iss.it/incidenti-domestici/rischi-cadute-anziani>
- <https://www.privatassistenza.it/news/sicurezza-anziani-in-casa/>
- <https://www.enelcuore.it/tematiche-sociali/articles/2020/12/anزiani-oggi>

