



Fukuoka Dementia-Friendly Design

30 points for creating a more
inclusive environment



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Good Design Award Winner

Fukuoka City promotes the Dementia-Friendly City Project to create an environment where individuals with dementia can live safely and independently in their familiar neighborhoods. In fiscal year 2024, the Fukuoka Dementia-Friendly Design initiative was selected as one of the Good Design Best 100 from 5,773 entries.

This initiative emphasizes the abilities of people with dementia and seeks to foster an inclusive society through environmental design. It was recognized for its potential applicability to other local governments, especially its Design Guide and practical examples.

The Fukuoka Dementia-Friendly Design framework is structured around three key pillars, developed in collaboration with people with dementia to identify and address societal challenges:

City Planning

The initiative seeks to create accessible environments for all individuals by integrating dementia-friendly design principles into facilities and urban planning.

Product Development

It promotes the development of user-friendly, dementia-friendly products and services by facilitating collaboration between businesses and people with dementia.

People Development

The initiative advances understanding of dementia through educational programs, experiential learning, and interactive activities conducted at the Fukuoka Dementia-Friendly Center.

About the Good Design Award

The Good Design Award, hosted by the Japan Institute of Design Promotion, is Japan's leading design evaluation and promotion program, continuing a system established in 1957. It attracts participation from numerous domestic and international companies and designers. The "G Mark" is widely recognized as a symbol of design excellence.
<http://www.g-mark.org/>

Chapter 1

Background and objectives of the Design Guidet

Background

Currently, about one in eight individuals aged 65 and over, and one in two aged 90 and over, are affected by dementia. As dementia can impact anyone, the likelihood of individuals or those close to them developing the condition is increasing. Therefore, it is essential for all members of society to have a clear understanding of dementia.

People with dementia can live fulfilling lives when supported by understanding individuals and appropriate assistance. Society as a whole is encouraged to promote initiatives that reflect the perspectives of people with dementia and to foster an environment where all individuals can live with dignity and hope.

Since 2018, Fukuoka City has promoted initiatives grounded in this concept. This approach aligns with the Basic Act on Dementia to Promote an Inclusive Society, which took effect in 2024, and these initiatives are expected to be further strengthened.

Objectives

This guide presents 30 key points for creating a more pleasant and inclusive living environment. It addresses not only homes and facilities used by people with dementia but also a broad range of buildings, spaces, products, and services across the city.

The guide aims to bring together people with dementia, their families, local communities, healthcare and social care professionals, designers, businesses, and government officials to consider appropriate designs for each setting and promote dementia-friendly design throughout the city.

Informed by input from people with dementia, experts in care, architecture, and design collaborated to develop solutions that can be readily integrated into Japanese living environments and communities. Many designs are intended to be easily understood by all, not only those with dementia.

Roles

The design considerations in this guide apply not only to homes and care facilities but also to a wide variety of buildings and outdoor spaces. These principles can be integrated into new construction, major renovations, or simple modifications. They also contribute to the development of dementia-friendly products and services and serve as a reference for evaluating existing environments.

Creating a dementia-friendly environment requires considering both the physical environment (the “hard”), such as buildings and furniture, and the social environment (the “soft”), including public understanding of dementia and interpersonal interactions. A comprehensive approach addressing both aspects can help individuals with dementia live the lives they desire, supported by those around them.

Column

Co-production with individuals experiencing dementia

We want to carry on with our daily life as before even when we have dementia. However, many people with dementia have stopped going out, shopping and using transport for a variety of reasons. By understanding the needs of people with dementia and working together to providing services that meet those needs, various businesses can be part of helping people with dementia to live as they always have.

Fukuoka City is working to create an environment where people with dementia can have a sense of purpose and hope in life and can participate in society while making use of their experiences. One of the initiatives is to promote the development of products and services that are easy to use for people with dementia and all other types of people by connecting people with dementia and businesses and providing knowledge on dementia-friendly design.



Interaction between people with dementia and business people



Creating opportunities for people with dementia to be involved in product development



Development of products that are easy to use for people with dementia

In order to create an inclusive society, it is important to promote an environment where people with dementia and people from businesses such as buses and railways, banks and call centers, supermarkets and other retail outlets can work together. By understanding and responding to the needs of people with dementia, businesses such as buses and railways, banks and call centers, and supermarkets and other retail outlets, can contribute to creating an inclusive living environment along with the people with dementia themselves.

Column

Urban development through universal design in Fukuoka City

'Fukuoka Dementia-Friendly Design' is based on universal design. Universal design is the concept of designing products and environments to make them accessible to a diverse range of people, regardless of disability, age, gender or race. The aim of Fukuoka Dementia-Friendly Design is to create a calm, easy-to-understand environment that is accessible not only to people with dementia, but also to a wider range of people, thereby supporting people's lives.

Barrier-free urban planning

Fukuoka City has formulated the Fukuoka City Welfare Urban Development Ordinance and the Fukuoka City Barrier-Free Basic Plan to promote urban development based on the principle of universal design. The city is promoting barrier-free initiatives that integrate physical and social environments so that all citizens, including the elderly, people with disabilities and people with children, can live safely and move around smoothly. Hard and soft barrier-free measures are being promoted in an integrated manner.

Hard approaches



Eliminating steps at toilet entrances (ramp conversion)

When new buildings and other facilities are constructed or refurbished, meetings are held in advance with constructors to ensure that they comply with barrier-free standards. Barrier-free access is also progressing at train stations, bus terminals, roads and parks.

Soft approaches



Public relations magazine: The Barrier-Free Mind

To deepen people's understanding of mobility issues and daily difficulties faced by the elderly and people with disabilities, we distribute and promote The Barrier-Free Mind, a magazine that provides easy-to-understand explanations on how to talk to and help people with disabilities.

Bench Project



Utilizing grants to install benches

To create an environment where everyone can easily get out and about, we are promoting the Bench Project, an initiative that involves installing benches throughout the city.

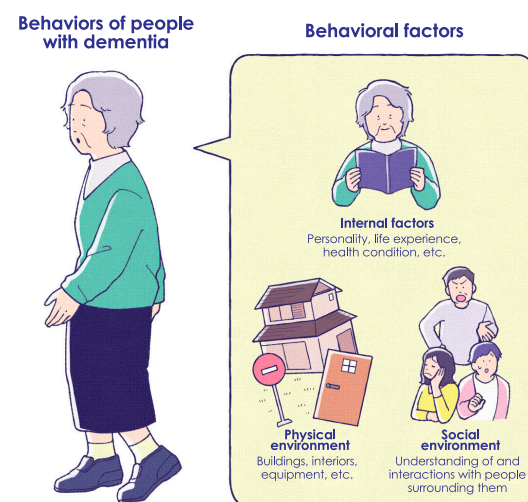
Chapter 2 Learn about dementia

What is dementia?

Dementia is a condition in which various brain functions deteriorate and people find it more difficult to socialise or work than they used to. The brain is the command center that controls all our activities; if it does not work well, our mental and physical activities will no longer run smoothly. People with dementia are affected in various degrees ranging from mild to severe symptoms. There are also people who experience cognitive decline or mild cognitive impairment (MCI) even when they are not diagnosed with dementia. It is important to understand what problems the person has and to deal with them individually, rather than grouping them all together as having dementia.

Understanding behaviors and perspectives of people with dementia

The behavior and psychological state of people with dementia are not caused only by symptoms of dementia, such as memory impairment, but by a complex combination of: the internal factors of the individual (dementia, personality, past life and health); their physical environment (buildings, interiors and equipment); and their social environment (the understanding of and interactions with the people around them). The behavior of the person with dementia are only a visible part of the picture. It is important to understand and resolve the underlying causes of their behavior, including the individual's inner life and environment, rather than simply judging from the behavior alone.

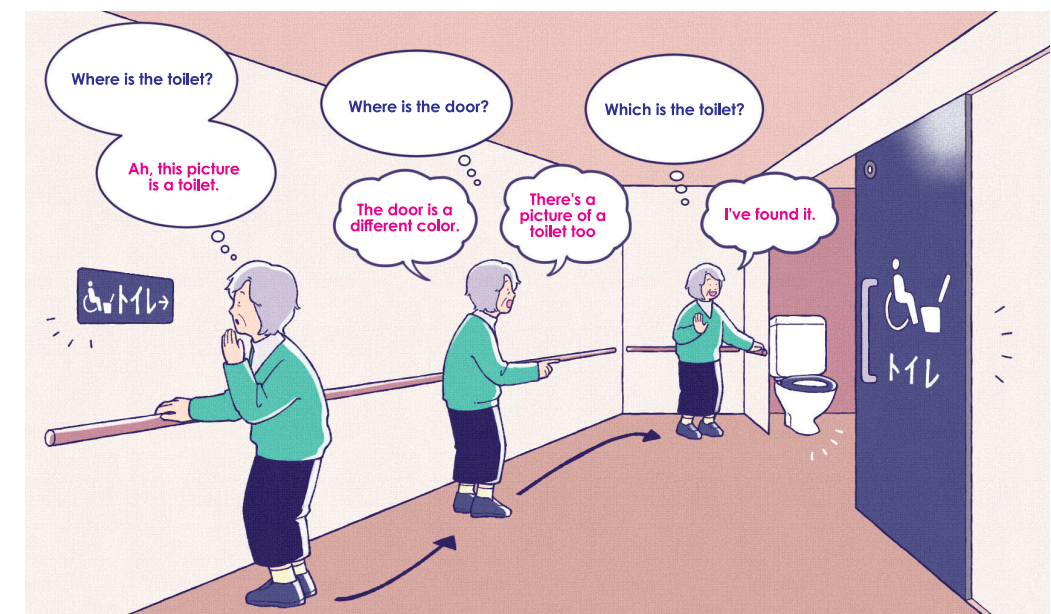


The Fukuoka Dementia-Friendly Design described in this guide is designed to make everyday life easier for people with dementia and their families by improving the physical environment of the homes, public facilities and outdoor spaces where they usually use in their daily lives.

Impact of dementia on the individual

Symptoms of dementia, such as memory impairment, disorientation and impaired comprehension and judgement, as well as visual, hearing and walking impairments due to ageing, can make it difficult to be independent. Creating an environment catering to these challenges can support the person with dementia as well as their family and carers.

For example, the action of going to the toilet is completed through multiple stages: looking for the toilet; opening the door; and locating the toilet seat. At each stage, it is important to identify and remedy any stumbling blocks for the person with dementia.



Column

Living with dementia

Many people feel confused and anxious when they are diagnosed with dementia. However, just because someone has dementia does not mean that they will suddenly forget everything or become unable to do anything. It is important not to feel anxious or distressed alone, but to seek advice and think together with people you trust about how to live with hope in your own way.

It is important that people around the person with dementia do not judge the person based on preconceptions or images of dementia. They should understand the situation the person is in and support them. It is also important to listen to the thoughts of both the person with dementia and their carer. Both the person with dementia and their carer should be able to relax with each other while making good use of care services, and value meeting and connecting with others who can support them on their journey.

Chapter 3

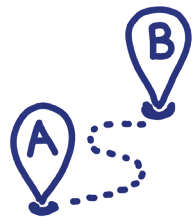
Basic design concepts and key points

Basic concept of design

Dementia-Friendly Design means universal design considered from the perspective of older people, not just people with dementia, and designed to fulfil the required functions based on an understanding of the perspective of people with dementia. In this guide, the following two concepts are the basis for designing for older people, including people with dementia

1

Creating spaces where people can move without relying on memory



Enable people to understand where they are and where they want to go from the clues available to them at the location, without having to rely on memory.

People with dementia find it difficult to rely on memory to understand their surroundings. To create a sense of independence and security, it is important to incorporate clues in their environment to help people understand what is going on. It is important to place distinctive landmarks effectively, to remove unnecessary or confusing objects, and to divide the space into small sections so that the desired place or object can be seen naturally and the whole area can be seen at a glance.

2

Creating places where people feel safe and can choose to be themselves



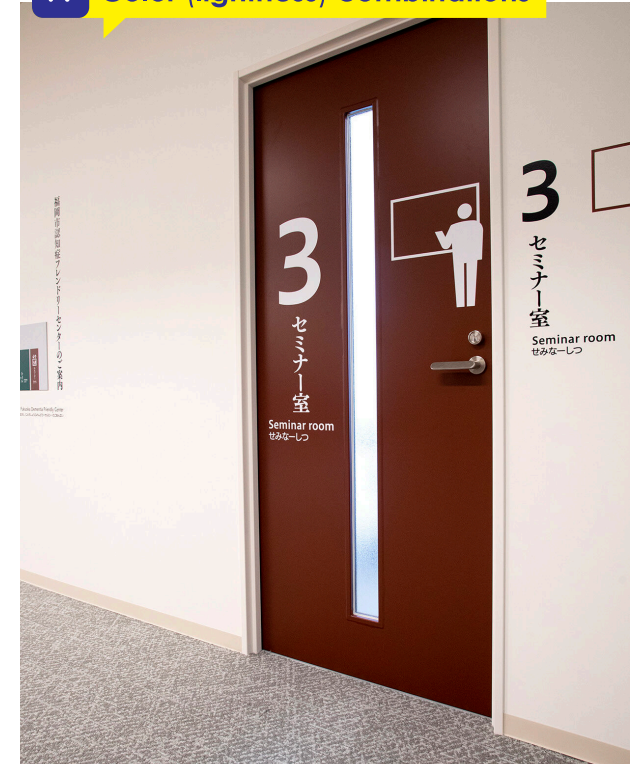
There are places where people can be alone, can interact with others and can choose to be themselves in a safe and secure environment.

Being able to choose their own behavior is the first step towards living a fulfilling life. Personal areas can be clearly separated from communal areas and furnished with familiar furniture and objects to create a cosy and secure space. Other areas can also be furnished with representative furniture, lighting and decorations to make it easier to understand what the place is for and to expand the range of behavior options. Ensuring safe and free access to outdoor spaces can also help people to continue to live their lives in a way that they want.

Five perspectives of design

In order to put into practice the concepts of creating spaces where people can move without relying on memory and creating places where people feel safe and can choose for them themselves, five perspectives have been established and 30 specific design points have been compiled.

A Color (lightness) combinations



B Utilizing signs and landmarks



C Adjusting lighting



D Considering familiarity and a sense of security



E Safe outdoor spaces



A Color (lightness) combinations

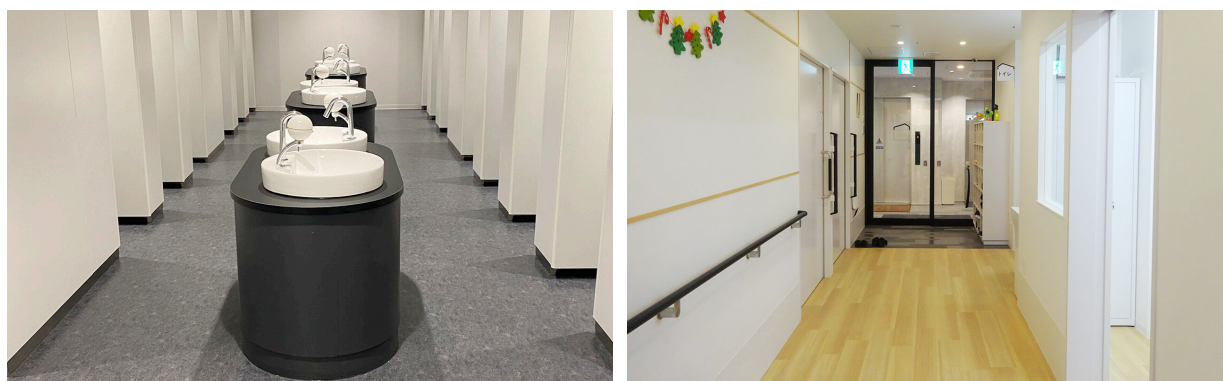
In addition to age-related changes in color perception, some people with dementia may have reduced visual acuity, peripheral vision and ability to process visual information. Areas that you want them to recognize can be contrasted with color (lightness) to draw their attention. If there are objects that you do not want people to recognize, you can make them less noticeable by not contrasting them.

Point

1 Increase contrast in lightness.

Having clear spatial awareness and being able to reach destinations such as the toilet or their room without getting lost helps independent living. Make things you want people to recognize and notice contrast in lightness with their surroundings to make them easier to find.

Floors and walls



Contrast between floors and walls can help people with reduced visual ability to perceive space.

Doors and walls



Doors should be contrasted with walls so that they are easily recognizable. It is reassuring to know where you are going.

Toilets



Toilets should contrast clearly with their surroundings so that the toilet is clearly visible, as there is a high risk of tripping in the toilet.



Before

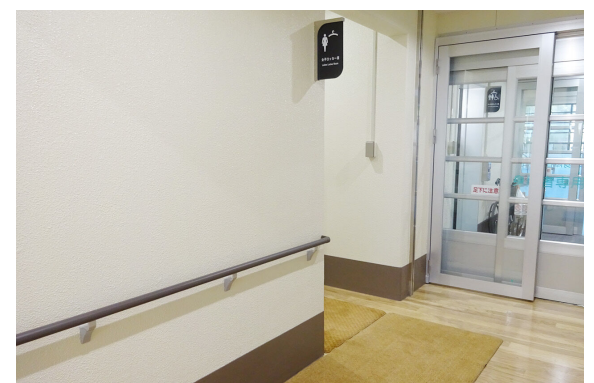


The color of the toilet door should contrast with the surrounding walls. This makes it easier to find and reduces confusion.

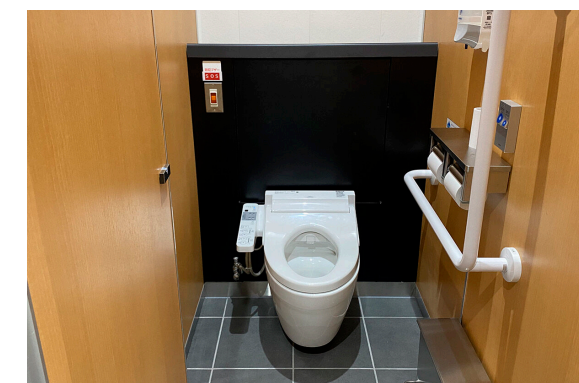


After

Handrails and handles



Contrast handrails with walls, and handles with doors.



Dining areas



There should be a contrast between the floor and chairs, and the floor and tables.

Food and tableware



Clearly recognizable food can increase appetite. There should be clear contrast between food and tableware.

Column

Hue, lightness and saturation

Color has three attributes: hue, lightness and saturation. Lightness is the most important of these when it comes to contrast. Lightness can easily be checked by taking photos with the black and white mode of a camera.

Hue:

Hues describe colors, such as red, yellow, green, blue and purple.



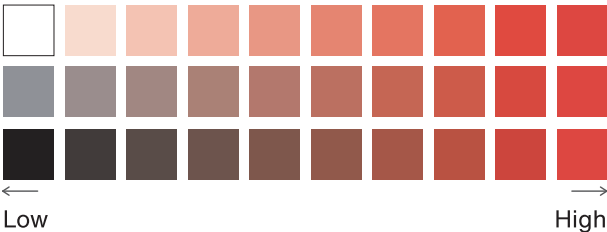
Lightness:

The degree of lightness of a color refers to the amount of light perceived by the eye. White has the highest lightness and black has the lowest.



Saturation:

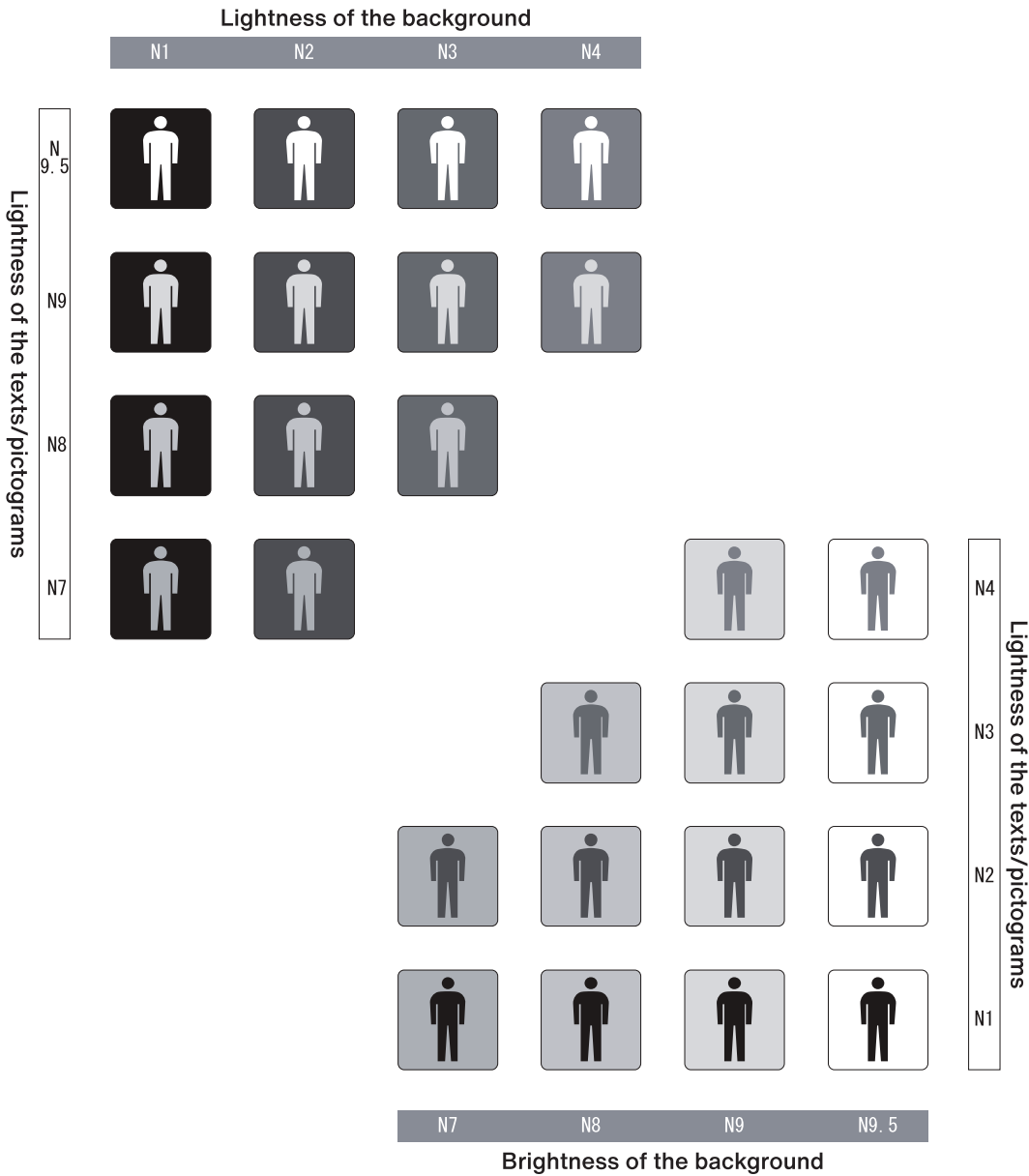
The degree of vibrancy of a color refers to the degree to which white and black are mixed together. Like the primary colors, the less white or black a color contains the higher the saturation.



Column

Contrasting lightness between text/pictograms and their backgrounds

It is easier to identify a sign if the lightness of texts and pictograms are contrasted against their backgrounds to the extent shown in the diagram below.



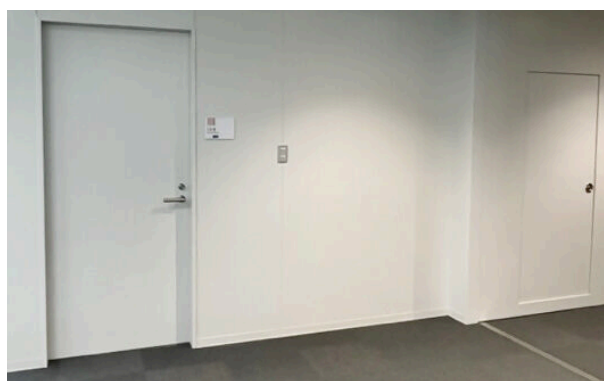
References :
Ministry of Land, Infrastructure, Transport and Tourism (2021),
Architectural Design Standards for Smooth Mobility of the Elderly and Persons with Disabilities, 2021 Edition [Japanese]
Ministry of Land, Infrastructure, Transport and Tourism (2022), Guidelines for the Development of Public Transport Passenger
Facilities to Facilitate Movement, etc. (Barrier-Free Development Guidelines for Passenger Facilities) (March 2022 edition) [Japanese]

point

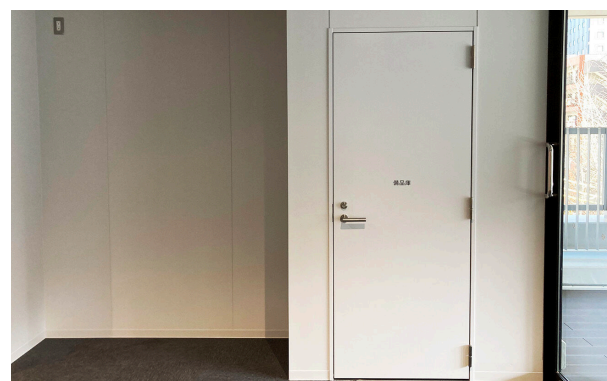
2 Reduce contrast in lightness.

Doors to areas that are off limits (e.g. staff facilities) should be a color that blends in with the surroundings without contrast. In addition, the floor color throughout the living space should be consistent. Contrasting floors can look like steps, which can lead to people to stop in place or hesitating when stepping out, which can lead to loss of balance and falls.

Staff facilities



Doors to offices and other areas used mainly by staff should be discrete and the contrast reduced so as not to stand out.

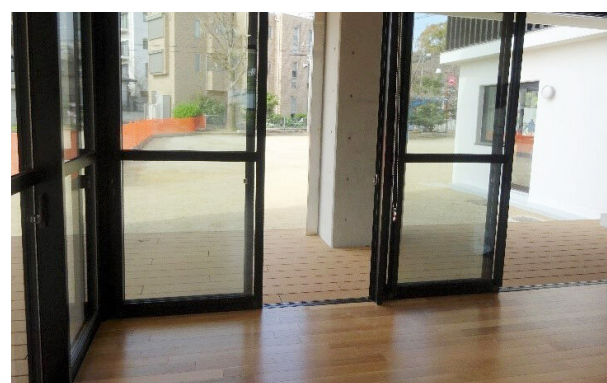


Storage cupboards used by staff should also be discrete and the color should be matched to the surrounding walls.

Floors



Contrast should be eliminated as much as possible and the lightness of the floors should be consistent throughout the building, e.g. the floor between the toilet and the corridor, and between the room and the corridor.



Similarly, contrast should be kept to a minimum on floors inside and outside the building (e.g. balconies).

B Utilizing signs and landmarks

point

3 Provide legible and easily recognizable signs.

Signs should not only be written but also accompanied by easy-to-understand pictograms. Signs should also be of an appropriate size. Signs should contrast texts/pictograms against their backgrounds. Abbreviations and jargon should be avoided and should be consistent throughout the building, including typefaces.

Use texts and pictograms together.



Use concise, easy-to-understand pictograms in addition to texts.

Set appropriate sizes.



Consider the distance from which the sign will normally be seen and make sure it is the right size for that distance.

Provide contrast.



Create a contrast between the texts/pictograms and the background to make the sign highly visible.

Use familiar language.



Avoid unfamiliar foreign words and jargon, and use words that are familiar.

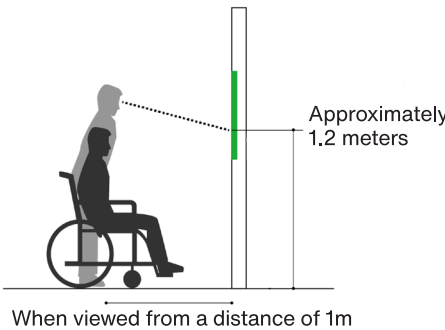
NB: The characters shown on the sign are examples when the native language is Japanese.

Point

4 Place signs in appropriate locations.

It is important to place signs in places where they can be seen naturally by people with dementia. Install signs at appropriate heights and positions, and also consider the location of any directional signs.

Install at a height that is easy to see.



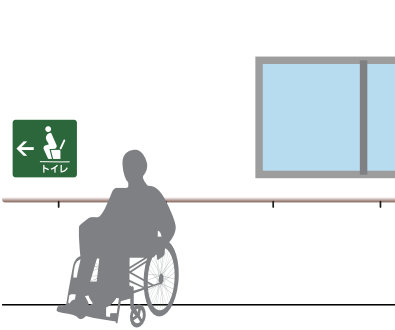
Older people, including those with dementia, tend to stoop. Install signs at approximately 1.2 meters off the floor, in line with eye level.

Position signs where they can be easily seen.



Room name signs, for example, should be displayed directly on the door and emphasized by color or other means. If doors are often left open, place them on the wall next to the door as well.

Install directional signs.



If the room is not directly visible or the corridor to the room is long, install directional signs using arrows at appropriate points, such as at junctions in the corridor, to indicate the direction.

Column

Text sizes of signs

In order to create highly visible signs, it is important to consider the distance from which the sign will be seen (visibility distance) and set the appropriate number and size of texts.

Viewing distance	Japanese text height	English text height
For 30m	120mm or more	90mm or more
For 20m	80mm or more	60mm or more
For 10m	40mm or more	30mm or more
For 4 to 5m	20mm or more	15mm or more
For 1 to 2m	9mm or more	7 mm or more

Source: Guidelines for Facilitating Smooth Mobility in Passenger Facilities of Public Transportation (Barrier-Free Development Guidelines: Passenger Facilities Volume) (September 2025 Edition) <https://www.mlit.go.jp/sogoseisaku/barrierfree/content/001913508.pdf>
Architectural Design Standards Considering Smooth Mobility for the Elderly, Persons with Disabilities, etc. (FY2025 Revised Edition) <https://www.mlit.go.jp/jutakukentiku/content/001892119.pdf>

Point

5 Place signs on the surface of toilet doors.

Signs should be placed on toilet doors. Uniform coloring in the building will make it easier to recognize locations of toilets by their color.



Point

6 Place memorabilia that trigger positive memories in front of their own room or home.

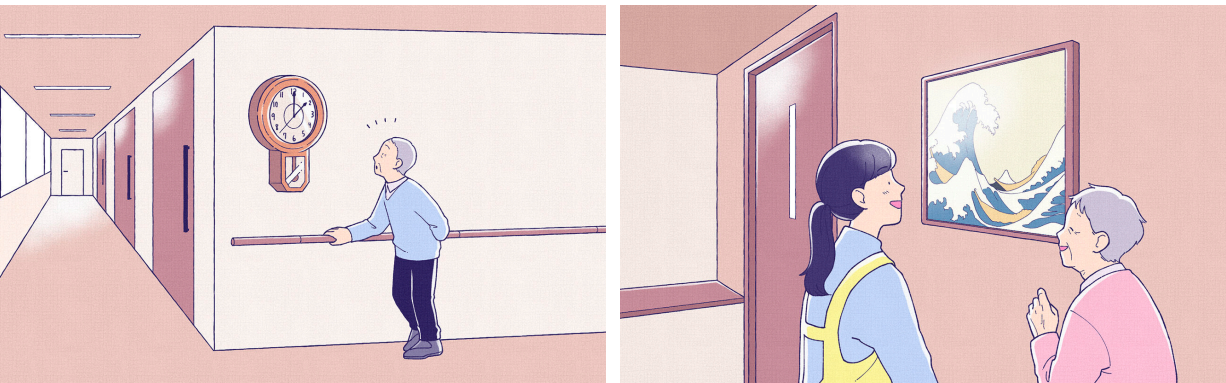
Placing items from the past, old photographs and memorabilia in the room or in front of their home can make it easier to locate.



Point

7 Place distinctive landmarks in appropriate places.

Distinctive objects are easy to remember and are useful when people want to locate themselves. Place familiar or nostalgic objects in places where people need to determine where they are going. Placing objects related to the room in the vicinity will also help them intuitively understand the meaning and purpose of the space.



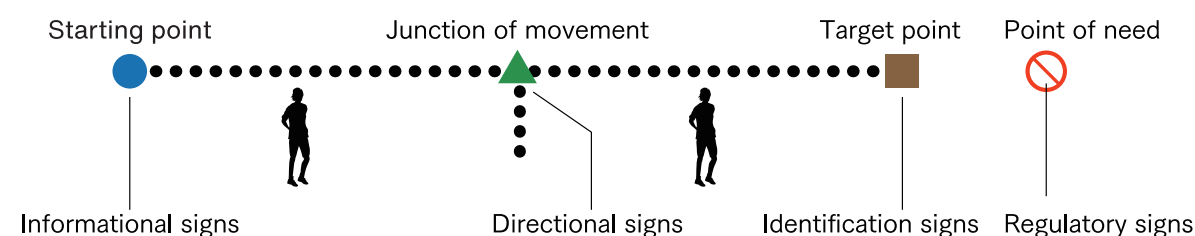
Decorating the corridor with distinctive objects, such as an old clock or an old photograph of the area, can serve as a landmark and make it easier to recognize a place.

Distinctive artwork provides a clue to finding a location, as well provides a talking point for those passing by.

Column

Types of signs

There are four main types of signs. Install appropriate signs in line with the user's movement.



Informational signs



Signs used at entrances to facilities to give an overall picture. They indicate a map of the facility and information on its use.

Directional signs



Signs indicating the direction of a room or place. They are placed at junctions in corridors.

Identification signs



Signs on room doors, etc. They indicate the name of the room.

Regulatory signs



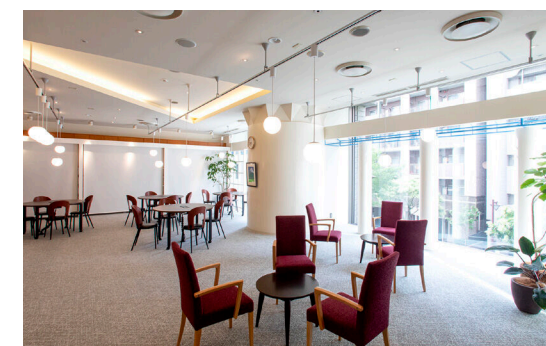
Signs that inform people of precautions and prohibitions. Use pictograms, etc., that are easily recognizable at a glance.

C Adjusting lighting

Many older people, with or without dementia, experience a decline in visual ability as they age. To make it easier for them to understand their surroundings and to reduce the risk of falling, ensure that there is an appropriate amount of light indoors. In addition, low activity during the day or exposure to bright lighting at night can disturb sleep at night. Adjusting the brightness helps regulate the body's internal clock.

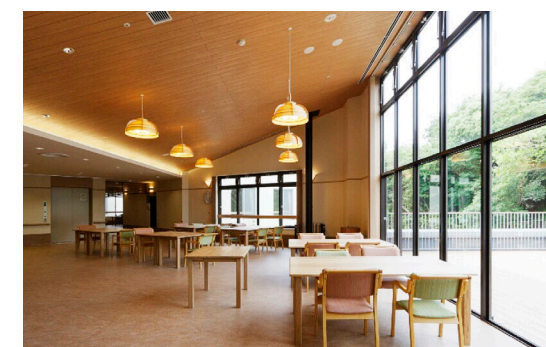
Point 8 Arrange ample lighting.

As we age, we need more light to see. Position sufficient lighting and provide dedicated lighting for manual tasks.



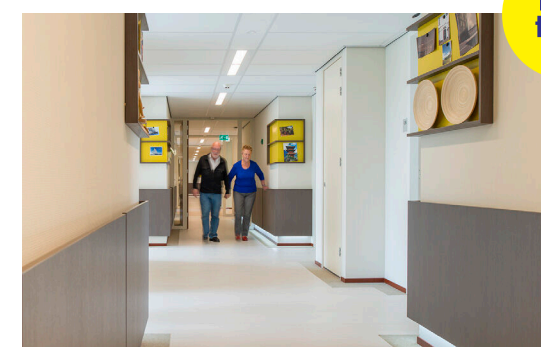
Point 9 Allow sufficient natural light in.

Try to increase the amount of natural light that comes into the room during the day. Natural light helps regulate the body's internal clock, improves sleep quality, stabilizes emotions and moods, and increases appetite.

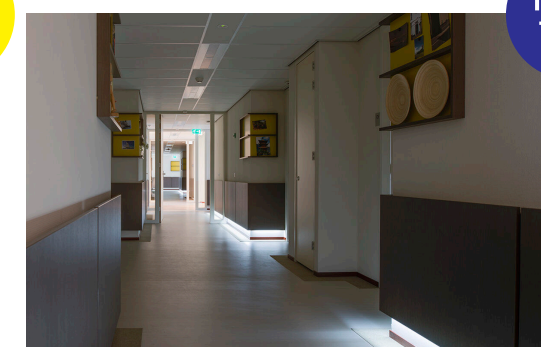


Point 10 Adjust lighting according to the time of day.

Brighten lighting during the day and darken it at night to help regulate the body's internal clock. At night, it is necessary to ensure that light does not leak into areas that should be darkened.

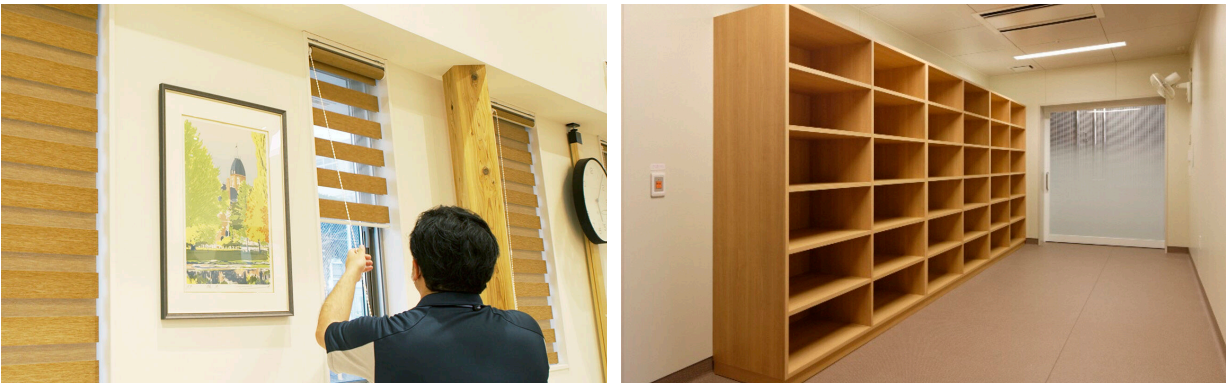


Day time



Night time

Point
11 Reduce unpleasant glare.



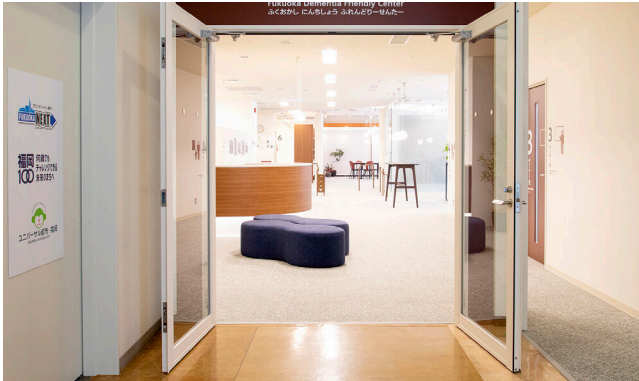
As we age, we find it more difficult to cope with strong light, so we should try to prevent glare. Use indirect lighting and curtains to control sunlight.

Reflective floors can look wet and can lead to falls. Try to avoid reflective materials and use materials with a matte finish.

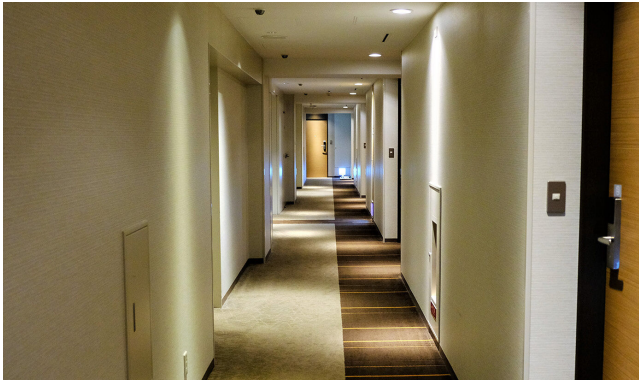
Point
12 Avoid shadows and dark areas in corridors.

Shadows on the floor or dark corners of rooms can be mistaken for steps or shadows of people.

Good



Bad



Column

Lighting standards in housing

The Japanese Industrial Standards (JIS) set out the lighting standards for residential dwellings and recommend that lighting settings should be higher than those shown below if the subject's visual function is low. Older people may find higher lighting levels desirable, as their visual function declines with age.

JIS maintained lighting (lx)	Corridor/entrance		Living room			Cafeteria		Bedroom	Bathroom, toilet		Outdoors
	stairways/hallways	entrance (inside)	Living room	drawing room	study	Cafeteria	kitchen	Bedroom	Bathroom, rest room	toilet	Garden
1000			Crafts, sewing								
750					Reading, studying			Reading, make-up			
500		Mirrors	Reading		Working on a computer						
300						Dining table	Cooking tables, sinks		Wash, shave, make-up		
200		Shoes off, shelves	Gathering, entertainment	Tables, sofas							
100		General		General	General		General		General		Eating, parties
75										General	
50	General		General			General					
30											Terrace, General
20								General			
5											Passageway
2	Late night							Late night			Security

General and local lighting should be used together, depending on the use of each place. Dimming also should be made possible in living rooms, reception rooms and bedrooms.

Reference
Japanese Industrial Standards (2011), JIS Z 9110:2011 General rules of recommended lighting levels Please refer to the latest JIS standards.

Blue lighting with short wavelengths has been shown to suppress the secretion of the hormone melatonin, which promotes sleepiness, and to disturb the rhythm of the body's internal clock. In bedrooms and at night, blue lighting (daylight or daylight white) with short wavelengths should be avoided and bulb-colored lighting should be used.

D Considering familiarity and a sense of security

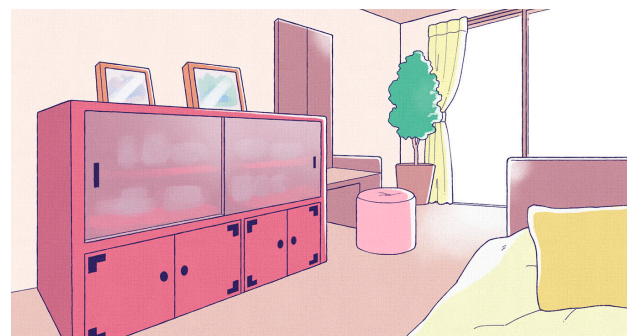
It has been found that for people with dementia, memories of their youth are retained for a relatively long time. The person can feel pleasure and security from familiar objects and can make good use of familiar things. Knowing the person's previous way of life, hobbies and preferences can help create a familiar environment. These are particularly important in environments outside the home, such as in care homes and hospitals.

Point

13 Create a homely atmosphere.

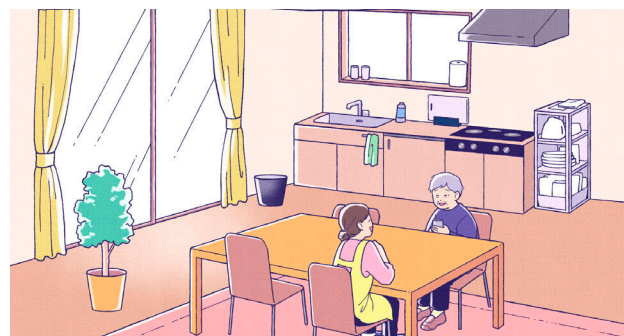
Avoid inorganic interiors that lack a lived-in feel. Create an atmosphere that feels familiar and relaxing, just like their own home. Also, make a clear distinction between private and communal areas so that they are intuitively recognizable.

Private areas



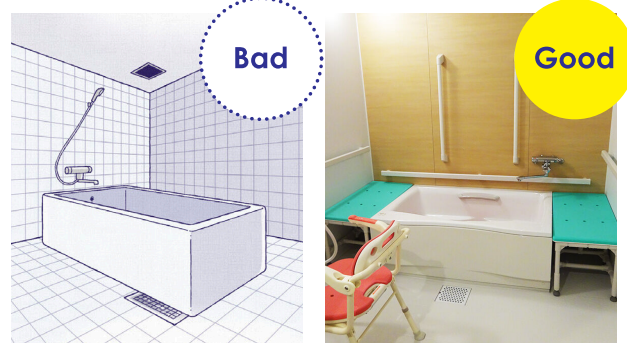
Spaces with the person's personal belongings and furnishings motivate daily activities and stabilize emotions and behaviors.

Communal areas



Arranging things that are characteristic of the room, such as cupboards in the dining room, in a way that makes it feel like home, calms the mind and encourages interaction with others.

Toilets and bathrooms



Aim for a calm and relaxing interior where people can recognize the place they are using, rather than an inorganic space that focuses only on ease of use for carers.

Lighting fixtures



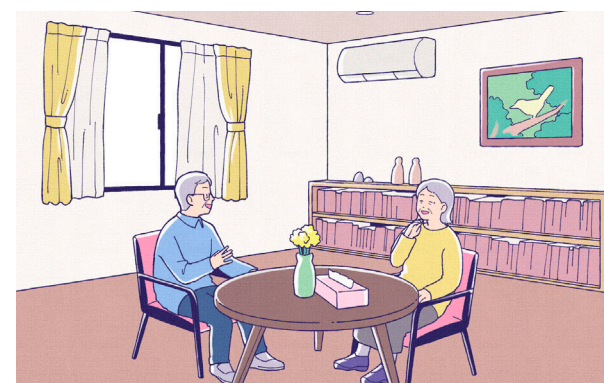
Use of homely light fittings creates a home-like atmosphere.

Point

14 Create spaces where people can choose what they want to do.

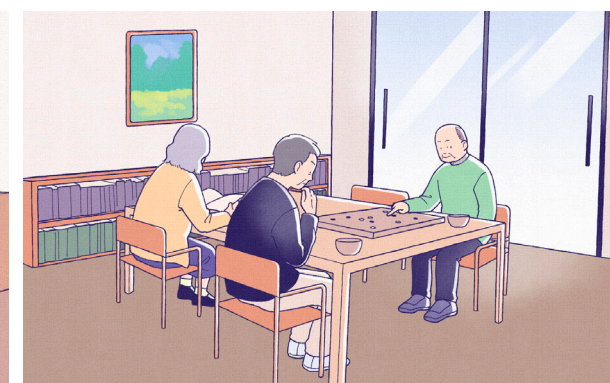
People with dementia can suffer from feelings of loneliness and helplessness. Create an environment where people can choose what they can and want to do, rather than what they can no longer do, and choose for themselves what interests them, while connecting with people.

Lounge



Provide a place where people can sit and chat. Furnishings should be clearly visible so that people know what they are doing.

Hobby spaces

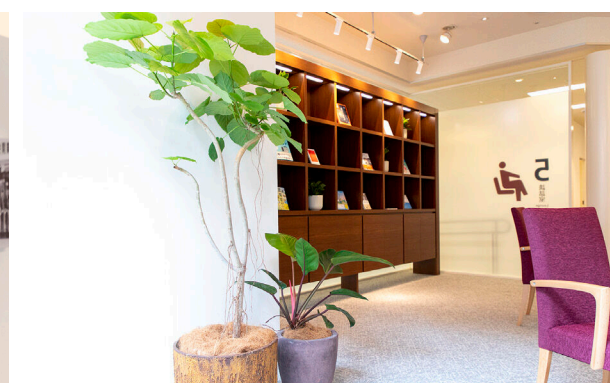


Ensure the opportunity to partake in activities that interest people, promoting a satisfying and enjoyable lifestyle.

Other



Memories of your youth will be retained for a long time. Decorating the room with nostalgic objects, such as photos from those days, can be calming.



Aquariums and plants can add color to a space and spark interest and curiosity.

Point
15 Keep spaces clutter-free.



Cluttering spaces with objects and displays makes it difficult to find what people are looking for, and clutter can also cause confusion. Remove as much unnecessary items as possible, so that what people can naturally see what they need.

Point
18 Select and arrange furniture that is easy to use and accessible.



Having appropriately-sized chairs available in the corridor allows people to sit and think if they forget where they are going. At the same time, they also serve as place markers.

Point
16 Provide a direct view of the intended place or object.

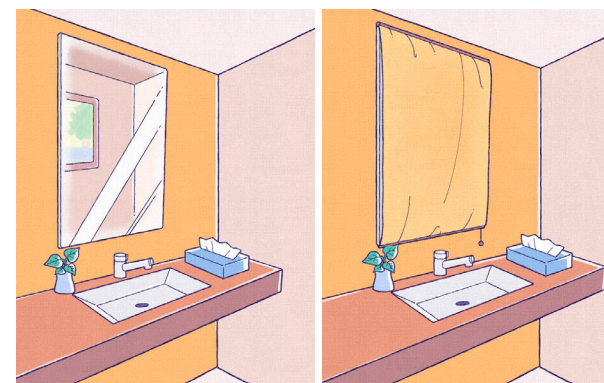
Being able to see inside a room from the outside helps people understand the purpose of the room and prevents anxiety before entering and confusion afterwards. The use of furniture such as wardrobes whose contents can be directly seen is also effective.



Being able to use the toilet or bathroom independently gives users confidence. Handrails and toilet paper should be placed in easy-to-use positions. Also choose a washbasin and tap that people are familiar with, so that they can use them without confusion.

Point
17 Reduce echoes and noise in the room.

Echoes and noise in a room can be mentally taxing, confusing and stressful. Create a quiet space.



Some people with dementia may not recognize their reflection in the mirror, which can cause anxiety. Cover them if necessary.

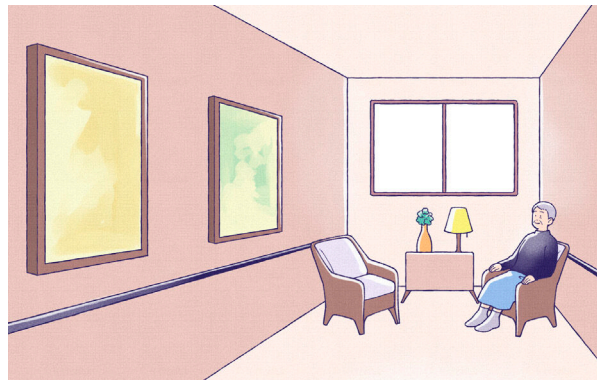
Point
19 Do not lock doors used by people with dementia.

Locked doors can lead to unnecessary frustration and anger. Make it an environment where people can choose and act on their own.



Point
20 Make dead-ends interesting and relaxing.

A space where people can enjoy pictures and flowers, or read books and newspapers, can help ease the feeling of dead-ends and create a friendly atmosphere.



Point
21 Prepare a space where people can concentrate on eating.

Keep the number of people in the dining area below 10 so that people can concentrate on their meals. It should be possible to accommodate people who want to eat alone.

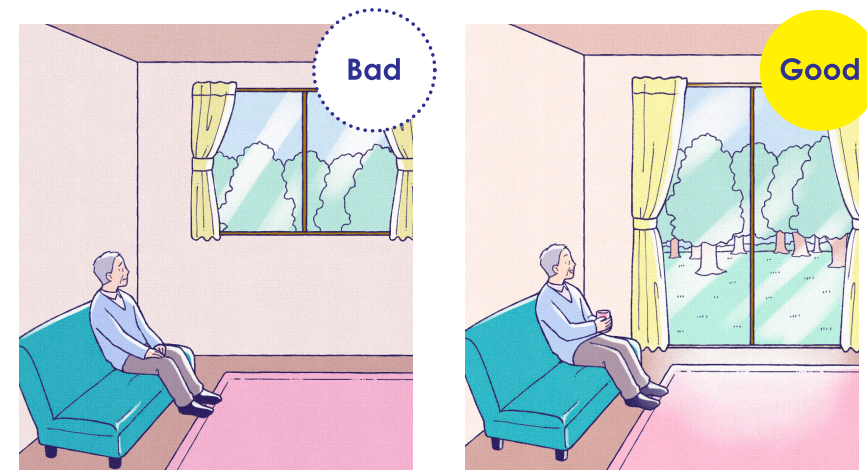


Point
22 Avoid using large or strong patterns.



Some people with dementia may feel anxious or confused about large or strongly colored patterns. Choose calming patterns for floors and walls.

Point
23 Place windows where people can see outside even when sat down.



Ensure that people can enjoy the outside view, even when sat down. This reduces the feeling of being confined indoors and creates a connection with the outdoors by allowing them to experience the weather and the seasons.

Point
24 Position the toilet in a place that is easily seen.

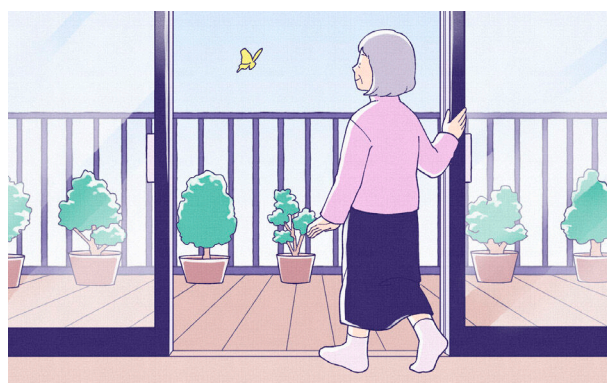
Toilets should be located in a place that is visible from the spaces where people normally spend their time. If it is not in a visible location, install an easily recognizable sign. It is also important that the toilet does not emit odors.



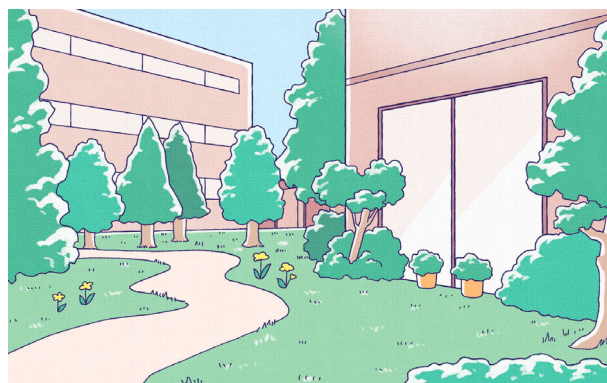
E Safe outdoor spaces

An environment where people can move around freely reduces stress and also encourages independent activity. Being outdoors also improves physical and mental health. Locked outdoor entrances may prevent the person from doing what they want to do and lead to anger and frustration. Consider ways to keep them safe in a subtle and discrete manner.

point 25 Provide safe access to and from the outdoors.



During the daytime, it is desirable that entrances and exits to balconies and other areas are not locked, and that they should be able to be accessed freely, taking safety into consideration. Door handles for entrances and exits should be easy to open.



Outdoor spaces should be designed to prevent people with dementia from accidentally leaving the premises. Planting near the site enclosure can help to subtly disguise any off-site entrances and exits.

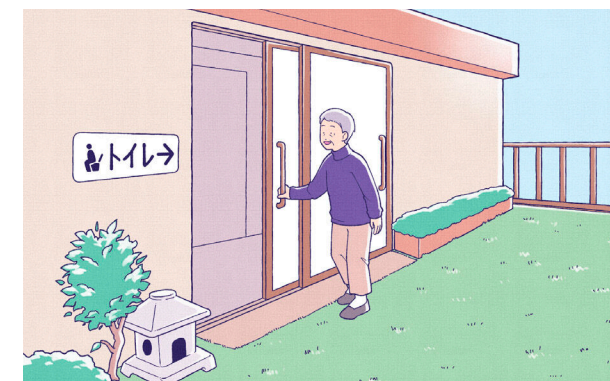
point 26 Ensure that pedestrian areas are free of steps, slips and reflections.

Choose pedestrian areas that are flat, non-slip and non-reflective. Drainage should also be considered.



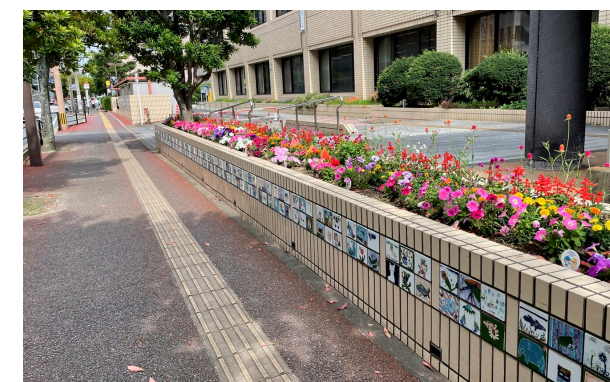
point 27 Make it easy to reach toilets from outside.

If toilets are located in areas that are not directly visible from the entrance/exit area, install easy-to-see signs in well visible locations.



point 28 Arrange garden furniture such as flowerbeds for enjoyable activities.

Tables and chairs, places to hang clothes to dry, greenhouses, sheds and workshops are good opportunities to get out and exercise. Raised Flowerbeds allow people with bad knees or wheelchairs to enjoy gardening.



point 29 Provide benches for resting and relaxing.

A resting place makes it easier to go outside. In addition to the contrast between the ground and the bench, make sure it is safe, strong and well secured to the ground.



point 30 Make it easy for children to visit.

Children's presence brings enjoyment to people. Try to incorporate innovations and interaction mechanisms that make it easier for children from the neighborhood to visit.



Chapter 4 Design implementation in practice

Practical examples of design implementation

Fukuoka Dementia-Friendly Design was implemented in the Tsutsumi Community Center in Jonan Ward, Fukuoka City, and interviews and questionnaires were conducted with people with dementia and people who use the community center. Examples of the designs in the Tsutsumi Community Center are introduced here. When planning dementia-friendly designs, it is important not to implement the designs shown below in a uniform manner, but to discuss with the stakeholders concerned and implement designs that take into account the purpose of use of the facility and the situation of the users.

Main points utilised 1 Increase contrast in lightness.

Auditorium



Before



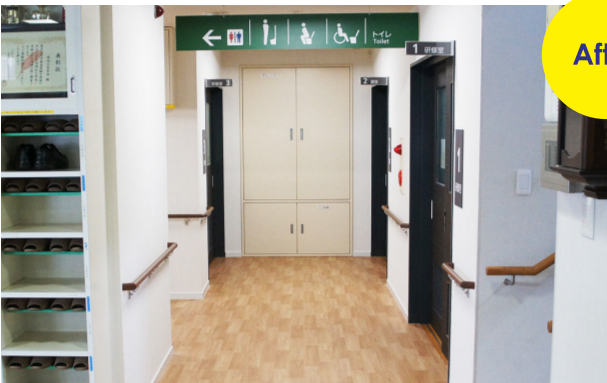
After

To make it easier to locate the auditorium, the contrast between the walls and doors is made clearer. In addition, the room name signs are placed at eye level in a larger size.

Corridors



Before



After

To facilitate spatial awareness, the flooring is contrasted with the walls.

Toilets



Before



After

To make it easier to identify the location of the toilet bowl, it has been contrasted against the walls and floor. The wallpaper color is changed at waist height to prevent the inside of the toilet from becoming too dark.

Main points utilised 2 Reduce contrast in lightness.

Staff office



Before



After

Doors used by staff in the facility are made less visible, so the contrast between the door and the wall is weakened.

Toilet and corridor floors



Before



After

To avoid being seen as steps, the floors between the toilet and corridor are color-coordinated.

Main points utilised

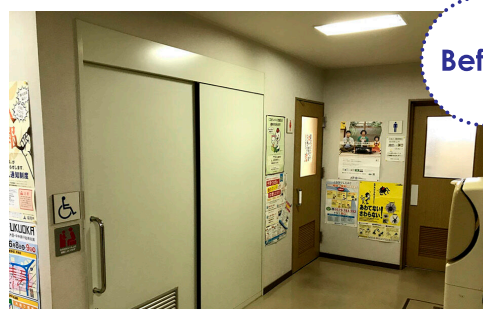
point

3 Provide legible and easily recognizable signs.

point

4 Reduce contrast in lightPlace signs in appropriate locations.

Toilets



Before



After

Signs with both texts and pictograms are placed at eye level. In addition, the wall and door are contrasted to make it easier to identify the toilet.

Installation of other signs



Switches in toilet



Floor map of the building



Directional signs

Switches with both texts and pictograms, a floor map of the building and directional signs are installed.

Main points utilised

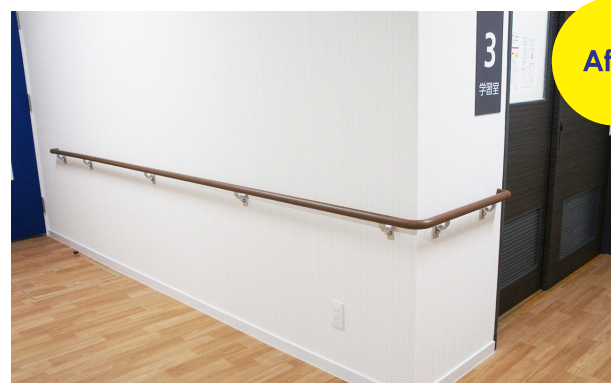
point

15 Keep the space clutter-free.

Corridors



Before



After

To avoid confusion, posters and notices have been removed from the walls in the corridors and consolidated in the noticeboard area. In addition, handrails contrasting with the walls have been installed to prevent falls.

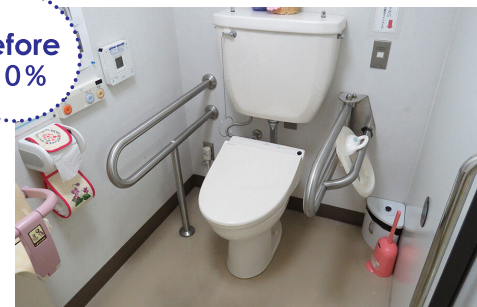
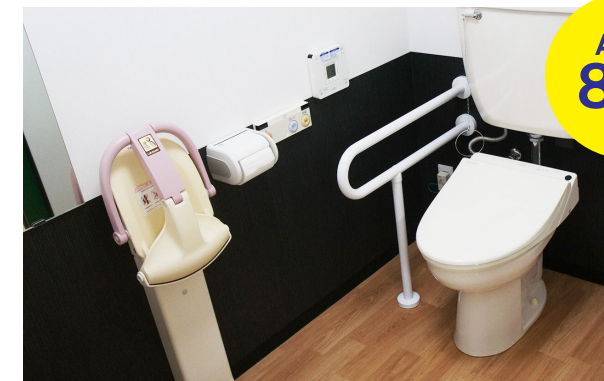
Design survey of people with dementia

(30 people with dementia)

When asked what room that was for the before and after photos, 100% of the respondents said it was a toilet in the after photo.

Before
13%After
100%

When asked which toilet was easier to find in the before and after photos, 80% of respondents said it was easier to find in the after photo.

Before
20%After
80%

Design survey of community center users

(97 users)

More than 90% of the respondents answered that the location of the toilet doors and the toilet bowls were easy to find, and 99% of the respondents gave positive answers about their overall impression of the community center, such as cosy and bright.

Location of toilet doors



Location of toilet bowls in toilet

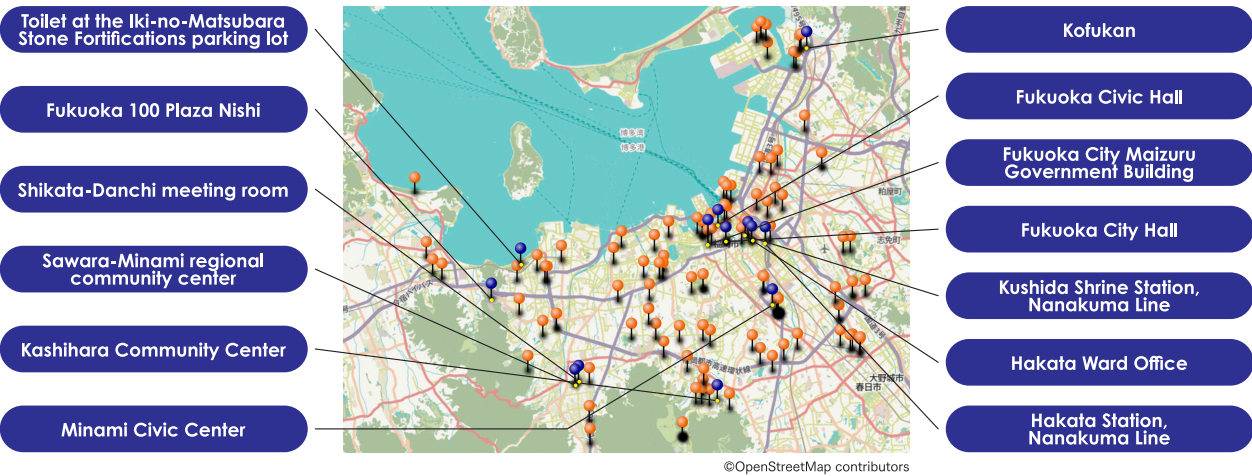


Impression of the design of the community center

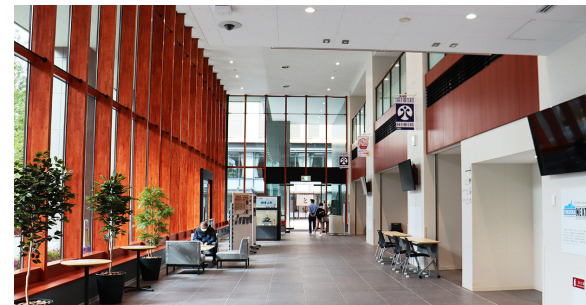


Introduction to facilities that implemented the design

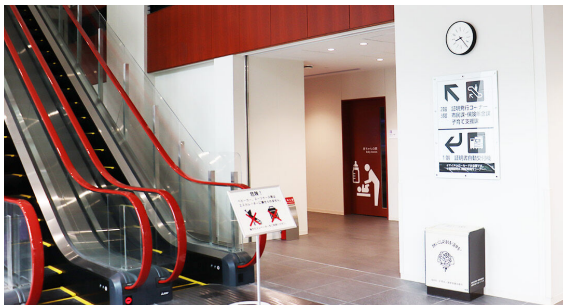
Fukuoka City has introduced Fukuoka Dementia-Friendly Design since 2019, reaching 147 facilities by the end of March 2026.



Hakata Ward Office



Large windows provide ample natural light. The presence of plants creates a calm space.



Escalator handrails are in a color that contrasts with the surroundings, making them easy to recognize. Signs are installed in an easy-to-read size.

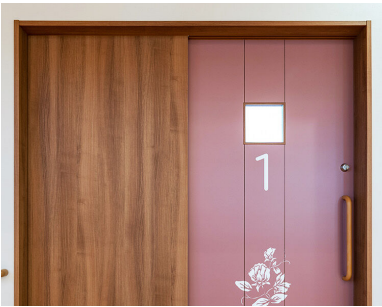


The floor and walls contrast with each other, making it easy to recognize the space. Elevator doors contrast with surrounding walls and are easy to recognize.



Furniture contrasts with the floor and is easy to recognize. Window signs are of a size that is easy to read.

Kofukan, Multifunctional long-term care in a small nursing group home



The doors are colored to contrast with the surroundings. Doors are marked with numbers and illustrations to serve as landmarks.



The contrast between the floor and walls makes it easy to recognize the space. Some people get confused when looking in the mirror, so it is covered.



To make the toilet bowl and handrails easily recognizable, the rear section is a contrasting color.

UR Shikata Housing Complex Meeting Hall



The entrance frame is bordered in black to make it easier to recognize. Furniture such as shoe boxes contrast with their surroundings and are easy to recognize.



To make the washbasin easier to recognize, the rear part is in a contrasting color to the washbasin. A sign is provided to make it easy to understand how to use the automatic tap.



Doors that are not in general use are inconspicuous and of a color that does not contrast with the surrounding walls.

Minami Ward Civic Center



Chairs are provided in the corridor for resting. The chairs contrast with the surroundings and are easily recognizable.

Kashiwara Community Center



Large windows provide ample natural light. The staircase handrails are in a contrasting color to the surroundings and are easily recognizable.

Toilet at Iki-no-Matsubara Stone Fortifications



Appropriately-sized signs have been installed, and the use of distinctive colors on the signs makes them easily recognizable as toilets from a distance.

Sawara Minami Community Exchange Center (Tomoterasu Sawara)



The contrast between the floor and the walls makes it easy to recognize the space. Doors for general use contrast with the walls and are easy to recognize.



There is an information sign in a color that contrasts with the surroundings and is easily recognizable. A floor map is provided.



Signs contrast with their surroundings and are easily recognizable. In addition, texts and pictograms are placed together.

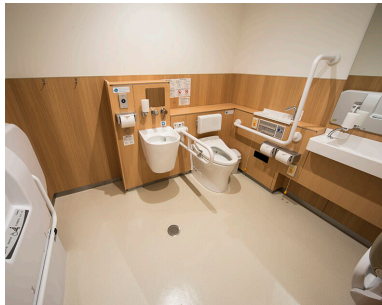
Fukuoka City Maizuru Government Building



The building name sign uses black lettering contrasting with the grey background, making it easy to recognize. The text is appropriately sized and legible from a distance.



The flooring uses low-reflectivity materials. Doors, benches, and other features stand out against their surroundings, making them easy to identify.



Toilet bowls and handrails contrast with the surrounding walls, making them easy to notice and allowing people to use the facilities with confidence.

Kushida Shrine Station, Nanakuma Line, Fukuoka City Subway



There is a contrast between the floor and the wall, making it easy to recognize the space. Items to be recognized, such as pillars and handrails, are contrasted against their surroundings.



Toilets use distinctive colors. Signs use pictograms (combinations of people and actions) that are easy for people with dementia to understand.



Pictograms are displayed in large sizes and in contrasting colors, so that they can be recognized from a distance. Doors are contrasted against their surroundings.

Fukuoka 100 Plaza Nishi



Contrasting floors, walls, and seating surfaces help define the lounge area, while plants create a calm atmosphere.



The DIY room is visible from outside, helping people feel at ease. A frame and signage highlight the entrance, making it easy to identify.



Toilet doors and handrails contrast with their surroundings, making them easy to identify. Door signage clearly indicates the room's purpose and entrance, providing reassurance.

Hakata Station, Nanakuma Line, Fukuoka City Subway



The floor and walls contrast against each other for easy spatial recognition. To make the washbasin easy to recognize, the rear part is in a contrasting color to the washbasin.



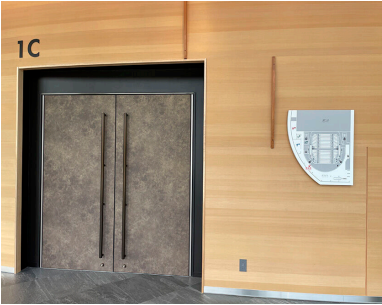
To make the toilet bowl and handrails easy to recognize, the rear part is in a contrasting color.

Fukuoka City Hall

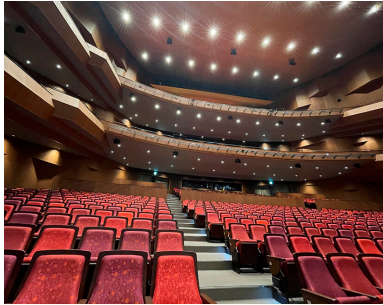


Floors (including dirty dripstone) are flat and have a uniform contrast, as strong contrasts on the floor may appear as holes or steps.

Fukuoka Civic Hall



Hall doors contrast with the surrounding walls, making the entrances easy to identify. Signs are placed for easy identification from a distance.



Seats and step edges contrast with their surroundings for easy identification. Non-reflective flooring helps reduce glare and visual confusion, helping people feel at ease.



The floor and walls have sufficient contrast to make the space easy to perceive. The walls and floor contrast with toilet bowls, washbasins and other fixtures, making them easy to identify.

Column

Home-design innovations that make life easier for people with dementia

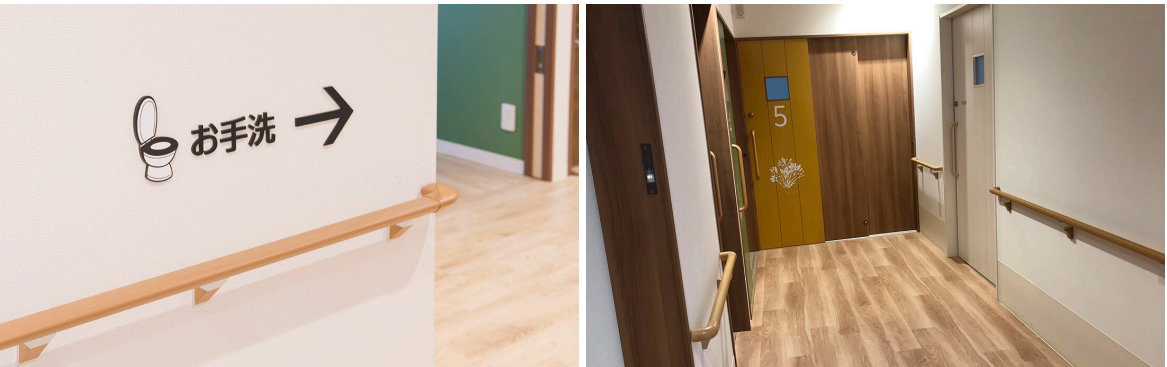
To help people with dementia live independently in familiar environments as long as possible, respect their wishes and create comfortable spaces by working with their families and health and social care professionals.

Use the five perspectives and 30 key points in this guide to incorporate as many of the recommended design features as possible.

1 Entrances and corridors

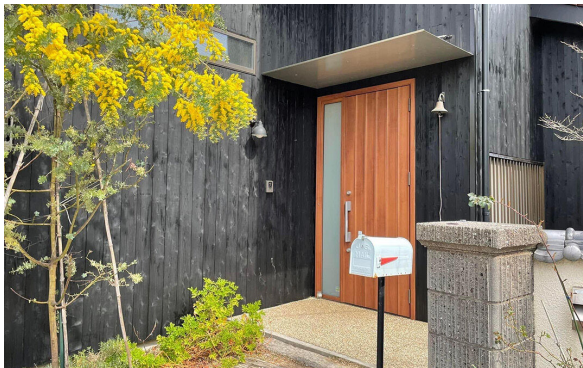
① Support safe movement with easy-to-find designs

When installing handrails and steps to overcome level changes, consider not only their height and shape but also whether they contrast sufficiently in lightness with surrounding walls and floor. This makes them easily recognizable, promoting safe movement.



② Place familiar items as clues to the home

As memory declines, environmental cues become more important. Since people with dementia may sometimes lose track of where they live, placing a familiar landmark near the entrance can help them identify their home more easily and reduce anxiety when going out.



2 Toilets

Supporting confidence and independence with intuitive signage

Using the toilet is closely connected to personal dignity. Being able to find and use the toilet independently, without getting lost, provides reassurance and helps maintain self-confidence.

Point Place clear signs combining text and pictograms on toilet doors. Ensure the door contrasts sufficiently in lightness with its surroundings.

Point Add clear markers to flush buttons and trash bins to facilitate independent use.

A study at care facilities in Fukuoka City* reported that improved sign placement made it easier for people to reach the toilet independently, reducing the need for guidance by approximately 37%.
(*Source: 2025 verification at city care facilities by the Fukuoka Dementia-Friendly Design Guideline Study Committee)



3 Dining tables

Choose tableware colors that make everyday meals more enjoyable

As dementia progresses, boundaries between objects can become hard to see. For example, serving white rice in a white bowl can make it difficult to distinguish the food from the tableware, which may reduce eating.

Point Clearly contrasting the colors of food and tableware makes food easier to recognize.

Point Choosing easy-to-distinguish combinations, such as dark bowls for white rice, can be effective.

An international study reported that serving people with Alzheimer's disease using tableware with a clear contrast in lightness increased food intake by 25% and fluid intake by 84%. (Source: Dunne et al. (2004))



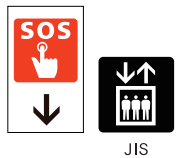
Survey on the dementia-friendliness of signs

To identify trends and effective ways to present information on signs easy for people with dementia to understand, we conducted surveys with people with dementia in 2019 and 2025.

Based on the findings, we introduce the "Basic Principles of Signs" and "Dementia-Friendly Signs". Please use these as a reference when planning signs suited to your buildings and spaces.

How people with dementia perceive signs [2019 Survey]

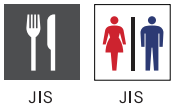
① Seeing parts rather than the whole picture.



Examples:

- "Emergency call button" → "Woman's hand"
- "Elevator" → "Three people" or "Three-seater"

② Understanding pictograms only by their visible shapes.



Examples:

- "Restaurant" → "Knife and fork"
- "Toilet" → "Man and woman"

③ Pictograms requiring learning are difficult to understand.



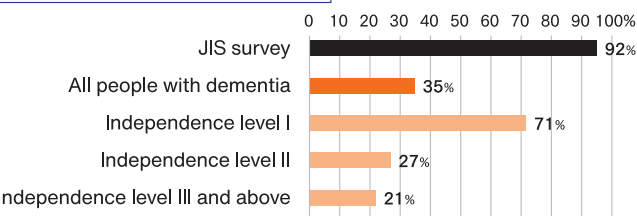
Examples:

- "Toilet" → General public: 92 points
People with dementia: 35 points

<Examples of incorrect answers>

- | | |
|---------------------------------|---------------|
| Place for men and women to talk | Entrance/exit |
| Place to eat | Man and woman |
| Reception room | Business suit |

Correct response rate by user group



Basic principles of signs [2019, 2025 Survey]

Principle 1: Use words and pictograms together

People with dementia understood words like "Dining Room" (95.1%) and "Bath" (90.2%) very well. Therefore, using text and pictograms together on signs is effective.

• Role of pictograms:

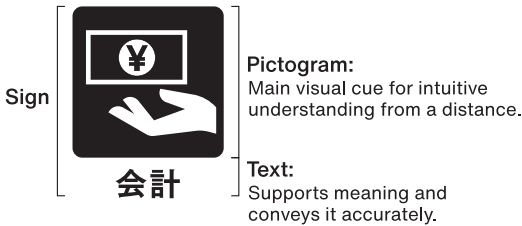
Main visual cue for intuitive understanding from a distance.

• Role of text:

Supporting information for conveying meaning accurately.

• Importance of text size:

Small text can be difficult to understand, so choose an appropriate sign size based on the distance from which it will be read.



The following types of pictograms are particularly difficult to understand on their own, so it is essential to include text alongside them.

- **Action instructions:** e.g., "Pull", "Hold your hand over", "Flush".
- **Symbols distinguishing direction of movement:** e.g., "Bus boarding" and "Alighting area".
- **Complex information:** e.g., Garbage sorting rules and manners.

Principle 2: Prevent misunderstandings with emergency and regulatory signs

Studies have shown that pictograms needed in emergencies, like "Emergency exit" and "Emergency call button", can be particularly difficult for people with dementia to understand. About 15% of participants also interpreted the horizontal or diagonal lines used to indicate "No entry" as the opposite instruction, such as "Go straight".

- To indicate "No entry", it is effective to use a specific pictogram showing a person entering a room with an "X" overlaid on it.
- If the pictogram itself cannot be changed, or for emergency signs, it is desirable to include accompanying text such as "No entry" and "Emergency exit".

Emergency exit

General public (not surveyed)
People with dementia 29 points



Correct answer
"No entry"

Correct response rate among people with dementia

Opposite-meaning response rate

Ticket gate	70.8%	15.4%
One-way	73.8%	15.4%

No entry

General public 85 points
People with dementia 8 points



Emergency call button

General public 88 points
People with dementia 28 points



Correct answer "No entry"



Correct response rate

8.4%

Correct answer "No entry"



81.9%

Principle 3: Use left-right arrows as the default; always include text with up-down arrows

People with dementia often have difficulty understanding "Up/Down" arrows indicating "Go straight" (↑) or "Turn back" (↓).

- Prioritize left- and right-pointing arrows.
- If up- and down-pointing arrows are used, accompanying text such as "Go straight" or "Turn back" must be included.
- A U-turn arrow is more effective than a downward arrow (↓) to convey "Turn back".

Correct response rate among people with dementia

Correct answer "Go right"	→	Right-pointing arrow	60.7%
Correct answer "Go straight"	↑	Upward arrow (Go straight)	36.1%
Correct answer "Turn back"	↓	Downward arrow (Turn back)	8.2%
Correct answer "Turn back"	↪	U-turn arrow (Turn back)	19.7%

Elements of easy-to-understand pictograms

1. Combining "objects" and "human actions (people)"

Meanings should be understood intuitively, without relying on memory or prior learning.

• Expressions combining "objects and human actions (or people)" (B-D) tended to result in higher comprehension than those depicting "only objects" or "only people" (A).

	正答「トイレ」	認知症の人の正答率
A Conventional JIS		35.0P (Comprehension was scored out of 100 points.)
B Standard Pictogram (JIS Style)		80.3%
C Standard Pictogram (JIS Style)		75.4%
D Universal Pictogram (Casual Style)		58.5%
E Universal Pictogram (Casual Style)		45.0%

2. Utilizing the symbolic meanings of colors

Color-based information is a crucial cue for understanding shapes.

• More participants correctly identified blue for male toilets and red for female toilets than those who responded incorrectly. This suggests color symbolism is readily understood when limited to conventional associations of blue with men and red with women.

Dementia-friendly signs

The 2025 comprehension survey developed two pictogram categories: the Standard Pictogram (JIS style), intended for public facilities, and the Universal Pictogram (casual style), intended for commercial facilities such as restaurants and shops. The choice of pictogram should consider both the characteristics of facility users, including the level of independence among people with dementia, and the type and purpose of the facility.

< Design features >

1. Meanings can be understood intuitively without relying on memory or prior learning.
2. Meanings are accurately conveyed by combining objects and human actions.

Examples of the conventional JIS, the newly created "Standard Pictogram (JIS style)" and the "Universal Pictogram (casual style)"

Cafeteria

Conventional "JIS"

Standard Pictogram (JIS style)

Universal Pictogram (casual style)

Reference Materials: Survey Overview

1. 2019 Pictogram Comprehension Survey

(1) **Objective:** To identify characteristics of signs that are easy for people with dementia to understand. (2) **Number of participants:** 97 people with dementia. (3) **Distribution of survey participants by level of independence in daily living among older adults with dementia:** Level I: 17, Level II: 45, Level III and above: 25, Not specified: 10. (4) **Survey and evaluation methods:**The survey and evaluation methods were based on ISO 9186-2000 (Procedures for the development and testing of graphical information symbols) and JIS S 020003-2000 (Test procedures for graphical symbols used in consumer warnings). Comprehension was expressed as a score on a 100-point scale and calculated using the prescribed evaluation formula. During the survey,the interviewer presented the questionnaire to each participant and recorded their verbal responses.

2. 2025 New Pictogram Comprehension Survey Overview

(1) **Objective:** To examine how people with dementia understand text, signs, arrows, and current location indicators, and to identify principles for designing guidance displays that are safe, clear, and easy to understand. (2) **Survey participants and their distribution by level of independence in daily living among older adults with dementia:**

1. Preliminary survey (to evaluate existing signage and basic design features): 65 people with dementia (from eight elderly care facilities in the city).- Level I: 5, Level II: 17, Level III: 27, Level IV: 8, Level M: 3, Unknown: 5.
2. JIS style survey: 72 people with dementia (from seven elderly care facilities in the city) and 107 members of the general public.
- Breakdown of people with dementia: Level I: 3, Level II: 31, Level III: 26, Level IV: 5, Level M: 4, Unknown: 3.
3. Casual style survey: 130 people with dementia (from 26 elderly care facilities in the prefecture).- Level I: 21, Level II: 65, Level III: 32, Level IV: 9, Level M: 1, Unknown: 2.

(3) **Survey and evaluation methods:** Pictogram comprehension is measured as the percentage of correct responses, calculated using the formula specified in JIS Z 8212 (Methods for testing the comprehension of graphical symbols).tt

List of dementia-friendly signs

*Can be downloaded from the Fukuoka City website.
Search for 'Fukuoka City dementia-friendly signs'!

List of Standard Pictograms (JIS style)

Group A

Do not display pictograms on their own; always use them as signs accompanied by text.

Toilet

Women's toilet

Men's toilet

Accessible toilet

Toilet

Accessible toilet

Women's toilet

Men's toilet

Accessible toilet

Dining room

Shower room

Washroom

Cashier

Information desk

No entry

Do not enter

Do not open the door suddenly

Please wear a mask (JIS Z8210)

Group B

The pictogram incorporates text within its frame, allowing it to function as a standalone sign.

Automatic faucet (Toilet)

Automatic faucet (Washroom)

Opens to the left Push door to open

Opens to the left Pull door to open

Pull to the left Slide door to open

How to lock and unlock the stall door

Opens to the right Push door to open

Opens to the right Pull door to open

Pull to the right Slide door to open

Garbage sorting (Combustible garbage)

Garbage sorting (Non-combustible garbage)

Garbage sorting (Empty glass bottles and PET bottles)

Garbage sorting (Plastic)

Garbage sorting (Oversized garbage)

Go left

Go right

Go straight

Turn back

現在地 (You Are Here)

Group C

Although text is incorporated within the pictogram frame, the facility name must be displayed together with the pictogram for it to serve as a sign.

(Practical examples)

バス のりば

バス 降車場

TAXI のりば

TAXI のりば

バス のりば

バス 降車場

TAXI のりば

TAXI のりば

List of Universal Pictograms (casual style)

Group A

Do not display pictograms on their own; always use them as signs accompanied by text.

Toilet (Object + Human action)

Accessible toilet (Object + Human action)

Women's toilet (Object + Human action)

Men's toilet (Object + Human action)

Accessible toilet (Object + Human action)

Toilet (Object + Person(s))

Accessible toilet (Object + Person(s))

Women's toilet (Object + Person(s))

Men's toilet (Object + Person(s))

Accessible toilet (Object + Person(s))

Dining room

Shower room

Washroom

Bath

Elevator

Information desk

Cashier

Wear a mask

Group B

The pictogram incorporates text within its frame, allowing it to function as a standalone sign.

Automatic faucet (Washroom)

Opens to the left

Opens to the left

Pull to the left

Opens to the right

Opens to the right

Pull to the right

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Fukuoka Dementia-Friendly Design 43

Chapter 5

List of key points of dementia-friendly design

To check whether the living environment is dementia-friendly, 30 points have been compiled as a checklist for each location. Use the checklist to assess the degree of dementia-friendliness in each location.

	Design points	Corridors and entrances	Living room	Dining room	Bedroom	Bathrooms and toilets	Outdoors
D Considering familiarity and security	13. Create a homely atmosphere.	☐	☐	☐	☐	☐	
	14. Create spaces where people can choose what they want to do.	☐	☐	☐			
	15. Keep spaces clutter-free.	☐	☐	☐	☐	☐	
	16. Provide a direct view of the intended place or object.		☐	☐			
	17. Reduce echoes and noise in the room.	☐	☐	☐	☐	☐	
	18. Select and arrange furniture that is easy to use and accessible.	☐	☐	☐	☐	☐	☐
	19. Do not lock doors used by people with dementia.		☐	☐	☐	☐	☐
	20. Make dead-ends interesting and relaxing.	☐					
	21. Prepare a space where people can concentrate on eating.			☐			
	22. Avoid using large or strong patterns.	☐	☐	☐	☐	☐	
	23. Place windows where people can see outside even when sat down.	☐	☐	☐	☐		
	24. Position the toilet in a place that is easily seen.	☐	☐	☐	☐	☐	
E Safe outdoor spaces	25. Provide safe access to and from the outdoors.						☐
	26. Ensure that pedestrian areas are free of steps, slips and reflections.						☐
	27. Make it easy to reach toilets from outdoors.						☐
	28. Arrange garden furniture such as flowerbeds for enjoyable activities.						☐
	29. Provide benches for resting and relaxing.						☐
	30. Make it easier for children to visit.						☐

	Design points	Corridors and entrances	Living room	Dining room	Bedroom	Bathrooms and toilets	Outdoors
A Color (lightness) combinations	1. Increase contrast in lightness.	☐	☐	☐	☐	☐	☐
	2. Reduce contrast in lightness.	☐	☐	☐	☐	☐	☐
B Utilizing signs and landmarks	3. Provide legible and easily recognizable signs.	☐	☐	☐	☐	☐	☐
	4. Place signs in appropriate locations.	☐	☐	☐	☐	☐	☐
	5. Place signs on the surface of toilet doors.					☐	
	6. Place memorabilia that trigger positive memories in front of the own room or home.	☐			☐		
	7. Place distinctive landmarks in appropriate places.	☐					☐
C Adjusting lighting	8. Arrange ample lighting.	☐	☐	☐	☐	☐	
	9. Allow sufficient natural light in.	☐	☐	☐	☐		
	10. Adjust lighting according to the time of day.	☐	☐	☐	☐		
	11. Reduce unpleasant glare.	☐	☐	☐	☐		
	12. Avoid shadows and dark areas in corridors.	☐	☐	☐	☐		

Chapter 6 Initiatives in Fukuoka City

The Dementia-Friendly City Project

Fukuoka City launched the Dementia-Friendly City Project in 2018 with the aim of becoming a city where people with dementia can live in their own way with peace of mind in their own familiar neighborhoods. The project is undertaken through industry-government-academia collaboration, incorporating the perspectives of people with dementia.

Dementia-friendly design

The Dementia-Friendly Design Guidelines were published in March 2020 to promote the development of living environments that enable people with dementia, their families and caregivers to live with greater peace of mind and less stress. As of the end of FY2025, these concepts have been implemented in 147 facilities, including public facilities and elderly care facilities.

Fukuoka City is promoting dementia-friendly initiatives in both physical and social environments. It has started developing dementia-friendly products in collaboration with companies and people with dementia since 2021, and implementing design in urban planning on a trial basis since 2022. The Fukuoka Dementia-Friendly Center was opened in September 2023 and provides a design showroom for general public as well as creating opportunities for people with dementia to play active roles in the society.



Cover of the first edition



A session of the Humanitude® course

Dementia communication and care technique Humanitude®

Humanitude® is a care method to facilitate communication with people with dementia by telling them "I care about you" in a way that they can understand. Fukuoka City started the initiative in 2018 and trained its own instructors. Courses are held for different target groups, such as local communities, children, family carers, first responders and companies, to spread and raise awareness of better care for people with dementia.

Fukuoka Orange Partners

Established in June 2021, the consortium encourages companies and organizations to voluntarily "learn," "reflect," "connect," and "take action" regarding dementia. As of the end of fiscal year 2025, it had about 140 members. The consortium organizes workshops involving people with dementia and corporate representatives and promotes dementia-friendly products and services.

Orange Talent Bank

This is a talent bank dedicated to people with dementia. It is a part of effort to create a system where people with dementia can find purpose and hope and contribute effectively to the society. It aims to harness the expertise gained from experiences with dementia to create new values and innovation in collaboration with businesses.

Fukuoka Dementia-Friendly Center

The Fukuoka Dementia-Friendly Center has been operational since 2023 as a site to empower people with dementia and showcase various initiatives in the Dementia-Friendly City Project. It provides general public and businesses in Fukuoka City with the latest knowledge and technology, and exchanges ideas and initiatives with other areas in Japan and the international communities. It can be used by anyone, including people with dementia, the community, businesses and health and social care professionals.

Expanding Dementia-Friendly Design Across the Community

Fukuoka City is expanding dementia-friendly design beyond buildings to community-wide urban development, including outdoor environments, to further realize its vision of a city where people can live safely and as themselves in familiar communities even after developing dementia. Since there was no precedents in Japan for applying dementia-friendly design to outdoor spaces, Fukuoka City has developed its approach by drawing on international best practices and adapting them to Japanese lifestyles and cultural contexts. Since FY2022, the city has launched pilot programs in the Hashimoto Station area, including improvements to the station square and surrounding public spaces.



Report on the post-implementation evaluation of the outdoor demonstration project in the Hashimoto Station area

Evaluation of an inclusive city co-created with people with dementia

City planning from the perspective of people with dementia

We conducted outdoor pilot evaluations with people with dementia to assess whether the station square, bicycle parking, and other spaces incorporating dementia-friendly design are genuinely accessible and user-friendly. We use insights from their perspective in future city planning.

Pilot evaluations in progress



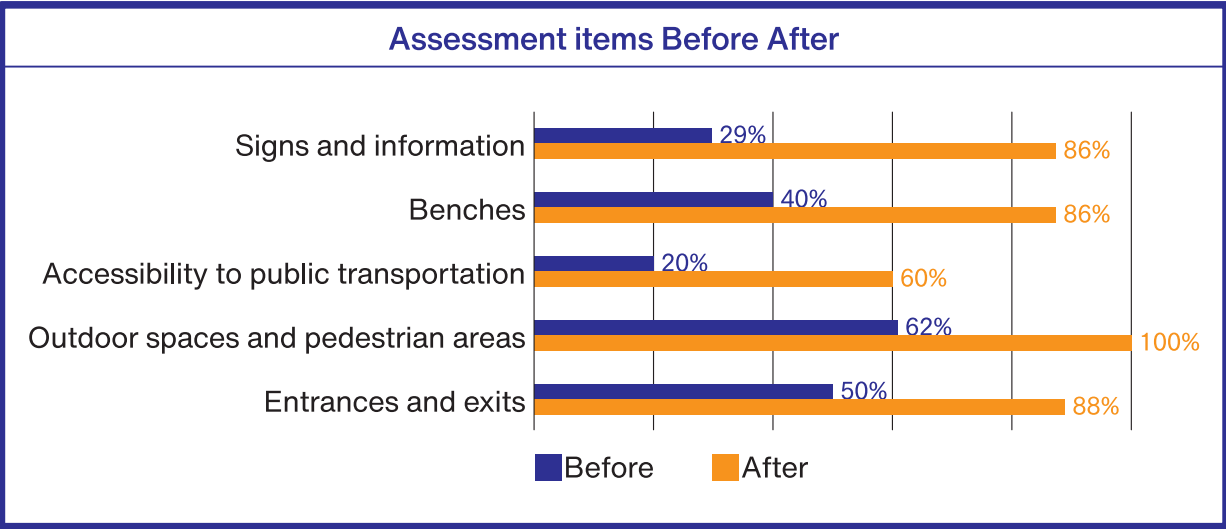
station square

bicycle parking

pedestrian areas

Environmental assessment (Station Square) (Evaluated using EADDAT*)

The results confirmed significant environmental improvements in the station square, with scores increasing across all assessment items compared with pre-implementation levels.



*EADDAT (Environments for Ageing and Dementia Design Assessment Tool)

An international assessment tool used to evaluate whether environments are understandable, safe and easy to use independently for older adults and people with dementia.

Future city planning

The evaluation showed that applying the principles of existing guidelines to outdoor spaces through these four key perspectives is essential for creating dementia-friendly outdoor environments.

1 Utilize intuitive lightness contrast and distinctive landmarks

Features such as bicycle parking gates and toilets that stand out through clear lightness contrast with their surroundings or unique shapes can serve as effective wayfinding landmarks. Designing environments with attention to lightness contrast, shape, and color can help people navigate more easily.

2 Guide people using a combination of signs and overall spatial environment

Place signs at users' eye level and along movement routes. When finding a destination, people use not only signs and text but also cues from the overall spatial environment, such as distinctive buildings, trees, and pathway configurations. Integrating signage with the surrounding environment helps people find their way intuitively.

3 Reduce anxiety through simple, positive guidance and continuous cues

Information-heavy signs and strongly prohibitive messages can create confusion and anxiety. Therefore, streamlining information is vital. Positive expressions like "Please use this route" rather than prohibitive instructions can be effective. Providing a continuous sequence of cues that reassures people they are on the correct route, while ensuring paths remain safe and navigable even if they become lost, can help reduce anxiety.

4 Integrate physical environments (hard) and human support (soft)

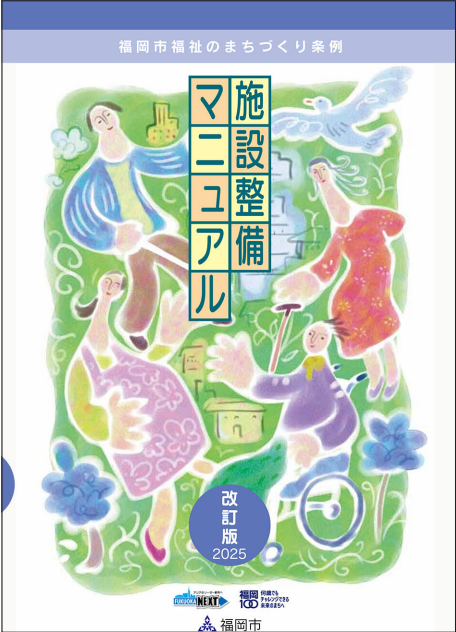
Alongside creating easy-to-understand environments, warm assistance and attentive support from staff when needed provide strong reassurance. To achieve this, integrate hard and soft approaches by incorporating dementia-related knowledge and practices, such as Humanity® and dementia supporter training programs, into management and operational training.

Post-evaluation methods

outdoor spaces	Station square	Bicycle parking	Roads and park
Period	FY2024	FY2025	As of August, FY2026
Subjects	2 people with dementia, 2 older adults	2 people with dementia	4 people with dementia
Task	Navigating from the subway ticket gate to a commercial facility	Navigating the parking facility from entry to exit.	Navigating from the station square to the park
Methods	Behavioral observation, interviews, and environmental assessment	Behavioral observation and interviews	Behavioral observation and interviews

Integration into the Facility Development Manual

A new manual created with experts



Integration into the Facility Development Manual

Based on insights from past initiatives, Fukuoka City collaborated with dementia-related organizations and experts to incorporate dementia-friendly design principles into the Enforcement Regulations of the Fukuoka City Welfare Community Development Ordinance and the Facility Development Manual (2025 Revised Edition). This aims to encourage wider implementation across more facilities.

The manual is available on the city website and can be purchased at:

Where to Purchase

Fukuoka City Information Plaza (1st Floor, Fukuoka City Hall)
Government Publications Service Center, Fukuoka Service Station
Fukuoka Association of Architectural Firms

 Access the Facility Development Manual here.

Major Revisions

To help those involved in facility development understand the need and objectives of dementia-friendly design, the manual includes explanatory sections on design introduction criteria, characteristics of dementia, basic design concepts, and a column introducing the Basic Act on Dementia to promote greater understanding.

Establishment of Standards

New environmental standards (e.g., guidance standards*) were established for facilities frequently used by older adults to create environments that are easier for people with dementia to understand and navigate. Implementation criteria for dementia-friendly design are provided for key facility elements, including stairs, elevators, toilets and signage.

Examples of guidance standards

Facilities requiring dementia-friendly design (subject to guidance standards):

Target facilities for dementia-friendly design	Facility type
	Hospitals and clinics; community centers; social welfare facilities primarily used by older adults and people with disabilities; public transport facilities; government offices expected to be used primarily by older adults and people with disabilities; parking lot; and public pedestrian walkways.

Note: For facilities not listed above, dementia-friendly design is also recommended, taking into account the needs of people with dementia who may use the facilities.

- Point Ensure sufficient lightness contrast between equipment and the surfaces on which they are installed (Munsell value contrast of 3 or more).
- Point Use text and pictograms together.

Examples of recommended design features

- Point Place identification signs at a height of 1.2 m to 1.3 m. (Also included as a recommended design feature for facilities not subject to the guidance standards.)
- *Guidance standards: Higher-level standards than the basic development requirements that facilities should strive to meet to improve accessibility and usability.
- *Recommended design features: Standard requirements plus added convenience and comfort.

8. 認知症の人にもやさしいデザイン

●認知症の人にもやさしい整備項目の誘導基準適用施設

認知症の人にもやさしい整備が必要な施設	用途
病院若しくは診療所、公民館、社会福祉施設（主として高齢者、障がい者等が利用するものに限る。）、交通機関の施設、官公庁舎（主として高齢者、障がい者等の利用が見込まれるものに限る。）、自動車車庫又は公共用歩廊	

注）上記以外の施設においても、認知症の人が利用することを考慮し、認知症の人にもやさしい整備項目について配慮することが望まれます。

[案内板]

●案内板（案内サイン類）に配置を表示するエレベーターその他昇降機、便所又は駐車施設には文字とピクトグラムを併記します。また、エスカレーター、階段、非常口を表示する場合は文字とピクトグラムを併記します。

●案内板の図及び文字と背景との明度の差を確保します。

◆標識のうち誘導サイン類には、文字とピクトグラムを併記することが望まれます。

◆標識の文字は、認知症の人や高齢者に配慮した大きさとすることが望まれます。

◆接近して見ることが想定される標識については、認知症の人、高齢者、車椅子の利用者等が見やすい高さ（1.2m～1.3m程度）に標識を設置することが望まれます。

*「明度の差」については、隣接する壁等においてマンセル値の明度差が3以上とすることが望まれます。ただし、標識の「文字や図」と「背景」の色については、明度の差が6以上あることが望まれます。

Examples of dementia-friendly design integrated into the facility development manual.

Fukuoka Dementia-Friendly Center

The Fukuoka Dementia-Friendly Center was opened in September 2023 as a site to empower people with dementia and showcase various initiatives in the Dementia-Friendly City Project. It provides general public and businesses in Fukuoka City with the latest knowledge and technology, and exchanges ideas and initiatives with other areas in Japan and the international communities. Anyone is free to visit, including people with dementia, their families, local residents, and those involved in the medical, nursing, and welfare fields. It is fully equipped with dementia-friendly design and has been awarded the highest level of accreditation (Gold) by the Dementia Services Development Centre (DSDC) at the University of Stirling, UK.

Key features

Active roles in the community



Creates opportunities that people with dementia can continue to play an active role in the community.

Social interaction



Organizes a working group of people with dementia to promote interpersonal communication and creates opportunities to encourage people with dementia and businesses to connect.

Learning/experience



Provides learning opportunities such as Humanityde® courses and AR experiences of dementia.

Information dissemination



Disseminates information on dementia, including the latest knowledge and technology, and holding of events and training.

Location

2nd floor, Fukuoka City Health Promotion Support Center: Airefu 2-5-1 Maizuru, Chuo-ku
4 min. walk from Exit 3 of Akasaka Station on the Airport Line, Fukuoka City Subway

Open hours

Tuesdays to Saturdays
(except national holidays and New Year's holidays)
10 a.m. – 6 p.m.

Contact for enquiries

Tel: +81(0)92-791-9115
Fax: +81(0)92-791-9550
Email contact@fdfc.jp



Airefu entrance.
Please use this as a landmark.

Lounge



In order to create a calm space, homelike lighting and furniture have been selected. Brightness is ensured by bringing in natural light and arranging sufficient lighting.

Entrance



Signs in colors that contrast with the surroundings are installed so that they are easily recognizable.

Reception



It is distinctive and landmarked, while at the same time creating a warm and welcoming atmosphere for anyone who comes in.

Handrail



A distinctive and recognizable handrail has been installed to draw attention to the sloping floor.

Consultation Room



The consultation room is furnished with plants and paintings to provide a calm and comfortable space.

Column

Creating an inclusive living environment for people with dementia

For people with dementia to live with dignity and hope

In January 2024, the Basic Act on Dementia to Promote an Inclusive Society came into effect. The Act was enacted to promote the prevention of dementia while aiming for a society where people with dementia can maintain their dignity and are respected as members of society. The basic principles of the Act include: consideration for the wishes of people with dementia and their families; enabling people with dementia to play an active role in society while maintaining their dignity; and providing appropriate support for decision-making by people with dementia.

Initiatives in response to the increase in the number of people with dementia worldwide

Initiatives in response to the increase in the number of people with dementia worldwide

The increase in the number of people with dementia due to the ageing of the population is a common issue worldwide, and countries around the world have been developing national dementia strategies.

In France, a national dementia strategy was formulated in 2001, the earliest in Europe. France is also the country where the dementia communication and care technique Humanitude® was born, and both the public and private sectors are working on dementia. Fukuoka City is also promoting this care method in cooperation with local communities and schools by holding Humanitude® Courses.

In Scotland, United Kingdom, the first National Dementia Strategy was released in 2010, and Scotland has now released four national strategies. The most recent, launched in 2023, sets out a 10-year vision, which was informed by people with a diagnosis of dementia and the most current research in dementia care, policy and environments. The University of Stirling's Dementia Services Development Centre (DSDC) is a prominent international research center on dementia-friendly environments, and was responsible for the researching, evaluating and analysing the data that underpins this new strategy. The DSDC was also responsible for the development of the Environments for Ageing and Dementia Design Assessment Tool and dementia-friendly products. This guide has been produced in cooperation with the DSDC at the University of Stirling.



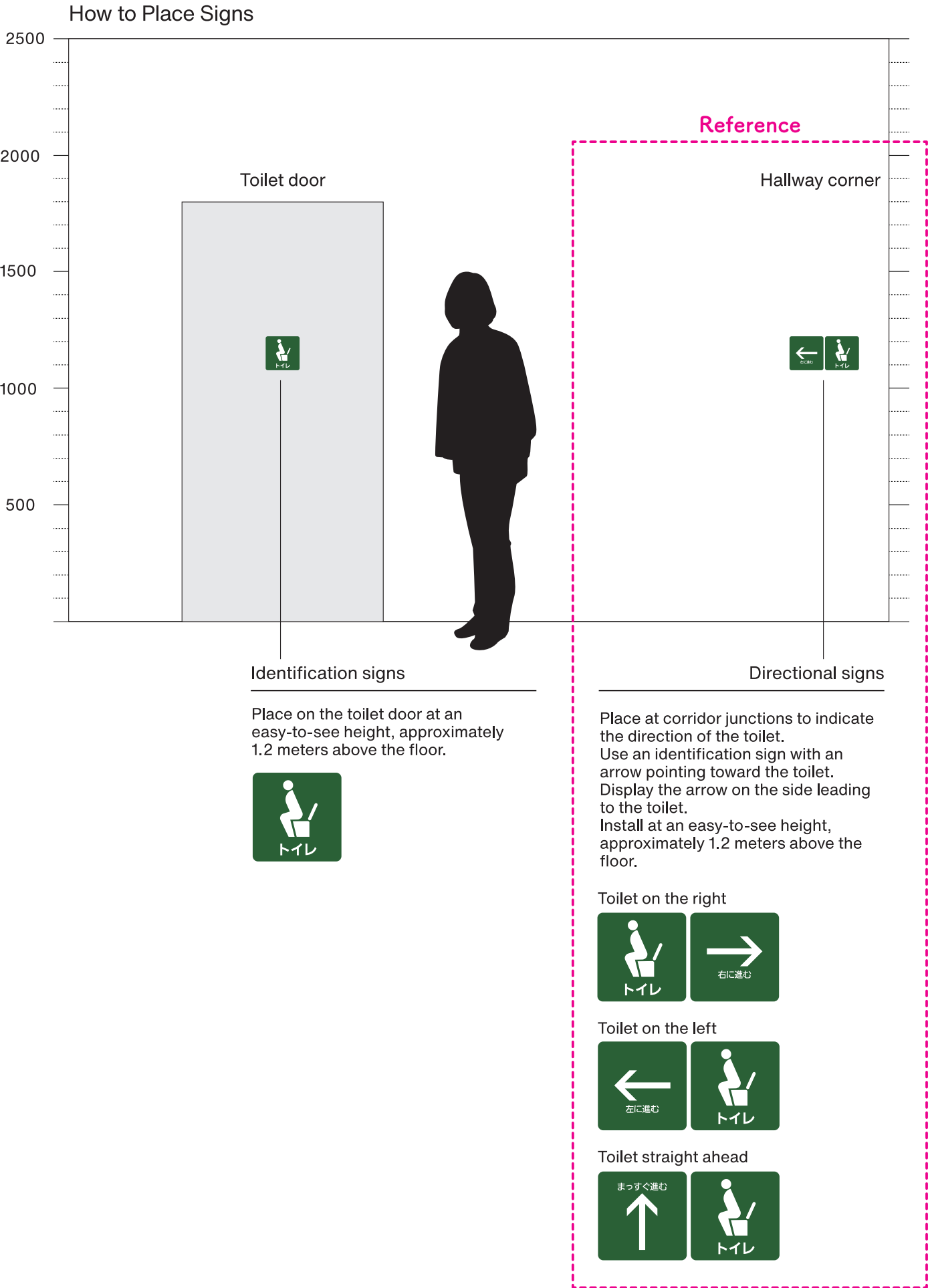
Fukuoka City to become a Dementia-Friendly City

Fukuoka City started the Humanitude® initiative in 2018, and has been conducting courses for local communities, schools and companies. In 2020, the city was the first in Japan to formulate a Guide to Dementia Friendly Design, which was adapted to Japanese culture and lifestyle, based on the findings of international research communities including DSDC at the University of Stirling. Furthermore, the Fukuoka Dementia-Friendly Center was established in 2023 and has started disseminating the latest findings not only in Fukuoka City but also in Japan and overseas.

As a leading city in dementia initiatives, Fukuoka City will continue to work towards achieving a society in which people with dementia can play an active role in their own way.

Appendix

Dementia-friendly toilet signs for home use



Please cut out along the dotted line before use.



Committee:

- Yoshihiro Ehara (Fukuoka Occupational Therapy Association)
 - Koji Ogomori (Professor, Department of Occupational Therapy, Faculty of Medical Science, Fukuoka International University of Health and Welfare)**.
 - Nozomu Oyamada (Fukuoka City Council of Welfare Facilities for the Elderly)
 - Toshimitsu Sadamura (Executive Director, Japan Sign Design Association)
 - Masaru Sato (Vice President, Kobe Design University, Professor Emeritus, Kyushu University)*
 - Tsutomu Shiga (Associate Professor, Department of Urban and Architecture Studies, Graduate School of Human Environment Studies, Kyushu University)
 - Hisashi Shibata (Landscape Architect, Professor, Department of Civil Engineering, Fukuoka University)
 - Ryuichi Yanagi (Representative Carer, Fukuoka Prefecture Branch of the Association of People with Dementia and their Families)
- *Chairperson **Vice-Chairman

Cooperation:

- Dementia Services Development Centre (DSDC), University of Stirling (UK)
- MEDIVA Inc.

Cover and layout:

- Atsushi Honda

Illustration:

- Yuiko Nagai

Photographs:

- Kofukan, Multifunctional long-term care in a small nursing group home, Healthcare Link Co., Ltd.
- Dream Care Ishimaru, Dementia Day Care Service, Social Medical Corporation Hakujujikai
- Shikata Housing Complex Meeting Place, Urban Renaissance Agency
- Yufunomiya Group Home, Communal Daily Long-Term Care for a Dementia Patient, Watanabe Co.,Ltd
- Rinnai Corporation
- welzo Co.,Ltd
- Sasagurisou, Special Elderly Nursing Home, Social Welfare Corporation Shinai-kai
- Ohori Park
- QuaRijn Senior Citizens Facility de Koekoek, (The Netherlands)

City-owned facilities:

- Hakata Ward Office, Jonan Ward Office, Fukuoka City Hall, Maizuru Government Building, Fukuoka 100 Plaza Nishi, City’s community centers, Mushiroda Kaikan, Minami Civic Center, Sawara Minami Community Exchange Center (Tomoterasu Sawara), Jonan Ward Public Pool, Fukuoka City Subway Nanakuma Line Kushida Shrine Station, Fukuoka City Subway Nanakuma Line Hakata Station, Fukuoka Civic Hall, Toilet at the Iki-no-Matsubara Stone Fortifications, Ishimaru Central Park, and Maizuru Park

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